EXAMINATION OF SPORTS SCIENCE FACULTY STUDENTS' INTERNET SELF-EFFICACY

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ABSTRACT

Internet technologies have gained different dimensions with the development of digital communication technologies and have led to the digitization of daily practices of real-life one by one. With the concepts of Metaverse and Virtual reality, the internet world, which gained speed after Web 2.0, has become dynamic in its constantly updated structure. With the increasing prominence of the Internet in all aspects of daily life, Internet self-efficacy, which assesses individuals' self-perceptions about solving problems on the Internet and completing assigned tasks by the developments in technology, is becoming increasingly important. The study aims to determine the internet use self-efficacy levels of the students of the Faculty of Sport Sciences in terms of some variables. The study was conducted on a total of 356 volunteer students of the Faculty of Sports Sciences, 52.5% (n=187) male and 47.5% (n=169) female, studying at Bayburt University in the 2021-2022 academic year. According to the department variable they study, of the participants, 107 (30.1%) are Physical Education and Sports, 146 (41.0%) are Trainer Education, and 103 (28.9%) are Sports Management. "Internet Self-Efficacy Scale," which was adapted into Turkish by Akın et al. (2014), was used as a data collection tool in the study. Internet Self-Efficacy Scale, consisting of 17 items, is a 7-point Likert type measurement tool with five sub-dimensions (creativity, differentiation, organization, communication and research). Descriptive statistics, t-test for independent groups, one-way analysis of variance (Anova) and LSD test to reveal the difference between groups were used as statistical methods in the analysis of the data. As a consequence of the study, it was determined that Internet Use Self-efficacy scale mean, Creativity and communication sub-dimensions differed statistically in favor of males by the gender variable (p<0.05). According to the current developments in the courses, it was observed that the metaverse and virtual reality concepts differ significantly in favor of the students who learn these concepts in the course in the sub-dimensions of research, discrimination, organization, creativity and communication by the variable of the teaching situation in the courses (p<0.05). Statistically significant results were obtained in favor of first-year students in organization, creativity and communication sub-dimensions of internet use self-efficacy levels by the Grade Variable. It was determined that there is no statistical difference in students' internet self-efficacy levels and sub-dimension scores by the department variable and internet usage preferences (p>0.05). According to the device type variable used to access the Internet, it was concluded that the increase in the computer and mobile phones and duration of internet usage contributes positively to the increase in the level of internet usage efficiency (p>0.05). It will be possible for students who perceive how effectively the Internet and social networks can be used educationally during the university period to put themselves one step ahead in their educational processes in their future professional lives. Nevertheless, students, future sports scientists, and teacher candidates who do not update themselves or refuse to update themselves will also be deprived of many things.

Keywords: Internet technologies, self-efficacy, social networks, sports sciences, internet use.

INTRODUCTION

With the developing technology, changes have occurred in many areas of life in the century we live in. With the widespread use of the Internet, the use of internet technologies to carry out all daily routine works of each individual has led to radical changes in the lifestyles of societies. Our life has become easier thanks to high-speed data transmission, online business meetings, next business plans, online education, and technology (Gürbüz & Kahveci, 2021). With the penetration of technology into our lives, the need for Individuals who can think analytically, critically, and innovatively, have high problem-solving skills, design, know how to use technology while accessing information, have high self-efficacy awareness, produce, question, and are technology literate is increasing (Kaya et al., 2020).

The first thing that springs to mind when thinking about technology and education in internet technologies and the utilization of technologies such as computers and mobile devices. The technological advancements witnessed with digitalization have enabled students to become more engaged and to find and learn subjects on their own with the use of computers in education (Keskin & Aktay, 2021). With the increase in the popularity of Internet-based online education platforms, which is a branch of computer-based education during the Covid-19 pandemic of the Internet, which has a wide range of uses, The use of these applications in educational institutions all over the world has increased (Joo et al., 2000).

Teacher candidates trained in physical education teaching and sports sciences need to be equipped with the technologically necessary knowledge and skills (Fisher, 1996; Gronseth et al., 2010). However, it is also supported by the studies carried out in the literature that the students of the Faculty of Sport Sciences do not have sufficient experience in using technology in the education processes in the field of sports sciences. In addition to creating rich learning environments for students, the effectiveness of computers and developing technological tools, mobile Internet, and social media have an important role in responding to students' different learning styles, transferring what has been learned, supporting higher-order thinking, providing the opportunity to compare students with real-life problems and supporting lifelong learning (Coutinho, 2007).

Self-efficacy is a basic concept in social cognitive theory. The notion that an action can be undertaken and continued until it produces effects in a way that is effective on what is going on around it has been defined as an important predictor of human behavior (Bandura, 1989). According to Bandura, in the context of the concept of self-efficacy comes from social learning theory, which includes the late 1800s and is based on a rich historical background, individual factors, the behavior of the individual, and environmental factors affect each other, and with these interactions, the individual's new behavior emerges.

 Self-efficacy, like all other aspects of life, is the foundation for a person's happiness, professional motivation, and personal achievement (Teke & Özkılıç, 2016). The more fully an individual believes in having the necessary skills to accomplish a task, the more likely it is to achieve the desired result after striving. Failure is inevitable if the unmotivated effort is not made in the face of difficulties (Zimmerman, 1995).

In this period when knowledge, power, and productivity skills are more advanced than at any other time in history and artificial intelligence studies gain momentum, we live in a constantly changing age where creativity is fast and fluent, and those who can keep up with developing technologies can survive professionally (Thomas & Li, 2008).

The teacher candidate and trainer of the future are directly proportional to the students of the faculty of sports sciences. Internet technology and high self-efficacy will positively affect the learning quality of students when they transition to the teaching profession (Gürbüztürk et al., 2015). When physical education and sports teacher candidates participate in the education process of students, it may be possible for them to be effective in digital change and transformation processes with their dominance and competence in internet technologies.

The introduction of the concepts of blockchain, artificial intelligence, virtual reality, and metaverse into our lives makes us think about what kind of world the rapid changes in Internet technology will confront teachers, students, the sports industry, and humanity in many fields shortly (Arvas, 2022). It is inevitable to experience many changes in education systems, which in this context directly affect the lives of individuals and societies (Çiftçi, 2021). Any activity that will be done for students to have a good grasp of the concepts of computers, mobile devices, e-learning platforms, metaverse, blockchain, and e-exercise can reduce the anxiety that students will experience in this direction. As students become more familiar with the concepts of using internet technologies, Blockchain, artificial intelligence, virtual reality and metaverse, they will feel competent in the face of developing technological developments, which will contribute to the reduction of their negative attitudes towards computers and educational technologies. Teacher candidates and trainers of the future, who have high self-efficacy in using the developing current internet technologies, will be more effective in their education processes and will also be able to set a positive example for their students.

Purpose and Importance of the Study

With the increasing prominence of the Internet in all aspects of daily life, Internet self-efficacy, which assesses individuals' self-perceptions about solving problems on the Internet and completing assigned tasks, is becoming increasingly important. It is thought that individuals with high self-efficacy levels are more willing and determined in undertake, start, maintain and terminate a job in their professional and social life.

The study aims to determine the internet use self-efficacy levels of the students of the Faculty of Sport Sciences in terms of some variables.

Within this scope, answers to the following questions were sought.

1. What is the Faculty of Sports Sciences students' Internet use self-efficacy level?
2. Does the Faculty of Sports Sciences Students' Internet use self-efficacy differ by gender?
3. Does the Faculty of Sports Sciences Students' Internet use self-efficacy differ by the department they study?

4.   Does the Faculty of Sports Sciences Students' Internet use self-efficacy differ by the grade they study?

5.   Does the Faculty of Sports Sciences Students' Internet use self-efficacy differ by the internet access devices they have?

6.   Does the Faculty of Sports Sciences Students' Internet use self-efficacy differ by daily internet usage times?

METHOD

Research Model

In the study, the survey model, one of the quantitative research methods, was used. A survey model is a study method that provides to reveal a situation as it exists. The individual, subject, object, etc., which is the subject of the research, is tried to be defined in its own conditions and as it is (Karasar, 2013). This study, it was tried to explain the creativity, differentiation, organization, communication, and research levels of the students of the Faculty of Sport Sciences. The main purpose of survey research is to describe the current situation.

Study Group

 The study was conducted on a total of 356 volunteer university students, 52.5% (n=187) male and 47.5% (n=169) female, studying at Bayburt University in the 2021-2022 academic year. According to the department variable they study, of the participants, 107 (30.1%) are Physical Education and Sports, 146 (41.0%) are Trainer Education, and 103 (28.9%) are Sports Management. The data of 11 students who were found not to tick any of the options were excluded. Ethics committee approval was obtained from the Ethics Committee of Şırnak University with the letter dated 19.01.2022 and numbered 2022/3 and E.33144 to carry out the study.

Data Collection Tools

The data of the study were obtained by using the scale method. The scale used consists of two parts, the "Personal Information Form" and the "Internet Self-efficacy Scale" created by the researcher. Data collection tools were applied by the researchers between March-April 2022. In the study, the Cronbach alpha internal consistency coefficient of the scale was found to be .781.

Demographic Information Form: It is a self-information form created by the researcher to obtain demographic information of the participants, such as gender, class, previous course taking, duration of daily internet use, and year of internet use.

Internet Self-efficacy Scale: The "Internet Self-Efficacy Scale," developed by Kim and Glassman (2013) and adapted into Turkish by Akın et al. (2014), was used to evaluate the competencies of individuals in successfully performing various internet activities (Kim & Glassman, 2013). Internet Self-Efficacy Scale, consisting of 17 items, is a measurement tool with five sub-dimensions (creativity, differentiation, organization,

communication, and research). The scale has a rating of 7 ("1" Not at all confident, "7" Very confident). Evaluation of the scale is made according to both sub-dimensions and total scores. High scores on the scale mean that individuals have high levels of internet self-efficacy (Akın et al., 2014).

There is no reverse item on the scale. It was interpreted by the researchers that these results obtained from the validity and reliability studies for the original form of the scale provided the validity and reliability of the measurements obtained from the Internet Self-Efficacy Scale.

Data Analysis

Internet self-efficacy levels of the Faculty of Sport Sciences students were determined by utilizing descriptive statistics, arithmetic mean and standard deviation and normality and homogeneity of variances were checked. The skewness and kurtosis coefficients of the data obtained in the current study were examined, and it was determined whether they showed a normal distribution. As a result of the normality analysis, Skewness and Kurtosis values were examined. It was determined that the Skewness and Kurtosis values ranged from -1.5 to +1.5. According to these values, it was accepted that the data had a normal distribution, and parametric tests were used in the analysis of the data (Tabachnick & Fidell, 2013). SPSS 26 version package program was used in the analysis of the data. Besides, a t-test was used in independent groups to compare participants' internet self-efficacy levels by gender, and one-way analysis of variance ANAVO was used to compare internet use durations according to class and department.

Normality of Data

Normality of Data and Sample Size

In this study, Skewness and Kurtosis values were examined to determine whether the data were normally distributed, and when the table below is examined, the values of Kurtosis and Skewness between -1.5 and +1.5 show that the data has a normal distribution (Tabachnick & Fidell, 2013).

Table 1. Skewness And Kurtosis Values of the Participants' Scores

	N	Mean	Median	Min.	Max.	Skewness	Std.Error	Kurtosis	Std.Error
Internet Self-Efficacy Average	356	3,84	3,81	2,31	5,56	,115	,129	-,609	,258
Research	356	3,83	4,00	1,00	7,00	-,129	,129	,031	,258
Discrimination	356	3,97	4,00	1,25	6,50	-,588	,129	,850	,258
Organization	356	3,83	4,00	1,00	6,33	-,307	,129	-,640	,258
Creativity	356	3,75	3,66	1,67	6,17	,235	,129	,056	,258
Communication	356	3,78	4,00	1,00	7,00	,029	,129	-,276	,258

According to the results of examining the skewness and kurtosis (normal distribution of the data) values of the internet self-efficacy scale and sub-dimension levels in Table 1, it is seen that the data collected within the scope of the research have a normal distribution. Parametric tests were applied because the data had a normal distribution. The skewness coefficient is within the limits of ± 1.5, and it is possible to say that the scores do not

show a significant deviation from the normal distribution (Büyüköztürk et al., 2015). Descriptive statistics for the Internet Self-Efficacy Scale mean Research, Discrimination, Organization, Creativity, and Communication sub-dimensions are also shown in Table 1. According to the results of the descriptive statistics, it was observed that participants' Internet self-efficacy mean 3.84, Research sub-dimension mean was 3.83, Discrimination sub-dimension mean was 3.97, Organization sub-dimension mean was 3.83, creativity sub-dimension mean was 3.75, and Communication sub-dimension means 3.78. Considering the study data, parametric tests (frequency, mean, t-test, one-way analysis of variance (ANOVA)) were conducted to reveal the relationship between the answers given by the participants and the independent variables. In the analysis, arithmetic means, standard deviation, and minimum and maximum values were calculated by utilizing descriptive statistics.

FINDINGS

The study findings were handled by considering various variables. By giving the mean and standard deviations of the internet use self-efficacy levels of the students of the faculty of sports sciences, the gender, department, and class variables of the participants were compared. Table 2 shows the frequencies and percentages of the demographic information of the participants.

Table 2. Participants' Demographic Characteristics

Variable		*f*	%
Gender	Male	187	52,5
	Female	169	47,5
	Total	**356**	**100**
Department	Physical Education and Sports	107	30,1
	Trainer Education	146	41
	Sports Management	103	28,9
	Total	**356**	**100**
Class	1st Grade	93	26,1
	2nd Grade	81	22,8
	3rd Grade	85	23,9
	4th Grade	97	27,2
	Total	**356**	**100**
Is the Concept of Metaverse and Virtual Reality Explained in the Lectures?	Yes	106	29,8
	No	250	70,2
	Toplam	**356**	**100**
Internet Usage Preference	Homework and Education,	67	18,8
	Entertaintment-Game	84	23,6
	Socialization	131	36,8
	Others	74	20,8
	Total	**356**	**100**
Devices You Use for Internet Access	Computer	145	40,7
	Mobile Smartphones,	159	44,7
	Other Devices	52	14,6
	Total	**356**	**100**
Daily internet Usage Time	Less than 2 Hours	54	15,2
	3-4 hours	61	17,1
	5-6 hours	116	32,6
	7+ hours or more	125	35,1
	Total	**356**	**100**

Table 2 shows the demographic information of the students of the faculty of sports sciences participating in the study. A total of 356 volunteer students (n=187, 52.5%) were male and (n=169, 4.75%) were female. According to the department variable they study, of the participants, 107 (30.1%) are Physical Education and Sports, 146 (41.0%) are Trainer Education, and 103 (28.9%) are Sports Management. Of the participants, 93 (26.1%) were 1st Grade, 81 (22.8%) were 2nd Grade, 85 (23.9%) were 3rd Grade, and 97 (27%) were 4th Grade students by gender. Of the participants, 106 (29.8%) stated that the concepts of the metaverse and virtual reality were taught in the lessons within the framework of current technologies, and 250 (70.2%) stated that they were not taught in the lessons. According to the variable of the most frequent use of the Internet, of the participants, 97 (18.8%) stated that they use it for Homework and Education, 84 (23.60%) for game entertainment, 131 (36.8%) for Socialization, 74 (20.8%) for other needs. According to the most frequently used device type variable for accessing the Internet, of the participants, 145 (40.7%) stated that they access the Internet with a computer, 159 (44.7%) with mobile smartphones, 52 (14.6%) with other devices. Considering the variable of daily internet usage time, those who use the internet less than 2 hours a day are (n=54, 15.2%), those who use for 3-4 hours are (n=61, 17.1%), those who use for 5-6 hours are (n=116, 32.6%), and those who use for 7 hours or more are (n=125, 35.1%).

Table 3. Results of Independent Group t-Test Analysis by Gender Variable of Participants With Self-Efficacy Levels, Scale Mean And Sub-Dimensions

Variable	Sub dimensions		N	$\overline{X}$	Ss	t test		
						t	*sd*	*P*
Gender	**Internet Self-efficacy Scale**	Male	187	3,91	,501	2,697	354	,007*
		Female	169	3,74	,670			
	Research	Male	187	3,88	1,042	,808	354	.420
		Female	169	3,78	1,305			
	Discrimination	Male	187	4,02	,779	1,018	354	.309
		Female	169	3,93	,929			
	Organization	Male	187	3,93	1,030	1,959	354	.510
		Female	169	3,71	1,139			
	Creativity	Male	187	3,84	,651	2,520	354	.013*
		Female	169	3,64	,859			
	Communication	Male	187	3,92	1,01	2,537	354	.012*
		Female	169	3,63	1,150			

* p<0,05

Considering Table 3, it is seen that 187 of the participants are male, and 169 of them are female students. No statistically significant difference was found in the sub-dimensions of research, discrimination, and organization, which are among the sub-dimensions of the internet use self-efficacy scale of the students of the Faculty of Sports Science by gender (p>0.05). In internet self-efficacy scale mean (t[2.697]=.007; p<.0.05), creativity (t[2.520]=.013; p<.0.05) and communication (t[2.537]=.012; p<.0.05) sub-dimensions, as for that, it was determined that the participants differed statistically according to the gender variable.

According to this analysis, in the mean scores of the internet self-efficacy scale, it was observed that the communication level scores of males (Male$_n$ = 187 = 3.91 ± .501) were significantly higher than that of females (Female$_n$ = 169 = 3.74 ± .670); in the creativity sub-dimension scores, it was observed that the communication level scores of males (Male$_n$ = 187 = 3.84 ± .651) were significantly higher than that of females (Female$_n$ =169 = 3.69 ± ..859); in communication sub-dimension scores, it was observed that the communication level scores of males (Male$_n$ = 187 = 3.92 ± 1.01) were significantly higher than that of females (Female$_n$ =169 = 3.69 ± 1.150).

Table 4. Results of Independent Group t-Test Analysis by the Variable of Being Aware of Metaverse and Virtual Reality Technologies of Participants With Self-Efficacy Levels, Scale Mean And Sub-Dimensions

Variable	Sub dimensions		N	$\overline{X}$	Ss	t test		
						t	*sd*	*P*
Is the Concept of Metaverse and Virtual Reality Explained in the Lectures?	**Internet Self-efficacy Scale**	Yes	106	3,97	,725	3,013	354	.003*
		No	250	3,77	,516			
	Research	Yes	106	4,07	1,204	2,387	189,903	.015*
		No	250	3,74	1,149			
	Discrimination	Yes	106	4,05	,978	1,152	354	.250
		No	250	3,94	,795			
	Organization	Yes	106	4,01	1,163	2,047	180,683	.040*
		No	250	3,75	1,048			
	Creativity	Yes	106	3,87	,882	2,062	354	.033*
		No	250	3,69	,701			
	Communication	Yes	106	3,95	1,254	1,846	354	.066
		No	250	3,72	1,009			

* p<0,05

Considering Table 4, it is seen that 106 of the participants heard the concepts of the metaverse and virtual reality, which are the current concepts of internet technologies, in the course, while 250 of them did not hear these concepts in the course. In the discrimination and communication sub-dimensions from the participants' internet self-efficacy scale sub-dimensions, no statistically significant difference was found according to the state of the current concepts being taught in the course (p>.0.05). It was observed that the current concepts of internet technologies in internet use self-efficacy scale mean (t[23.97]=.003; p<.0.05), Research (t[2.387]=.015; p<.0.05), Organization (t[2.047]=.040; p<.0.05) and Creativity (t[2.062]=.033; p<.0.05) sub-dimensions differ statistically according to the variable of teaching status in the course.

According to this analysis, in the mean scores of the internet self-efficacy scale, it was observed that those who have taught the current concepts of internet technologies in the course (Yes$_n$ = 106 = 3.97 ± .725) were significantly higher than those who have not learned in the course (No$_n$ = 250 = 3.77 ± .516); in the research sub-dimension scores, it was observed that those who had learned the current concepts of internet technologies in the course (Yes$_n$ = 106 = 4.07 ± 1.204) were significantly higher than those who have not learned in the course (No$_n$ = 250 = 3.74 ± 1.149); in the organization sub-dimension, it was observed that those who have taught the current concepts of internet technologies in the course (Yes$_n$ = 106 = 4.01 ± 1,163) were significantly higher than those who have not learned in the course (No$_n$ = 250 = 3.75 ± 1.048); in the creativity

sub-dimension, it was observed that those who have taught the current concepts of internet technologies in the course (Yes$_n$ = 106 = 3.87 ± 882) were significantly higher than those who have not learned in the course (No$_n$ = 250 = 3.69 ±701).

Table 5. Participants' Internet Self-efficacy levels Anova-Test Analysis results by the Grade Variable

Sun Dimentions	Classs	N	X	Ss	variance Source	KT	sd	KO	F	P	Significant difference
Internet Self-efficacy Scale	1st Grade(a)	93	3,92	,684	Betwen G.	5,268	3	1,756			
	2nd Grade(b)	81	3,98	,586	Within G.	119,564	352	,340			a-c,d; b-c;
	3rd Grade(c)	85	3,73	,540	Total	124,832	355		5,169	.002*	
	4th Grade(d)	97	3,70	,504							
	Total	356	3,83	,592							
Research	1st Grade(a)	93	3,87	1,237	Betwen G.	6,245	3	2,082			
	2nd Grade(b)	81	4,03	1,099	Within G.	483,129	352	1,373			
	3rd Grade(c)	85	3,64	1,120	Total	489,374	355		1,517	.210	-
	4th Grade(d)	97	3,81	1,208							
	Total	356	3,83	1,174							
Discrimination	1st Grade(a)	93	3,96	,900	Betwen G.	4,725	3	1,575			
	2nd Grade(b)	81	4,18	,870	Within G.	254,242	352	,722			
	3rd Grade(c)	85	3,87	,848	Total	258,967	355		2,181	.090	-
	4th Grade(d)	97	3,91	,781							
	Total	356	3,97	,854							
organization	1st Grade(a)	93	4,08	1,051	Betwen G.	14,764	3	4,921			
	2nd Grade(b)	81	3,96	1,142	Within G.	406,456	352	1,155			
	3rd Grade(c)	85	3,67	1,028	Total	421,219	355		4,262	.006*	a-c,d;
	4th Grade(d)	97	3,60	1,077							
	Total	356	3,83	1,089							
creativity	1st Grade(a)	93	3,85	,854	Betwen G.	5,093	3	1,698			
	2nd Grade(b)	81	3,88	,817	Within G.	201,712	352	,573			
	3rd Grade(c)	85	3,69	,703	Total	206,805	355		2,963	.032*	a-d;
	4th Grade(d)	97	3,59	,641							
	Total	356	3,75	,763							
communication	1st Grade(a)	93	3,91	,987	Betwen G.	12,878	3	4,293			
	2nd Grade(b)	81	3,98	1,219	Within G.	410,321	352	1,166			a-d; b-d;
	3rd Grade(c)	85	3,78	1,004	Total	423,199	355		3,683	.012*	
	4th Grade(d)	97	3,50	1,103							
	Total	356	3,78	1,091							

* p<0,05

In Table 5, it was determined that the participants' Internet self-efficacy score means (F=5.169; <P 0.05) differed statistically in sub-dimensions of organization (F=4.262; <p 0.05), creativity (F=2.963; <p 0.05), and communication (F=3.683; <p 0.05) by the Grade variable. As a result of the LSD test to determine the source of the difference, in the internet self-efficacy scale average, it was determined that the level means of the 1st-grade (X =3.92) students had significantly higher internet usage self-efficacy scores than the 3rd grade (X =3.70) and 4th grade (X =3.73) students; and that the level means of the 2nd-grade (X =3.98) students had a significantly higher internet usage self-efficacy score than the 3rd-grade (X =3.73) students. In the organization sub-dimension, it was determined that the mean of the 1st grade (X =4.08) students had significantly higher internet self-efficacy scores than the 3rd grade (X =3.67) and 4th grade (X =3.60) students. It was determined

that the mean of 1st-grade (X =3.85) students had significantly higher internet self-efficacy - creativity sub-dimension scores than 4th-grade (X =3.59) students. It was determined that the mean of 1st-grade (X =3.91) students had significantly higher internet self-efficacy - communication sub-dimension scores than 4th-grade (X =3.50) students. No statistically significant difference was found in the sub-dimensions of research and discrimination (p>0.05).

Table 6. Participants' Internet Self-efficacy levels Anova-Test Analysis results by the Department Variable

Sub Dimentions	Department	N	X	Ss	variance source	KT	sd	KO	F	P	Sinificant difference
Internet Self-efficacy Scale	PES [a]	107	3,92	,569	Betwen G.	1,388	2	,694			
	TE [b]	146	3,78	,583	Within G.	123,443	353	,350	1,985	.139	-
	SM [c]	103	3,79	,623	Total	124,832	355				
	Total	356	3,83	,592							
Research	PES [a]	107	3,98	1,184	Betwen G.	7,750	2	3,875			
	TE [b]	146	3,66	1,090	Within G.	481,624	353	1,364	2,840	,060	-
	SM [c]	103	3,93	1,253	Total	489,374	355				
	Total	356	3,83	1,174							
Discrimination	PES [a]	107	4,02	,876	Betwen G.	,271	2	,136			
	TE [b]	146	3,96	,822	Within G.	258,696	353	,733	,185	,831	-
	SM [c]	103	3,96	,881	Total	258,967	355				
	Total	356	3,97	,854							
Organization	PES [a]	107	3,94	1,093	Betwen G.	2,136	2	1,068			
	TE [b]	146	3,8	1,102	Within G.	419,083	353	1,187	,900	,408	-
	SM [c]	103	3,75	1,066	Total	421,219	355				
	Total	356	3,83	1,089							
Creativity	PES [a]	107	3,83	,791	Betwen G.	1,148	2	,574			
	TE [b]	146	3,71	,726	Within G.	205,657	353	,583	,985	,375	-
	SM [c]	103	3,75	,784	Total	206,805	355				
	Total	356	3,75	,763							
Communication	PES [a]	107	3,97	1,120	Betwen G.	5,870	2	2,935			
	TE [b]	146	3,74	1,075	Within G.	417,329	353	1,182	2,483	,085	-
	SM [c]	103	3,65	1,068	Total	423,199	355				
	Total	356	3,78	1,091							

* p<0,05
PES=Physical Education and Sports, TE=Training Education, SM=Sport Management

Table 6 shows that there is no statistically significant difference between the participants' Internet self-efficacy score averages (F=1,985; P> 0.05) in the Research (F=2.840; p>0.05), discrimination (F=.185; p> 0.05), organization (F=.900; p> 0.05), creativity(F=,985; p> 0.05), and communication (F=2,483; p> 0.05) sub-dimensions by the department variable.

Tablo7. The Results of The Anova Test Analysis of The Participants' Internet Self-Efficacy Levels by the Most Used Technological Device Variable In Internet Access

Sub Dimentions	Variable	N	X	Ss	Source of Variance	KT	sd	KO	F	P	Significant difference
Internet Self-efficacy Scale	Computer[a]	145	3,87	,672	Betwen G.	10,910	2	5,455	16,902	.000*	a-c; b-c;
	Mobile Smartphone [b]	159	3,93	,540	Within G.	113,922	353	,323			
	Other [c]	52	3,41	,230	Total	124,832	355				
	Total	356	3,83	,592							
Research	Computer[a]	145	3,79	1,240	Betwen G.	,473	2	,236	,171	.843	-
	Mobile Smartphone [b]	159	3,87	1,134	Within G.	488,901	353	1,385			
	Other [c]	52	3,85	1,117	Total	489,374	355				
	Total	356	3,83	1,174							
Discrimination	Computer[a]	145	4,04	,846	Betwen G.	6,835	2	3,418	4,785	.009*	a-c; b-c;
	Mobile Smartphone [b]	159	4,02	,816	Within G.	252,132	353	,714			
	Other [c]	52	3,64	,925	Total	258,967	355				
	Total	356	3,97	,854							
Organization	Computer[a]	145	3,88	1,130	Betwen G.	24,246	2	12,123	10,780	.000*	a-c; b-c;
	Mobile Smartphone [b]	159	4,00	1,018	Within G.	396,974	353	1,125			
	Other [c]	52	3,21	,981	Total	421,219	355				
	Total	356	3,75	1,089							
Creativity	Computer[a]	145	3,78	,794	Betwen G.	18,403	2	9,201	17,240	.000*	a-c; b-c;
	Mobile Smartphone [b]	159	3,89	,740	Within G.	188,402	353	,534			
	Other [c]	52	3,21	,458	Total	206,805	355				
	Total	356	3,75	,763							
Communication	Computer[a]	145	3,85	1,169	Betwen G.	9,049	2	4,524	3,856	.022*	a-c; b-c;
	Mobile Smartphone [b]	159	3,85	1,013	Within G.	414,151	353	1,173			
	Other [c]	52	3,40	1,038	Total	423,199	355				
	Total	356	3,78	1,091							

* p<0,05

Considering the Table 7, according to the most used device for accessing the Internet, the participants' Internet Usage self-efficacy mesan scores (F=16,902 <p 0.05) differed statistically in Discrimination (F=4.791 <p 0.05), Organization (F=10.459; <p 0.05), Creativity (F=16.911; <p 0.05), and Communication (F=8.888; <p 0.05) sub-dimensions. As a consequence of the LSD test to determine the source of the difference, it was determined that participants using Computer(X =3.87) and Mobile smartphones (X =3.93) have a higher internet usage self-efficacy level than those who use other internet access devices (X =3,41) in the internet usage self-efficacy scale mean of the Faculty of Sports Sciences students. In the discrimination sub-dimension, it was determined that participants using a computer (X =4.04) and a Mobile Smartphone (X =4.02) has a higher internet usage self-efficacy discrimination level than those who use other internet access device (X =3,64) In the organization sub-dimension, it was determined that participants using Computer(X =3.88) and Mobile Smartphone (X =4.00) has a higher internet use self-efficacy organization level than those who use other internet access device (X =3.21); in the creativity sub-dimension, it was determined that participants using Computer(X =3.78) and Mobile Smartphone (X =3.89) has a higher level of internet use self-efficacy and creativity than those who use other internet access device (X =3.21); in the communication sub-dimension, it was determined that participants using Computer(X =3.85) and Mobile Smartphone (X =3.85) had a higher communication level of

internet usage self-efficacy than those who use other internet access devices (X =3,40) No statistically significant difference was found in the sub-dimensions of research (p>0.05).

Table 8. ANOVA Test Analysis Results according to the Internet Self-Efficacy Levels of the Participants by the Internet Use Preference Variable

Sub dimentions	Variable	N	X	Ss	Source of Variance	KT	sd	KO	F	P	Significant difference
Internet Self-efficacy Scale	Homeworks[a]	67	3,79	,619	Betwen G.	1,072	3	,357			
	Entertaintment-Game[b]	84	3,89	,591	Within G.	123,759	352	,352			
	Socialization[c]	131	3,88	,586	Total	124,832	355		1,017	.385	-
	Others[d]	74	3,74	,581							
	Total	356	3,83	,592							
Research	Homeworks[a]	67	3,62	1,112	Betwen G.	6,358	3	2,119			
	Entertaintment-Game[b]	84	4,03	1,097	Within G.	483,015	352	1,372			
	Socialization[c]	131	3,84	1,215	Total	489,374	355		1,545	.203	-
	Others[d]	74	3,80	1,224							
	Total	356	3,83	1,174							
Discrimination	Homeworks[a]	67	4,04	,745	Betwen G.	1,177	3	,392			
	Entertaintment-Game[b]	84	3,93	,921	Within G.	257,790	352	,732			
	Socialization[c]	131	4,02	,897	Total	258,967	355		,536	.658	-
	Others[d]	74	3,89	,792							
	Total	356	3,97	,854							
Organization	Homeworks[a]	67	3,64	1,217	Betwen G.	4,481	3	1,494			
	Entertaintment-Game[b]	84	3,92	,985	Within G.	416,739	352	1,184			
	Socialization[c]	131	3,91	1,088	Total	421,219	355		1,262	.287	-
	Others[d]	74	3,74	1,070							
	Total	356	3,83	1,089							
Creativity	Homeworks[a]	67	3,79	,859	Betwen G.	1,064	3	,355			
	Entertaintment-Game[b]	84	3,71	,738	Within G.	205,741	352	,584			
	Socialization[c]	131	3,80	,761	Total	206,805	355		,607	.611	-
	Others[d]	74	3,67	,707							
	Total	356	3,75	,763							
Communication	Homeworks[a]	67	3,81	1,058	Betwen G.	3,451	3	1,150			
	Entertaintment-Game[b]	84	3,66	1,038	Within G.	419,749	352	1,192			
	Socialization[c]	131	3,90	1,101	Total	423,199	355		,965	.410	-
	Others[d]	74	3,71	1,161							
	Total	356	3,78	1,091							

* p<0,05

Table 8 shows that there is no statistically significant difference between the participants' Internet self-efficacy score averages (F=1,017; P> 0.05) in the Research (F=1.545; p>0.05), discrimination (F=.536; p> 0.05), organization (F=.1.262; p> 0.05), creativity(F=,607; p> 0.05), and communication (F=965; p> 0.05) sub-dimensions by Internet Self-Efficacy Levels of Participants. In the study conducted by Zengin and Alver (2017), it was concluded that those who use the Internet as a means of communication and entertainment are more effective in communication skills than those who use the Internet for scientific and learning purposes.

Table 9. ANOVA Test Analysis Results According to the Internet Self-Efficacy Levels of the Participants by the Time Spent on the Internet Variable

Sub dimentions	Variable	N	X	Ss	Variance source	KT	sd	KO	F	P	Significant difference
Internet Self-efficacy Scale	Less than 2 Hours[a]	54	3,27	,494	Betwen G.	31,942	3	10,647			
	3-4 hours[b]	61	3,53	,497	Within G.	92,890	352	,264			b-a; c-a,b,; d-a,b
	5-6 hours[c]	116	4,00	,480	Total	124,832	355		40,347	,000*	
	7+ hours or more[d]	125	4,06	,557							
	Less than 2 Hours[a]	356	3,83	,592							

* p<0,05

Considering Table 9, according to the variable of time spent on the Internet for accessing the Internet, the participants' Internet Use self-efficacy mean scores (F=40,347 <p 0.05) differed statistically. In consequence of the LSD test to determine the source of the difference, in the Internet use self-efficacy scale mean of the students of the Faculty of Sports Sciences, it was determined that the students who spent Less Than 2 Hours (X =3.27), 3-4 hours (X =3.53), 5-6 hours (X =4.00), 7+ hours and more (X =4.06) on the Internet have higher internet usage self-efficacy levels as their usage time increases. It was determined that the students who spend 7+ hours or more on the Internet have the highest internet usage self-efficacy levels, and the students who use the Internet for 2 hours or less have the lowest internet usage self-efficacy levels.

CONCLUSION and DISCUSSION

According to the results obtained from the internet use self-efficacy scale applied to the students of the Faculty of Sport Sciences, it was determined that the arithmetic averages were (x̄ =3.83) in the research dimension, (x̄ =3.97) in the differentiation dimension, (x̄ =3.83) in the organization dimension, (x̄ =3.75) in the creativity dimension and (x̄ =3.78) in the communication dimension. In addition, the general average of the internet usage self-efficacy scores of the students of the Faculty of Sports Sciences was found as (x̄ =3.84). In this research, which examines the self-efficacy perceptions of the new social order, which is defined as the information society, regarding the use of digital communication technologies, computers, and the Internet, the general average and sub-dimension scores were found to be moderate in general.

As a consequence of the study, it is seen that the general average the internet usage self-efficacy perceptions of students of the Faculty of Sports Sciences, who are the candidates for the future teacher, trainers and managers, differs significantly in favor of men in the creativity and communication sub-dimensions, and there is no difference in the research, discrimination and organization sub-dimensions. (Table 3.) The results of the study are similar to the results of the study conducted in the field article to determine the self-efficacy of classroom teachers for educational internet use (Elkatmış, 2014; Keskin & Aktay, 2021) . (Table 3)

In consequence of the study, according to the variable of the metaverse concept and virtual reality concepts being taught in the courses, it was determined that the general mean (x̄ =3.97) of the internet usage self-

efficacy levels of the students who have learned these subjects in the courses differs significantly in favor of those who have learned the current concepts in their courses in the Research($\bar{x}$ =4.07), Organization($\bar{x}$ =4.01), Creativity($\bar{x}$ =3.87) and Communication($\bar{x}$ =3.95) sub-dimensions (Table 4). The teaching of these concepts, which are the newest link of current developments in technology in the courses, contributes positively to the students' research, organization, creativity, and communication levels. The subject of transferring the course contents that are in line with the current information by the faculty members to the students will increase the sense of curiosity in students, and the effective use of technologies in research, organization, creativity, and communication will encourage both faculty and students.

Within the scope of the study, when the internet self-efficacy levels of the students according to the class variable were examined, in the general mean of the scale, it was seen that the internet usage self-efficacy levels of the 1st-grade participants were significantly higher than the 3rd and 4th-grade students, and the 2nd-grade students' internet usage self-efficacy levels were significantly higher than the 3rd-grade students. In the organization sub-dimension, 1st-grade students were found to be significantly higher in the sub-dimensions of internet use self-efficacy compared to 3rd and 4th-grade students; in the creativity sub-dimension, 1st-grade students were found to be significantly higher than 3rd-grade students in the sub-dimensions of internet use self-efficacy; in the communication sub-dimension, 1st-grade students and 2nd-year students were found to be significantly higher in the sub-dimensions of internet use self-efficacy compared to 3rd-grade students. There are studies in the literature that directly and indirectly parallel the findings of our study. Since the validity period of the knowledge and skills acquired at school changes with each new development, updating it is inevitable. It is thought that many nations, where learning systems will be digitalized in the future, will tend towards a schoolless society (Özkul, 2008). In this direction, it is thought that traditional understandings that do not update themselves and refuse to update themselves on internet technologies to be given at every grade level will be ineffective. (Table 5)

Considering the Department Variable in the study, it is seen that there is no difference between the departments in the scale general averages of the internet self-efficacy levels of the students studying in Physical Education and Sports, Coaching Education, and Sports Management departments and the sub-dimensions of the scale Research, Discrimination, Organization, Creativity, and Communication. It is also seen that there are different studies in the literature stating that students studying at different undergraduate levels show a significant difference according to the department (Gömleksiz & Erten, 2013; Teke & Özkılıç, 2016; Tuncer & Tanaş, 2011). This may be because all students in the faculty of sports sciences receive the same number of information technology course hours in their respective specialties. Consequently, there is a tremendous need for students in the faculty of sports sciences to conduct research in sports informatics and basic internet technologies. (Table 6)

Considering the most used technological device variable for internet access in the study, Internet self-efficacy levels were found to be higher in those who used Mobile Phones (X =3.93) in general average scores,

computers (X =4.04) in the Discrimination sub-dimension, Mobile Phones (X =4.00) in the organization sub-dimension, Mobile Phone (X =3.89) in the creativity sub-dimension, and Mobile Phones (X =3.85), Computer (X =3.85) in the communication sub-dimension. There are also studies showing that the high frequency of computer use by students who own a computer has a positive effect on their internet use self-efficacy level (Akgün et al., 2014; Çelik & Bindak, 2005). Considering the other studies in the literature, in the periods when smartphone usage was not common, computer use was more effective (Sherer, 1997), and in recent years, the effect of mobile devices on the increase in internet usage proficiency with the increase in the use of smartphones in society.

Considering the internet usage preferences in the study, it was determined that the use of homework, socialization, games, and entertainment were highly preferred. Was stated by many researchers that after the effective use of information technologies, students make many positive contributions to the teaching process (Akın & Çeçen, 2015).

Considering the study results in the literature, as the time spent on the Internet increases, the level of Internet self-efficacy perception also increases. A high degree of internet usage indicates that a steady favourable trend toward computer and internet usage has begun to emerge in our lives. It is thought that the knowledge and skills gained at school will increase the productivity of the students of the Faculty of Sports Sciences both in their professional lives and, in their business, and school lives as teacher candidates, trainers and sports specialists.

In the study, when the daily internet usage times of the students were examined, it was determined that the internet usage self-efficacy levels increased as the time spent on the Internet increased. As the internet usage time of many people who spend most of their time on the Internet increases only because of the attraction of the Internet, their productivity in their work and school life is adversely affected (Young, 2004). It is thought that the efficiency to be obtained will be even higher by increasing the quality of the time spent on the Internet. It will be possible for students who perceive how effectively the Internet and social networks can be used educationally during the university period to put themselves one step ahead in their educational processes in their future professional lives. Nevertheless, students, future sports scientists, and teacher candidates who do not update themselves or refuse to update themselves will also be deprived of many things.

This study has some limitations. The study group consisted of Bayburt University Faculty of Sports Science students, and this study can be repeated with different student populations and different university students studying in different departments. In our study, a situation determination was made.

RECOMMENDATIONS

Consequently, internet technologies and developing systems should be designed in a way that will positively affect students' internet self-efficacy. In the study, although it is concluded that the 1st-grade students have a

high perception of computer and internet use self-efficacy, the awareness of the 2nd, 3rd, and 4th-graders about Sports Informatics, new concepts of Internet technologies, Virtual Reality, and Metaverse Concepts should be increased. The lack of physical education and sports teacher candidates in this field should be eliminated.

Sports Sciences Faculty Students who are Physical Education and Sports Teacher Candidates should be encouraged, especially by experienced academics, in the effective use of information technologies in the field of physical education and sports. In the classroom and out-of-class education activities of the instructors, they should use internet technologies at the highest level in practice courses and undertake a guiding task for sports science students in this direction.

In the studies to be conducted, different sample groups can be examined. By examining the artificial intelligence, virtual reality, and metaverse awareness of academics about internet technologies, it is suggested that the effect on students' efficiency levels should be done with multidimensional different independent variables.

ETHICAL TEXT

In the research process in this article, journal writing rules, publication principles, research and publication ethics rules, and journal ethics rules were followed. Responsibility for any violations that may arise from the article belongs to the author. Data were collected voluntarily. Ethics committee approval was obtained from the Ethics Committee of Şırnak University with the letter dated 19.01.2022 and numbered 2022/3 and E.33144 to carry out the study.

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REFERENCES

Akgün, İ. H., Akgün, M., & Şimşek, N. (2014). Sosyal bilgiler öğretmen adaylarının eğitimde bilgisayar kullanmaya ilişkin öz yeterlilik algılarının incelenmesi. *Kastamonu Eğitim Dergisi*, *23*(2), 711-722. https://dergipark.org.tr/en/pub/kefdergi/issue/22599/241414

Akın, A., Kaya, M., Akın, Ü., Ahranç, Ü., & Uğur, E. (2014). İnternet öz-yeterliği ölçeği türkçe formunun geçerlik ve güvenirliği. *Bartın University Journal of Faculty of Education*, *3*(2), 404-415. https://dergipark.org.tr/en/pub/buefad/issue/3815/51213

Akın, E., & Çeçen, M. A. (2015). Çoklu ortama dayalı Türkçe öğretimine ve çoklu ortam araçlarına yönelik öğrenci görüşleri. T*urkish Studies - International Periodical for the Languages, Literature and History of*

*Turkish or Turkic Volum*e 10/7 Spring 2015, p. 51-72, ISSN: 1308-2140, www.turkishstudies.net, DOI Number: http://dx.doi.org/10.7827/TurkishStudies.8229

Arvas, İ. S. (2022). Gutenberg Galaksisinden Meta Evrenine: Üçüncü Kuşak İnternet, Web 3.0. *AJIT-e: Bilişim Teknolojileri Online Dergis*, *13*(48), 53-70. https://doi.org/10.5824/ajite.2022.01.003.x

Bandura, A. (1989). Human agency in social cognitive theory. *American psychologist*, *44*(9), 1175. https://doi.org/10.1037/0003-066X.44.9.1175

Coutinho, C. (2007). Infusing technology in pre service teacher education programs in Portugal: an experience with weblogs. Society for Information Technology & Teacher Education International Conference,

Çelik, H. C., & Bindak, R. (2005). İlköğretim okullarında görev yapan öğretmenlerin bilgisayara yönelik tutumlarının çeşitli değişkenlere göre incelenmesi. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, *6*(10), 27-38. https://app.trdizin.gov.tr/publication/paper/detail/TnpRek56UTA

Çiftçi, G. T. (2021). Dijital iletişim teknolojileri bağlamında açık ve uzaktan öğrenmenin kapsamı. *Açıköğretim Uygulamaları ve Araştırmaları Dergisi*, *7*(1), 1-23. https://dergipark.org.tr/en/pub/auad/issue/60075/792966

Elkatmış, M. (2014). Sınıf Öğretmenlerinin Eğitsel Amaçlı İnternet Kullanım Öz Yeterlikleri. *Milli Eğitim Dergisi*, *44*, 193-204. https://dergipark.org.tr/en/pub/milliegitim/issue/36161/406489

Fisher, M. (1996). Integrating information technology: Competency recommendations by teachers for teacher training. *Journal of Information Technology for Teacher Education*, *5*(3), 233-238. https://doi.org/10.1080/0962029960050305

Gömleksiz, M. N., & Erten, P. (2013). Öğretmen Adaylarının Genel İnternet Özyeterlik Algıları Fırat Üniversitesi Örneği. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi*, *14*(1), 119-140.

Gronseth, S., Brush, T., Ottenbreit-Leftwich, A., Strycker, J., Abaci, S., Easterling, W., . . . Leusen, P. v. (2010). Equipping the next generation of teachers: Technology preparation and practice. *Journal of Digital Learning in Teacher Education*, *27*(1), 30-36. https://doi.org/10.1080/21532974.2010.10784654

Gürbüz, F., & Kahveci, I. (2021). Fen Bilgisi Eğitimi Yüksek Lisans Öğrencilerinin STEM Eğitimi Hakkındaki Görüşlerinin Belirlenmesi. *Eurasian Journal of Teacher Education*, *2*(3), 228-244. https://dergipark.org.tr/en/download/article-file/2100073

Gürbüztürk, O., Demir, O., Karadağ, M., & Demir, M. (2015). Sınıf Öğretmenlerinin Bilgisayar Ve İnternet Kullanımına İlişkin Öz-Yeterlik Algılarının Bazı Değişkenler Açısından İncelenmesi. *Electronic Turkish Studies*, *10*(11). https://doi.org/10.7827/TurkishStudies.8465

Joo, Y.-J., Bong, M., & Choi, H.-J. (2000). Self-efficacy for self-regulated learning, academic self-efficacy, and Internet self-efficacy in Web-based instruction. *Educational technology research development*, *48*(2), 5-17. https://link.springer.com/article/10.1007/bf02313398

Kaya, G., Ersin, Ş., & Uz, R. Ö. (2020). Fen Bilimleri Öğretmenlerinin STEM Eğitimi Hakkındaki Görüşlerinin Belirlenmesi (Bursa İli Örneği). *Uluslararası İnsan ve Sanat Araştırmaları Dergisi*, *5*(6), 100-113. https://dergipark.org.tr/en/pub/ijhar/issue/58060/830364

Karasar, N. (2013). Bilimsel araştırma yöntemi. Ankara: Nobel Yayınevi.

Keskin, T., & Aktay, S. (2021). Sınıf Öğretmenlerinin Eğitsel İnternet Kullanım Öz-Yeterlikleri ve Öğretmenlik Öz-Yeterliklerinin İncelenmesi. *Muğla Sıtkı Koçman Üniversitesi Eğitim Fakültesi Dergisi*, *8*(2), 579-596. https://doi.org/10.21666/muefd.846281

Kim, Y., & Glassman, M. (2013). Beyond search and communication: Development and validation of the Internet Self-efficacy Scale (ISS). *Computers in Human Behavior*, *29*(4), 1421-1429. https://doi.org/10.1016/j.chb.2013.01.018

Özkul, A. (2008). Dünyada ve Türkiye'de uzaktan eğitimin bugünkü durumu. *Uluslararası Uzaktan Eğitim Konferansı*, 17-18.

Sherer, K. (1997). College life on-line: Healthy and unhealthy Internet use. *Journal of College Student Development*.

Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics: International edition.

Teke, A., & Özkılıç, R. (2016). *Eğitim amaçlı öz-yeterlik ve internet öz-yeterliği* (E. Yılmaz, M. Çalışkan, & S. A. Sulak, Eds.). Çizgi Kitabevi.

Thomas, D. A., & Li, Q. (2008). From Web 2.0 to Teacher 2.0. *Computers in the Schools*, *25*(3-4), 199-210. https://doi.org/10.1080/07380560802371037

Tuncer, M., & Tanaş, R. (2011). Eğitim Fakültesi Öğrencilerinin Bilgisayar Öz-Yeterlik Algılarının Değerlendirilmesi. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*(6), 222-232.

Young, K. S. (2004). Internet addiction: A new clinical phenomenon and its consequences. *American behavioral scientist*, *48*(4), 402-415. https://doi.org/10.1177%2F0002764204270278

Zengin, Ö. & Alver, B. (2017). Üniversite Öğrencilerinin Medya Araçlarını Kullanma Durumlarına Göre Güvengenlik Özelliklerinin İncelenmesi, International Journal Of Eurasian Education And Culture, Issue: 2, pp. (93-114). https://dergipark.org.tr/en/download/article-file/398447

Zimmerman, B. J. (1995). Self-efficacy and educational development. *Self-efficacy in changing societies*, *1*(1), 202-231.