A Study of the Academic Self-Efficacy of Physical Education and Sports Academy Students from the Perspective of Various Variables[*]

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Abstract

The aim of this study is to determine the relation of the level of academic self-efficacy to various variables of the studentin physical education and sport department. 330 students who are studying at the departments of physical education and sports teaching, spors management and coaching in Ahi Evran University and Aksaray University, College of Physical Education and Sports participated to the research. Personal information tool and academic self-efficacy scale consisting 30 items were used as data collection tool in the research. Distribution, frequency, t test and anova test were used in comparison of the related data. As a result of statistical analysis, academic self-efficacy levels significant differences were detected in terms of gender variable on social status and technical skills and in terms of sports type and nationality player variable on social status, technical skills and cognitive applications.

Keywords: Academic self-sufficiency, students, physical education and sports school

Beden Eğitimi ve Spor Yüksekokulu Öğrencilerinin Akademik Öz-Yeterliklerinin Çeşitli Değişkenler Açisindan İncelenmesi

Öz

Bu araştırmanın amacı beden eğitimi ve spor bölümlerinde öğrenim gören öğrencilerin akademik öz-yeterliklerinin belirlenmesidir. Araştırmaya Ahi Evran Üniversitesi Beden Eğitimi ve Spor Yüksekokulu ve Aksaray Üniversitesi Spor Bilimleri Fakültesi beden eğitimi ve spor öğretmenliği, spor yöneticiliği ve antrenörlük eğitimi bölümlerinde öğrenim gören 330 öğrenci katılmıştır. Araştırmada veri toplama aracı olarak kişisel bilgi formu ve 3 boyut ve toplam 33 maddeden oluşan akademik öz-yeterlik ölçeği kullanılmıştır. İlgili verilerin karşılaştırılmasında dağılım, frekans, t testi ve anova testi yapılmıştır. İstatistiksel analizler sonucuna katılımcıların akademik öz-yeterlik durumlarının cinsiyet değişkeni açısından sosyal statü ve teknik beceriler boyutunda, yapılan spor türü ve millilik değişkeni açısından ise sosyal statü, bilişsel uygulamalar ve teknik beceriler boyutu olmak üzere tüm boyutlarda farklılaştığı tespit edilmiştir.

Anahtar Kelimeler: Akademik özyeterlilik, öğrenci, beden eğitimi ve spor yüksekokulu.

INTRODUCTION

The concept of self-efficacy is one of the fundamental issues we often encounter in Albert Bandura's social learning theory. Bandura defines self-efficacy as the belief of an individual to overcome an event successfully (Bandura, 1977). Eccles and Wigfield (2002) express self-efficacy as the confidence of an individual to solve a problem or complete a task successfully based on the confidence of the individual to coordinate and apply his knowledge and skills. Another definition expresses self-efficacy as 'the faith of individuals on the ability to control challenging tasks and their own applications' (Luszczynska, Dona and Schwarzer, 2005)

On the other hand there are perceptions of self-efficacy comprised of the behavior that should be displayed by individuals in their daily lives about numerous subjects. Within this context, the perception of academic self-efficacy can be accepted as a special type of self-efficacy (Ekici, 2012). Academic self-efficacy is defined as the faith of a student in his skills to complete an academic task successfully (Zimmerman, 1995,). According to Bandura who attributes academic self-efficacy on the theory of self-efficacy, academic self-efficacy is the belief of an individual to be successful in a subject area (Bandura, 1997). Currently, it is a known fact that there are major differences between having knowledge and skills at various levels and putting the knowledge and skills into practice for a given purpose. Perceptions that individuals can use their knowledge and skills in the direction of their aims are explained as self-efficacy beliefs. Positive self-efficacy beliefs increase motivation, enable individuals to cope with new and difficult tasks and makes them willing to make an effort, negative self-efficacy beliefs cause a person not to act with his or her own initiative or to quit a task before it is completed (Yılmaz, Gürçay and Ekici, 2007).

When studies on the subject are examined, it is stated that positive self-efficacy belief leads to increased motivation and contributes to coping with new and difficult tasks while negative self-efficacy beliefs results in an individual acting without his own initiative or without finalizing the executed work (Pajares,1996; Yılmaz et al., 2007).

There are many benefits to developing students' academic self-efficacy. There is a strong association between academic self-efficacy and academic achievement. In addition, students with positive academic self-efficacy tend to be less susceptible to risky behavior and cope better with difficulties (Millburg, 2009). A study was carried out in the United States on 96 female hockey players in terms of the statistical winning and losing percentages of teams. It has been concluded that self-efficacy is strongly correlated with the winning percentage of the team and that a strong self-sufficiency is a major factor in achieving team goals (Lee, 1988).

With a view on this information, the objective of our study was to examine the academic self-efficacy of students in physical education and sports departments according to various variables.

METHOD

Population and Sample

The population of this study consisted of male and female students studying in Ahi Evran University School of Physical Education and Sports and Aksaray University Faculty of Sports Sciences Physical Education and Sports Teacher Training, Coaching Education and Sports Management during the 2017-2018 academic period. The research population consisted of approximately 1300 students and the sample was comprised of 330 students.

Data Collection Tool

Academic self-efficacy scale consisting of a personal information form and 33 articles and 3 sub-dimensions was used as a data collection tool in the study. The original form of the scale was developed by Owen & Froman (1988) and adapted into Turkish by Ekici (2012). The social status dimension consisted of 10 articles, the cognitive practice dimension was comprised of 19 articles and the technical skills dimension included 4 articles. The questionnaire was a Likert type survey with a 5-point scale and ratings of

Very High (5 points), High (4 points), Partly High (3 points), Low (2 points) and Fairly Low (1 point). The internal consistency coefficient was calculated as 0,85 and the validity as 0,81. The internal consistency in the Turkish version was determined as 0.86 (Ekici, 2012). In this study the internal consistency coefficient was 0,97.

Data Collection

A questionnaire form used in the study was applied to male and female students in Ahi Evran University Physical Education and Sports College and Aksaray University Faculty of Sports Sciences Physical Education and Sports Teacher Training, Coaching Education and Sports Management Departments in 2017-2018 education period. Before starting the study, the students were informed about the objective of the study and given detailed information about filling the data collection tool. The collected data collection tool was checked by the researcher and the deliveries that were incomplete or erroneously filled were deleted from the study. Subsequently valid and acceptable data collection forms (330) applied to the athletes were transferred onto an electronic setup and coded for assessment. Analysis of the data collected in the study was carried out with the SPSS 20.0 statistical package program. In the evaluation of the data, distribution, frequency, t test and anova test were carried out. In the tests for the analysis of the data; the principle of equality of variances from the parametric tests has been taken as a basis and if the variances were not equal, no significant difference was searched between the groups even if the value of "p" was smaller than the significance level. The level of significance in the analyses was determined as $\alpha = 0.05$.

FINDINGS

Table 1. Distribution of Academic Self-Sufficiency Points for All Participants

Scale	N	Mean	Ss
AÖY Total	330	3,11	.78

The total scores of the participants in the study from the Academic Self-Efficacy Scale (AÖY), have an arithmetic average of 3,11 and a standard deviation of .78.

Table 2. T-Test Results for Comparing Academic Self-Efficacy According to the Gender of Participants

Sub dimension	Gender	n	x	ss	t	p
Social Status	Male	226	3,1681	1,00592	2,273	,024
	Female	104	2,9010	,96114		
Cognitive Applications	Male	226	3,0743	,98093	1,492	,137
	Female	104	2,8993	1,00992		
Technical Skills	Male	226	3,1637	1,02728	2,318	0,21
	Female	104	2,8846	,99142		

*$p<0.05$

A comparison of the sub-dimensions of the academic self-efficacy of the participants according to gender revealed significant differences in social status (p=,024) cognitive applications (p=,137) and technical skills (p=,021). A review of the average scores of the participants revealed that the average scores of male participants were higher than

the average scores of female participants in all dimensions including social status, cognitive applications and technical skills. (social status: Male average= 3,1681, Female

Average= 2,9010- Cognitive Applications: Male: Average= 3,0743, Female Average= 2,8993- Technical Skills: Male: Average= 3,1637, Female Average= 2,8846)

Table 3. Anova Results from the Comparison of the Academic Self-efficacy of the Participants according to the type of Sport

Sub-dimension	Type of Sport	N	X	SS	SD	F	P	Significant Difference
Social status	Individual	120	2,9033	1,16026	2/327	6,360	,001/,033	1-3, 2-3
	Team	138	3,0638	,79826				
	Both	72	3,4236	,97958				
	Total	330	3,0839	,99833				
Cognitive applications	Individual	120	2,8430	1,14103	2/327	6,032	,002/,041	1-3, 2-3
	Team	138	3,0011	,79208				
	Both	72	3,3472	1,00234				
	Total	330	3,0191	,99197				
Technical skills	Individual	120	2,9479	1,24933	2/327	4,870	,008/,027	1-3,2-3
	Team	138	3,0181	,77285				
	Both	72	3,3993	,96930				
	Total	330	3,0758	1,02289				

Note: 1.Individual sports 2. Team sports 3. Both types of sports

A comparison of the academic self-efficacy of the participants in the study according to type of sport indicated that significant differences in the sub-dimensions of social status (p=,002) cognitive applications (p=,003 and technical skills (p=,008).

According to the analyses carried there was a significant difference in the social status sub-dimension between those who practiced individual sports and those who practiced both types of sports (p=,001) and those who practiced team sports and those practicing both types of sports (p=,033).

In the cognitive application sub-dimensions, significant difference was encountered between those practicing individual sports and those practicing both types of sports (p=,002) and between those practicing team sports and those practicing both types of sports (p=,041).

In the technical skills sub-dimension significant differences were noted again in those who practiced individual sports and those practicing both types of sports (p=,008)

and those practicing team sports and those practicing both types of sports (p=,027).

An assessment of the average scores of the participants revealed that those practicing both types of sports had the highest score in all sub-dimensions while those practicing individual sports had the lowest average. The averages for those practicing individual sports in the social status sub-dimensions is (X =2,9033), those practicing team sports is (X =3,0638) and the average scores of those practicing both types of sports is (X =3,4236).

The averages for those practicing individual sports in the cognitive applications sub-dimension is (X =2,8430), those practicing team sports is (X =3,0011) and the average scores of those practicing both types of sports is (X=3,3472).

The averages for those practicing individual sports in the technical skills sub-dimension is (X =2,9479), those practicing team sports is (X =3,0181) and the average scores of those practicing both types of sports is (X=3,3993).

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Table 4. T-Test Results for the Comparison of Participants' Academic Self-Efficacy according to National Team Membership Status

Sub-dimension	National team membership	N	x	ss	t	p
Social status	Yes	47	3,4043	1,14055	2,859	,005
	No	283	2,9399	1,01195		
Cognitive Applications	Yes	47	3,5521	1,17005	3,361	,000
	No	283	2,9515	1,01901		
Technical Skills	Yes	47	3,6170	1,15844	4,633	,000
	No	283	2,7986	1,15548		

A comparison of the academic self-efficacy of the participants in the study depending on whether they were members of the national team indicated significant differences in the sub-dimensions of social status (p=,005) cognitive applications (p=,000 and technical skills (p=,000).

When the average scores of the participants were compared it was noted that the average scores of national team athletes were higher than those who were not national team athletes in all sub-dimensions, namely social status, cognitive applications and technical skills.

While the average scores for the national team athletes in terms of the sub-dimension social status was (X =3,4043), the scores of those who were not national team athletes was (X =2,9399). The average scores for the national team athletes in terms of the cognitive applications sub-dimension was (X =3,5521) while the scores of those who were not national team athletes was (X =2,9515). The average scores for the national team athletes in terms of the technical skills sub-dimension was (X =3,6170) while the scores of those who were not national team athletes was (X =2,7986).

DISCUSSION AND RESULT

In this part of the study the determinations of the academic self-efficacies of the participants are interpreted and discussed in terms of the results of these parameters and their association with the variables of gender, type of practiced sport and national team membership.

While no difference was observed in the dimension of cognitive practices in the comparison of the academic self-efficacy sub-dimensions according to the gender of the study participants, a significant difference was detected in social status and technical skills sub-dimensions. A study of relevant literature reveals different findings. In a study carried out by Schunk and Pajare (2002) they asserted that the academic score averages of male participants was higher than that of female participants. A study carried out by Vurucu (2010) and Durdukoca (2010) supported our findings by claiming that the score averages of male participants were higher than that of female participants.

In a study carried out by Varol (2007) it was reported that no difference had been found between physical education and sports teaching male and female students in terms of gender. Özsüer et al.(2011) had determined that gender did not influence the conviction levels of the students' academic self-efficacy in their study. Likewise, in a study by Uzel (2009), Özerkan (2007), Yıldırım (2012), Durdukoca (2010) Üstüner et al. (2009) no difference had been determined in terms of academic efficacy scores between the male and female participants.

Unlike our study, Koçer (2014) concluded that the academic self-efficacy of female secondary school students' was higher than the academic self-efficacy of male students in

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his study. Yelken (2008) concluded that the self-efficacy status of female participants was higher than that of male participants. The results of these studies do not correspond to our findings.

The fact that our study results indicate that the academic averages of male participants compared to female participants could be attributes to the more rapid adaptation of males to physical education and the field of sports. The current socio-cultural variables and initiatives for steering females to sports as a part of their lives in our community could contribute to overcoming such types of differences. A comparison of the academic self-efficacy of the participants in the study according to practiced type of sport revealed that there were significant different in the sub-dimensions of social status, cognitive applications and technical skills. Biricik (2015) has reported similar findings regarding the practiced type of sport paralleling our study. The researcher indicates that students involved in both sports branches have a better academic self-efficacy level than those practicing individual sports. In terms of academic self-efficacy levels the researcher asserts that in parallel with our study participants who practiced both types of sports achieved the highest scores in all sub-dimensions including social status, cognitive applications and technical skills.

Koparan et al.(2010) concluded that physical education teachers' self-efficacy levels did not differ between those who practiced individual sports and those who practiced team sports Ünlü (2008) reported that there were no significant differences in the self-efficacy of teaching between physical education teachers who were involved in team and individual sports. Many studies carried out in the field of sports indicate that team sports develop strong social relations, friendships and generate a team spirit. Therefore, the fact that the academic efficacy scores of the participants who practice team sports together with the other two sports corresponds to field literature to a major degree. It is evident that activities with this kind of team spirit have made people feel a sense of belonging. However, the ability to collaborate for the same goal and to act

together for the same target can be manifested as an opportunity in individual development. Provided we assess the findings of the study in this respect may be a reason for us to analyze the high scores of the participants who practice team sports and both types of sports better.

Significant differences were determined in the social status, cognitive applications and technical skills sub-dimensions in the comparison of academic self-efficacies according to national team memberships of the participants participating in the study. In parallel with our study, the study carried out Biricik (2015) found significant differences in the social status sub-dimension of academic self-efficacy levels according to the national team membership status of the participants who participated in his study. The author indicates that in terms of the social status sub-dimension, students who are national team athletes have a higher academic self-efficacy than those who are not.

Bozkurt (2013) reported that no significant difference had been encountered among the teaching self-efficacies of physical education teacher candidates according to their status as national team athletes. This finding does not coincide with our study results. The results of the study qualify as a contribution to various findings in general literature. However, expanding the study groups and separating the participants into various socio-cultural groups seems to be important for shedding light on subsequent studies. A review of literature indicates that academic self-efficacy has a positive contribution to the academic and overall success of individuals. In many areas of education in general, individuals with strong self-efficacy also to be ensured in the sporting area will be better equipped to deal more effectively with the challenges in the area. When all this is taken into account the importance of raising individuals with high self-efficacy becomes more evident. Professionals (teachers, trainers, administrators, etc.) in the field of education in particular should always have a high level of awareness in terms of self-efficacy and contribute to the education process accordingly.

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