

Full Length Research Paper

Computer self-efficacy, computer anxiety, performance and personal outcomes of Turkish physical education teachers

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The purpose of this study is to determine the computer self-efficacy, performance outcome, personal outcome, and affect and anxiety level of physical education teachers. Influence of teaching experience, computer usage and participation of seminars or in-service programs on computer self-efficacy level were determined. The subjects of this study were 145 physical education teachers. Data were collected by survey which was developed by Compeau and Higgins. This scale was translated to Turkish by researcher. Cronbach alpha was found as .87. The results of the study showed that the mean of computer self-efficacy of physical education teachers is 6.13. There was a significant positive correlation among participants' computer self-efficacy, performance outcome, personal outcome and affect and a significant negative correlation between participants' computer self-efficacy and anxiety level. The study showed that as the duration of computer usage increased, participants' computer self-efficacy level increased and anxiety level decreased.

Key words: Computer self-efficacy, physical education teachers, experience, anxiety.

INTRODUCTION

Technology plays an important role in the development of education and it changes very fast from day to day. Teachers are expected to incorporate technology in their teaching. In order to follow changes in technology, Turkish teacher education program offers educational technology course to help pre-service teachers to become more knowledgeable in the basic concepts of technology and to gain basic computer skills such as word processor, internet usage, power point, database etc.

Physical education has a quite different nature of its' teaching, learning and organization of course. Although it might be seem that the physical education course would be the last place where technology especially computer would be used, like other teachers, physical education teachers are expected to use office automation software to prepare lesson plans and assignments to store and process student data; and also to convey audiovisual information to students as well as the Internet for running courses, for advocacy and communication with parents

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and students, and for their own professional development (Papastergiou, 2010). But simply accessing computers at schools does not necessarily guarantee that teachers use it in schools (Tezci, 2011 cited in OECD, 2004). In addition to access, psychological and organizational factors play a critical role in the Information Communication Technology integration (Stuart and et al., 2009). Self-efficacy is one of these psychological factors that influence teachers' computer usage.

Self-efficacy, as defined by Bandura (1997), is "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performances".

According to his Social Cognitive Theory (1977), self-efficacy beliefs help determine the choices people make, the persistence and perseverance they display in the face of difficulties and the degree of anxiety toward tasks in their life. It has been proposed that individuals base self-efficacy judgments on four main sources of information that vary in appraisal value (Bandura, 1997). Individuals weight the contributions of these sources of information and generate a self-appraisal of their capability to perform the behavior of interest (Murphy et al., 1989). These four sources are briefly described below in decreasing order of influence (Bandura, 1997).

1. Enactive mastery experience: These experiences are the most powerful source of efficacy information because they provide the most authentic evidence of whether one can muster whatever it takes to succeed. They are interpreted results of one's previous performance or mastery experience.
2. Vicarious experience: Observing other persons successfully perform the actions that are contemplating; individuals think if others can accomplish tasks, they tend to have the capabilities to raise their performance.
3. Verbal persuasion: It involves verbal input from others that strengthen a person's belief that he or she possesses the capability to achieve a desired level of performance.
4. Physiological and affective states: A person's level of arousal can influence his or her self-efficacy beliefs. Arousal such as elevated heart and respiratory rate, trembling hands etc. are perceived as a treat.

Computer self-efficacy is based on self-efficacy. It refers to "a judgment of one's capability to use a computer" (Compeau and Higgins, 1995). Computer self-efficacy is an important trait that influences individuals' decision to use computers. Individuals with higher computer self-efficacy beliefs tend to see themselves as able to use computer technology on the other hand; individuals with lower computer self-efficacy beliefs become more frustrated and more anxious working with computers and hesitate to use computers when they encounter obstacles (Karsten and Roth, 1998).

Research focused on the relationship of individual and situational factors to computer self-efficacy. One of these

factors is the influence of computer experience on computer self-efficacy. Computer experience is interpreted according to the amount of time an individual has spent working with computers and the different applications they have learned to use. Research supports that there is a positive correlation between computer self-efficacy and computer experience (Marakas et al., 1998; Torkzadeh et al., 1999).

Computer self-efficacy is the most essential factor related with computer skills and computer usage. Research supports that individuals' computer experience has a positive impact on computer self-efficacy. As individuals' experience with computers increases, their computer self-efficacy level increases too (Saleh, 2007; Embi, 2007; Koçak et al., 2003; Papastergiou, 2010).

Computer self-efficacy level changes according to individuals' year of job experience. As individuals' experience in their jobs increase, their computer self-efficacy becomes decrease (Özçelik and Kurt, 2007; Aktağ, 2014). Özçelik and Kurt (2007) found teachers who have 0-5 years teaching experience and between 21-25 years old have the highest computer self-efficacy level. Aktağ (2014) investigated faculty members' computer self-efficacy level and found highest computer self-efficacy level was for academicians with 0-5 years experience at university; the lowest computer self-efficacy level was for academicians with 21 years and more teaching experience at university.

Computer acceptance by teachers is an important factor for the successful integration of computers into teaching process. It is necessary to determine the reasons of the use and misuse of computers in teaching. Computer anxiety might be a reason for not using computers effectively. Research supports that more experience with computers reduces the level of anxiety (Compeau et al., 1999). They investigated the relationship among computer self-efficacy, personal and performance outcome, anxiety, affect and computer usage. As a result of their study, they found significant relationship between computer self-efficacy and outcome expectations, and between computer self-efficacy and affect, and anxiety and computer usage. Computer self-efficacy was negatively correlated with anxiety. Also Embi (2007), Durndel and Haag (2002), Şimşek (2011) and Chou (2003) found similar results in which as individuals' computer self-efficacy level increases, the level of anxiety decreases. The literature suggests that seminars-workshops or in-service trainings have an impact on the computer self-efficacy. Fasetiyan et al. (1996) found in-service program enhanced the computer self-efficacy of the faculty members. Hasan (2003), Seferoğlu et al. (2008) and Bütün (2005) found attending in-service programs or workshops increased teachers' computer self-efficacy level significantly.

Specifically, this study investigated the following hypotheses related with the research model:

1. The higher the computer self-efficacy, the higher the

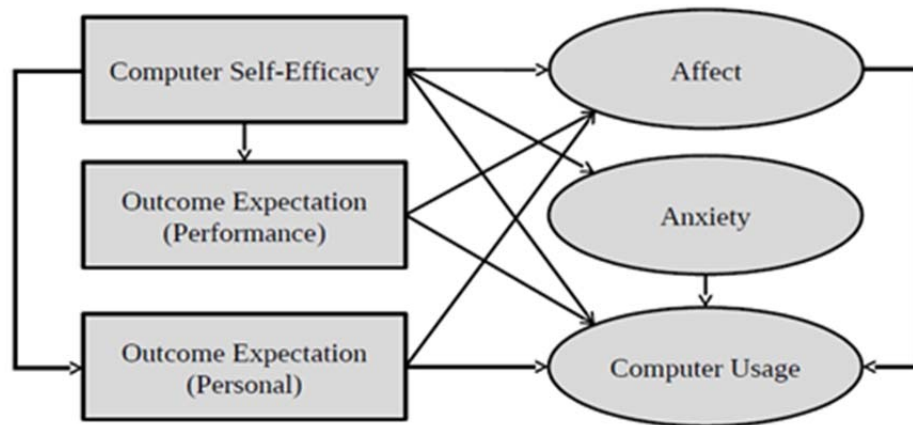


Figure 1. Link between cognitive and affective factors.

affect, performance and personal outcome.

2. The higher the computer self-efficacy, the lower the anxiety.
3. The higher the computer self-efficacy, the higher the positive influence on computer usage.
4. The higher the personal and performance outcome, the higher use of computers.
5. The higher the affect, the higher the positive influence on computer usage.
6. The higher the individuals' computer anxiety, the lower his/her use of computers.

Computer self-efficacy is an important personal trait that influences individuals' decision to use computers (Compeau and Higgins, 1995). A strong sense of computer self-efficacy of teachers can affect the extent as well as the way computers are used in schools and homes. This study will let us to have an idea of the extent physical education teachers integrate computers in their life. Also, there have been a few studies about physical education teachers. This study will make contribution to literature in this extent too.

In this study, a research model developed by Compeau et al. (1999) was used. This model identifies the linkages between cognitive factors (self-efficacy, performance related outcome expectations and personal related outcome expectations), affective factors (affect and anxiety) and usage of computer.

Self-efficacy reflects an individual's beliefs about his or her capabilities to use computers. Outcome expectations are consequences of using computers. There are two types: performance and personal outcomes. Performance related outcomes are associated with improvements in job or school performance, personal outcome expectations relate to expectations of change in image or status or to expectations of rewards such as raises, promotions or praises.

Affect and anxiety represent the affective responses of individuals toward using computers. Affect represents the

positive situations, for example, the enjoyment a person get by using computers; while anxiety represents negative situations, the feelings of apprehension or anxiety that one experiences when using computers. Using computers represents the degree of use of computers at work, school or at home (Figure 1).

Computer self-efficacy has been identified as a key determinant of computer related ability and use of computers. One aspect of computer self-efficacy is related to one's interest and willingness to use and interact with computers. Another aspect of computer self-efficacy pertains to computer training and acquiring new computer skills.

METHODOLOGY

Purpose of the study

The purpose of this study is to determine the computer self-efficacy, performance outcome, personal outcome, and affect and anxiety level of physical education teachers. And also influence of teaching experience, computer usage and participation of seminars or in-service training on computer self-efficacy level will be determined.

Participants

The participants were 145 physical education teachers. Surveys were distributed to physical education teachers during seminar in their city. At the beginning of seminar all participants were briefed on the purpose of study. Participation of study was voluntary. Physical education teachers were teaching at middle schools and high schools in cities: Bolu and Ankara, Turkey. Teachers were from variety of teaching experiences. These are: 0-5 years=23 teachers, 6-9 years=31 teachers, 10-14 years=47 teachers, 15-19 years=24 teachers and 20-more years=20 teachers.

Data collection instrument

In this research Computer Efficacy Scale was used. It was developed by Compeau and Higgins in 1995. The scale contains 6 parts:

Table 1. Means and standard deviations of physical education teachers' computer self-efficacy, performance outcome, affect, anxiety and personal outcome.

	N	Min	Max	Mean (\bar{X})	SD
Computer self-efficacy	145	1.90	10.00	6.13	2.11
Performance outcome	145	1.00	5.00	3.74	1.03
Affect	145	2.00	5.00	3.61	.78
Anxiety	145	1.00	5.00	1.73	.78
Personal outcome	145	1.00	5.00	2.61	1.03

1- Computer Self-Efficacy (CSE) was measured by 10 items (Instrument developed by Compeau and Higgins, 1995). Participants were asked to indicate, on a 10 point scale, their ability to accomplish a task using on software package with different level of assistance. In scale, 1 represents not at all confident, while 10 represents totally confident.

2- and 3- Outcome expectations for Personal Outcome (PO) and Performance Outcome (PFO) were measured by 11 items with 5 point scale (Compeau and Higgins, 1995). In scale 1 represents very unlikely while 5 represents likely.

4- Affect (AF) was measured by 5 items with 5 point scale (Instrument developed by Koyd and Gressard, 1984). In scale 1 represents very unlikely while 5 represents very likely.

5- Anxiety (A) was measured by 4 items (Instrument developed by Heinssen et al., 1987). In scale 1 represents very unlikely while 5 represents very likely.

6- Computer usage was measured by 3 items, reflecting the duration of using computers at school and the duration of computer use at home on weekends and weekdays. Duration of use at work was measured in hours per day on a typical day, and was coded into three categories (less than 30 min., 30 min.-2 hours, 2 h and more). Duration of use at home was measured in hours and coded into 3 categories (up to 1 hour, 1 to 2 h and more than 2 h).

The survey was translated into Turkish by researcher and was verified by considering the opinions of 3 instructors.

According to the results of factor analysis, factor loading is found for Computer Self-Efficacy between 0.75-0.86; for Performance Outcome between 0.71-0.87; for Personal Outcome between 0.69-0.88; for Affect between 0.55-0.84; and for Anxiety between 0.86-0.91. Validity was found as 0.82 for the whole scale.

Reliability of each scale, Cronbach alpha, was found for Computer Self-Efficacy as 0.94; for Performance Outcome 0.87; for Personal Outcome 0.87; for Affect 0.72 and for Anxiety 0.92. Cronbach alpha was found for the whole scale as 0.87 (Aktağ, 2014).

Likert scale items changed according to sub-dimensions. A higher score on each item indicated a greater degree of confidence in that element of the basic skill set assessed by the scale except anxiety sub-dimension. In that sub-dimension low anxiety level was expected.

Reverse coding for the fourth and fifth items for Affect was applied due to the fact that the last two items were negative.

FINDINGS

In Table 1, arithmetic means of participants' Computer Self-Efficacy, Performance Outcome, Affect, Anxiety and Personal Outcome calculations are tabulated with their standard deviations.

As seen in Table 2, a significant positive correlation among participants' Computer Self-Efficacy and Perfor-

mance Outcome ($r=0,47$, $p=0,000<0,05$), Computer Self-Efficacy and Affect ($r=0,37$, $p=0,000<0,05$), Computer Self-Efficacy and Personal Outcome ($r=0,25$, $p=0,001<0,05$), Affect and Performance Outcome ($r=0,52$, $p=0,000<0,01$) was found. However, a negative correlation among participants' Computer Self-Efficacy and Anxiety ($r=-0,33$, $p=0,000<0,05$), Performance Outcome and Anxiety ($r=-0,35$, $p=0,000<0,01$), Affect and Anxiety ($r=-0,43$, $p=0,000<0,01$) was noticed.

According to Table 2, it can be said that as Computer Self-Efficacy increases, Performance Outcome, Affect and Personal Outcome scores of participants increase as well. On the other hand, as Anxiety score increases, Computer Self-Efficacy, Performance Outcome, and Affect scores decrease significantly.

Table 3 represents a comparison of teachers' Computer Self-Efficacy, Personal Outcome, Performance Outcome, Affect and Anxiety scores who participated and not certification programs or in-service programs. It is found that Computer Self-Efficacy, Personal Outcome, Performance Outcome and Affect scores increased after they received training while anxiety scores decreased. Only in Affect and Anxiety scores significant differences were found.

In Affect, means for participants who said YES is 3.51, and who said NO is 3.95. There was a significant difference between participants' affect scores $t_{(145)}=2,89$ $p=,004>,05$.

In Anxiety, means for participants who said YES is 1.84, and who said NO is 1.36. There was also a significant difference between participants' anxiety scores $t_{(145)}=3,23$ $p=,008>,05$.

When Table 4 is explored, it can be seen that Computer Self-Efficacy of physical education teachers changed significantly according to their teaching experience. The highest Computer Self-Efficacy score belongs to teachers who have 11-15 years of teaching experience ($\bar{X}=7.01$), and the lowest belongs to teachers who have 16-20 years of teaching experience ($\bar{X}=5.23$).

Performance Outcome and Affect scores of physical education teachers differed according to their teaching experience but this difference was not significant.

Personal Outcome scores for teachers who serve between 0-5 and 11-15 years were changed significantly. The highest Personal Outcome score belongs to teachers

Table 2. Pearson correlation results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome.

		Computer self-efficacy	Performance outcome	Affect	Anxiety
Performance Outcome	r	.47(*)			
	p	.000			
	N	145			
Affect	r	.37(*)	.52(**)		
	p	.000	.000		
	N	145	145		
Anxiety	r	-.33(*)	-.35(**)	-.43(**)	
	p	.000	.000	.000	
	N	145	145	145	
Personal Outcome	r	.25(*)	.52(**)	.31(**)	-.08
	p	.001	.000	.000	.214
	N	145	145	145	145

*p<.05; **p<.01.

Table 3. T test results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome due to participation of certification programs or in-service trainings.

	Certification or in-service training	N	\bar{X}	SD	t	p
Computer Self Efficacy	Yes	112	6.03	2.07	1.00	.321
	No	33	6.45	2.27		
Performance Outcome	Yes	112	3.73	1.07	.31	.757
	No	33	3.79	.89		
Affect	Yes	112	3.51	.79	2.89	.004*
	No	33	3.95	.67		
Anxiety	Yes	112	1.84	.79	3.23	.008*
	No	33	1.36	.61		
Personal Outcome	Yes	112	2.61	.97	.08	.933
	No	33	2.62	1.22		

*p<.05.

who serve between 11-15 years (\bar{X} =2.92) and the lowest belongs to teachers who serve between 0-5 years (\bar{X} =2.07).

Anxiety scores of physical education teachers were varied significantly in all categories. The highest (\bar{X} =3.61) Anxiety score belongs to teachers who serve more than 20 years and the lowest (\bar{X} =1.68) belongs to teachers who serve between 11-15 years.

As seen in Table 5, about half of the participants spend time using computer less than 30 min per day at work.

This shows us that the physical education teachers do not spend much time on computers. Significant differences were found among participants due to duration of computer usage at school. Physical education teachers who said they use computers at school between 30 min.-2 h have the highest Computer Self-Efficacy scores (\bar{X} =6.69).

In Performance Outcome; as teachers' computer usage increased, their Performance Outcome scores increased significantly. Teachers who said they use computers

Table 4. One way Anova results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome due to teaching experience.

	Teaching experience	N	\bar{X}	SD	F	p	Post Hoc (Tukey)
Computer self-efficacy	0-5	23	5.57	1.46	4.00	.004*	1<3, 4<3
	6-10	31	6.15	2.23			
	11-15	47	7.01	2.21			
	16-20	24	5.23	1.88			
	20 +	20	5.74	1.98			
Performance outcome	0-5	23	3.33	.76	2.40	.053	
	6-10	31	3.90	1.07			
	11-15	47	4.01	.88			
	16-20	24	3.54	1.13			
	20 +	20	3.55	1.26			
Affect	0-5	23	3.76	.84	2.28	.063	
	6-10	31	3.72	.70			
	11-15	47	3.72	.85			
	16-20	24	3.43	.64			
	20 +	20	3.21	.71			
Anxiety	0-5	23	1.77	.64	6.56	.000*	1<5, 2<5, 3<5, 4<5
	6-10	31	1.78	.78			
	11-15	47	1.68	.61			
	16-20	24	2.39	.65			
	20 +	20	3.61	1.01			
Personal outcome	0-5	23	2.07	.65	3.50	.009*	1<3
	6-10	31	2.81	.87			
	11-15	47	2.92	1.20			
	16-20	24	2.38	.97			
	20 +	20	2.50	.97			

Categories: 0-5 years=1; 6-10 years= 2; 11-15 years=3; 16-20 years=4 and 20 years or more =5.

more than 2 h a day, had the highest Performance Outcome score ($\bar{X}=4.28$).

In Affect; as in Performance Outcome, teachers who said they use computers more than 2 h a day had the highest Affect score ($\bar{X}=4.17$).

In Anxiety, Anxiety scores of teachers decreased significantly when they spend more time using computers. The lowest Anxiety score belongs to teachers who said they use computers more than 2 h a day ($\bar{X}=1.28$).

Personal Outcome is the only variable that there was no significant difference among participants due to duration of computer usage at school.

Table 6 shows the results of duration of computer usage of physical education teachers at home in weekdays. The numbers of participants in each group according to the amount of time they spend on computers are close.

Computer Self-Efficacy, Performance Outcome, Affect

scores of participants increased significantly as their computer usage time increased at home in weekdays. Teachers who use computer more than 2 h had the highest Computer Self-Efficacy ($\bar{X}=6.90$); Performance Outcome ($\bar{X}=4.26$); Affect ($\bar{X}=4.04$) and Personal Outcome ($\bar{X}=2.74$) scores, respectively.

The lowest anxiety scores, as expected, belong to teachers who said they use computer more than 2 h in weekdays ($\bar{X}=1.41$).

In Table 7, similar to Table 6, the numbers of participants in each group according to the amount of time they spend on computers are close.

Computer Self-Efficacy, Performance Outcome, Personal Outcome and Affect scores of participants increased significantly as they spend more time on computers. Teachers who said they use computers more than 2 h at home in weekend had the highest Computer Self-Efficacy ($\bar{X}=7.18$), Performance Outcome ($\bar{X}=4.32$),

Table 5. One way Anova results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome due to duration of computer usage at work in a day.

	Computer usage	N	\bar{X}	SD	F	p	Post Hoc (Tukey)
Computer Self-efficacy	Less than 30 min.	66	5.57	1.99	4.74	.010*	1<2
	30 min -2 h	59	6.69	1.96			
	More than 2 h	20	6.32	2.53			
Performance Outcome	Less than 30 min.	66	3.53	1.02	4.40	.014*	1<3
	30 min -2 h	59	3.79	1.02			
	More than 2 h	20	4.28	.89			
Affect	Less than 30 min.	66	3.38	.77	9.14	.000*	1<3 2<3
	30 min -2 h	59	3.68	.76			
	More than 2 h	20	4.17	.58			
Anxiety	Less than 30 min.	66	1.92	.86	5.90	.003*	1<3
	30 min -2 h	59	1.66	.70			
	More than 2 h	20	1.28	.50			
Personal Outcome	Less than 30 min.	66	2.51	1.00	.59	.555	
	30 min -2 h	59	2.70	1.03			
	More than 2 h	20	2.69	1.15			

Categories: Less than 30 min. =1; 30 min-2 h=2; More than 2 h=3.

Table 6. One way Anova results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome due to duration of computer usage at home in weekdays.

	Computer usage	N	\bar{X}	SD	F	p	Post Hoc (Tukey)
Computer Self-Efficacy	Less than 1h	54	5.75	1.82	4.32	.015*	1<3 2<3
	1-2 h	48	5.86	2.09			
	More than 2 h	43	6.90	2.32			
Performance Outcome	Less than 1 h	54	3.34	1.11	11.16	.000*	1<3 2<3
	1-2 h	48	3.72	.94			
	More than 2 h	43	4.26	.77			
Affect	Less than 1 h	54	3.21	.81	16.47	.000*	1<3 2<3
	1-2 h	48	3.66	.58			
	More than 2 h	43	4.04	.72			
Anxiety	Less than 1 h	54	2.04	.82	9.00	.000*	2<1 3<1
	1-2 h	48	1.66	.73			
	More than 2 h	43	1.41	.63			
Personal Outcome	Less than 1h	54	2.42	.98	1.53	.221	
	1-2 h	48	2.71	1.03			
	More than 2 h	43	2.74	1.07			

Categories: Less than 1 h=1; 1-2 h=2; More than 2 h=3.

Table 7. One way Anova results of computer self-efficacy, performance outcome, affect, anxiety, and personal outcome due to duration of computer usage at home in weekend.

	Computer usage	N	\bar{X}	SD	F	p	Post hoc (Tukey)
Computer Self-Efficacy	Less than 1 h	45	5.23	1.92	10.47	.000*	1<3
	1-2 h	58	6.06	1.99			2<3
	More than 2 hours	42	7.18	2.05			
Performance Outcome	Less than 1 h	45	3.33	1.11	12.38	.000*	1<3
	1-2 h	58	3.64	.89			2<3
	More than 2 h	42	4.32	.85			
Affect	Less than 1 h	45	3.29	.79	7.14	.001*	1<2
	1-2 hours	58	3.65	.71			1<3
	More than 2 h	42	3.89	.77			
Anxiety	Less than 1 h	45	1.77	.84	10.93	.000*	3<1
	1-2 h	58	1.99	.78			3<2
	More than 2 h	42	1.30	.51			
Personal Outcome	Less than 1 h	45	2.49	.97	3.09	.049*	2<3
	1-2 h	58	2.46	1.00			
	More than 2 h	42	2,94	1,08			

Categories: Less than 1 h=1; 1-2 h=2; More than 2 h=3.

Anxiety (\bar{X} =3.89) and Personal Outcome (\bar{X} =2.94) scores, respectively. In Anxiety, as it is expected, teachers' anxiety score dropped significantly as their computer usage hours increased.

DISCUSSION

In this study, a sample of Turkish physical education teachers' computer self-efficacy, performance and personal outcomes, affect and anxiety levels were investigated due to their teaching experience, participation of computer training program, and the time spent in computer usage.

A positive correlation was found among participants' Computer Self-Efficacy, Performance Outcome, Personal Outcome and Affect scores while a negative correlation was established between Anxiety and Computer Self-Efficacy, Performance Outcome, Personal Outcome and Affect scores. The results were in compatible with Compeau et al. model (1999), in which the computer self-efficacy, personal outcome, performance outcome, affect and lower the anxiety were higher. These results confirm the earlier study by Compeau et al. and support the findings that Computer Self-Efficacy and outcome expectations are strong and significant predictor of Affect and Anxiety. Also, findings of this study supported by Şimşek (2011), Embi (2007), Torkzadeh and Angulo (1992) that Computer Self-Efficacy has a negative correlation with Anxiety; as individuals' anxiety scores increase, their Computer Self-Efficacy scores decrease.

The results related with teachers' participation to any kind of computer training programs and their Computer

Self-Efficacy, Performance Outcome, Personal Outcome, Affect and Anxiety level showed that Computer Self-Efficacy, Personal Outcome, Performance Outcome and Affect scores of physical education teachers who said they participated training had lower scores than teachers who said they did not. Besides, Anxiety scores of physical education teachers who said they received training were higher than those who said they did not. Anxiety scores of teachers after training did not drop, on the contrary, increased significantly. In that situation, we need to question the effectiveness or reliability of these trainings or certification programs. Hence, teachers may have lack of interest to use computers, or they may not believe the importance and usefulness of computers in their educational environment. Accordingly, they did not benefit from these trainings. Another important issue might be the shortage of equipment in terms of hardware and software in their schools. This may cause no interest or motivation to benefit from computer trainings by teachers. The findings of this study were not supported by Faseyitan et al. (1996) which showed that computer training reduces the level of anxiety. Compeau et al. (1999) found in their study more experience with computers reduces the level of anxiety and increases computer self-efficacy.

According to the results related with teachers' job experience and their Computer Self-Efficacy, Personal Outcome, Performance Outcome, Affect and Anxiety levels, teachers who have 11-15 years of teaching experience had the highest computer self-efficacy, performance outcome and personal outcome while those teachers had the lowest level of anxiety. In this study, it was expected that inexperienced teachers will have

higher Computer Self-Efficacy scores than those more experienced teachers. However, inexperienced teachers had higher Anxiety and lower Computer Self-Efficacy, Performance and Personal Outcome scores than those of more experienced teachers. The reason for this might be the inexperienced teachers deal with many challenges at the beginning of their teaching career, like planning and organizing lessons, motivating students and maintaining discipline in classroom. In addition to these challenges, computers might be the less important issue for inexperienced teachers to deal with.

Contrary to these findings, Aktağ (2014), Özçelik-Kurt (2007), Çetin and Güngör (2012) have found in their studies that as teachers' job experience increased their computer self-efficacy scores decreased.

When it was viewed from the computer usage time at work, results showed us that teachers who stated they use computers between 30 min to 2 h had the highest Computer Self-Efficacy level. In Performance Outcome and Affect, teachers who use computer more than 2 h at work had the highest scores. Personal Outcome of teachers did not vary according to their time spent on computers. The reason for this might be teachers who have impractical expectations about the benefits of computers tend to be less satisfied and as a result of that they use computers less than those with more practical expectations. Furthermore, teachers who use computers more than 2 h a day have the lowest anxiety score level. Due to the research model, as computer usage increases Computer Self-Efficacy level is supposed to increase too. Yet in this study, two important circumstances occurred. First, the number of teachers who said they use computers more than 2 h is 20, for less than 30 min is 66, and for between 30 min-2 h is 59. As it can be seen from the numbers, physical education teachers do not use computer for a long period of time at work. The reason for this might be they think there are not many things to do with computers in their job, or they do not believe the benefits of computers in physical education teaching. Second, as mentioned before, even if the Computer Self-Efficacy and the Personal Outcome scores for 30 min-2 h have the highest mean among all scores, these scores were not significant. Additionally, school administrators need to provide support and encouragement to physical education teachers to use computers in school by rewarding them when they integrate computers with life at school.

In Anxiety score, as it expected by the research model, teachers' anxiety level reduced as they spend more time with computers. This study findings were supported by Özçelik and Kurt (2007); Sam et al. (2005) and Papastergiou (2010).

When it was looked at the computer usage at home during weekdays, results showed that as teachers spent more time on computers, their Computer Self-Efficacy, Personal Outcome, Performance Outcome and Affect scores increased. More teachers use computers at home

longer than they use at work. Again, results show similarity with teachers' computer usage at school. Personal Outcome did not differ according to the amount of time teachers spent on computers. In Anxiety, the longer teachers spent time with computers the lower Anxiety level they had.

Similar results gathered when it was asked teachers about duration of computer usage in weekends. As teachers' interaction with computers increased, their Computer Self-Efficacy, Performance Outcome, Personal Outcome and Affect scores increased and their Anxiety scores reduced significantly. This study finding was also supported by Özçelik and Kurt (2007) and Sam et al. (2005).

There are some limitations in this study. First, the study was carried out with restricted number of physical education teachers; therefore, future studies should be conducted with more teachers. Second, the gender differences were not considered as a research question because male-female balance could not be ensured. In the future studies computer self-efficacy of physical education teachers must be examined by considering gender.

Conclusion

1. There was a significant positive correlation among participants' Computer Self-Efficacy and Performance Outcome, Affect, Personal Outcome and a negative correlation among participants' Anxiety and Computer Self-Efficacy, Personal Outcome, Performance Outcome and Affect.
2. Physical education teachers who participated in computer training had lower Computer Self-Efficacy, Personal Outcome, Performance Outcome and Affect scores while higher Anxiety scores than physical education teachers who did not attend computer training.
3. Computer Self-Efficacy scores of physical education teachers changed significantly according to their teaching experience.
4. Significant differences were found among physical education teachers due to duration of computer usage at school. The highest Computer Self-Efficacy score belongs to teachers who use computers between 30 min.-2 h, the lowest Anxiety score to teachers who use computers more than 2 h.
5. Computer Self-Efficacy, Performance Outcome, Affect and Anxiety scores of physical education teachers changed significantly due to their computer usage at home during weekdays. The highest Computer Self-Efficacy score belongs to teachers who spend more than 2 h with computers and the lowest Anxiety score to teachers who spend more than 2 h on computers.
6. Computer Self-Efficacy, Performance Outcome, Affect, Personal Outcome and Anxiety scores of physical education teachers changed significantly due to their

computer usage at home during weekends. The highest Computer Self-Efficacy, Performance Outcome, Personal Outcome and Affect scores belong to teachers who spend more than 2 h with computers. Anxiety scores of physical education teachers dropped as they spent more time on computers.

Computer self-efficacy is not only an individuals' perception of his/ her ability to perform a particular task based on past performance and experiences but also forms a critical influence on future intention. In near future every teacher including physical education teachers too, will have to involve in some way in technology especially computers, in their life. It is expected that this research will contribute to the effort to give an idea to academicians about what kind of renovations have to be done to improve technology adaptation into physical education teaching programs in universities or to remove barriers which prevent physical education teachers to use computers. In addition, this study may inspire the physical education teachers to improve their computer self-efficacy and computer usage in their life.

Conflict of Interests

The author has not declared any conflict of interests.

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