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Self-Leadership and Leisure Management of Sports Science Students in the Online Education Process

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Abstract

The aim of this research is to examine the self-leadership and leisure management of the students of the Faculty of Sports Sciences in the online education process. The sample group of the research is formed from the students studying in different departments of Afyon Kocatepe University, Faculty of Sports Sciences, in the 2020-2021 academic year, a total of 195 students, including 97 female and 98 male. As a data collection tool, "Self-Leadership Scale", "Leisure Management Scale" and "Personal Information Form" consisting of demographic variables were used in the research. In the data analysis, descriptive statistical methods, t test from independent samples, and one-way Variance Analysis (ANOVA) were used. In addition, Exploratory Factor Analysis (EFA) was used to determine the subdimensions of the relevant scales and correlation analysis to determine the relationship between the scales. In line with the findings of the study, it was determined that the self-leadership levels of the students of the Faculty of Sports Sciences during the online education process were close to perfect, and the levels of leisure management were close to good. In some subdimensions of the relevant scales; a significant difference according to gender, age and department variables has been found. A low-level meaningful relationship between self-leadership and leisure management has also been found. As a result of the research, it was determined that the Faculty of Sports Sciences students with formal education experience had a better level of self-leadership and leisure management than the students who participated directly in the educational process online.

Introduction

The effects of the pandemic have caused some sectoral adaptations in Turkey as well as in all countries. During the pandemic period, there have been changes in education such as business life, health sector, andsocial life (Tunç & Atici, 2020; Karakas, 2020). Therefore, different education environments such as online education, distance education, virtual learning were created, and solutions were sought to continue the education process (Basaran et al., 2020; Jnr & Noel., 2021). However, the involvement of applied sciences in sports sciences, medicine, veterinary medicine, fine arts etc. in the online education process has brought about some limitations. From this perspective, a view about the changing direction of leisure management of individuals who spend

most of their time at home, isolated in a environment, and constantly intertwined with technology. Ultimately, self-leadership traits have become important because the students were far from the guidance and they were not under control, and the teacher-student and student-student interaction process was restricted. Thus, the study gained more importance to examine the student's ability the Faculty of Sports Sciences to lead their own leadership skills and manage their leisure time in the online education process.

Online learning, with its most common usage, is equated with the concept of distance education. The inability of field experts to agree on a common definition for the concepts of e-learning, online learning or distance learning can be considered as one of the important factors affecting this situation (Lowenthal & Wilson, 2010). However, while distance learning that emerged in the 1700s is a form of education, online learning, which dates back to the 1980s (Harasim, 2000), is expressed as a learning program that can be accessed via a computer and created with other supportive learning tools or resources (Carliner, 2004). Therefore, to eliminate the misconception, it can be stated that online learning is a sub-branch of distance learning. While distance education is more comprehensive, online learning is more limited in materials, tools, place and time than distance education. Due to limitations, the student should actively participate in the process and be able to manage cognitive and behavioral processes appropriately in the learning environment. Hrastinski (2009) also argued that online learner participation creates a complex process in establishing and maintaining relationships with other individuals, which is supported by physical and psychological tools, but is not seen as meaningful with the skills of speaking and writing and emphasized the importance of student participation.

The individual should be able to recognize, and self-control in order to adapt and be successful both socially and educationally. The concept of self-leadership also covers these cognitive and behavioral processes (Dogan & Şahin, 2008). Therefore, the default associated with the online learning process and the first variable discussed in the study is self-leadership ability. This concept, which is based on the theory of social learning, has emerged from the concepts of self-regulation and self-management (Neck & Houghton, 2006) and is expressed in its most general definition as the process of influencing the individual himself (Manz & Sims, 2001). How self-governing individuals think and behave in terms of cognitive, sensory and behavioral strategies is explained by their self-leadership ability (Yun et al., 2006). In addition, there are three strategies for self-leadership. These are behavior-oriented strategies, natural reward strategies, and constructive, positive thinking strategies (Prussia et al., 1998; Neck & Houghton, 2006). When self-leadership is discussed within the scope of strategies, patterns of increased self-awareness, self-reward or punishment, behavioral management, motivation, self-evaluation, and self-speech emerge (Neck & Houghton, 2006). At this point, especially when cognitive and behavioral processes are taken into account, the individual's ability to make a plan and manage time comes to the fore.

It is thought that the individual's time management by deciding the process steps will ensure success in achieving success and gain. In this sense, time management, which is another variable of the study, and specifically leisure time management are discussed. Time management is defined as better planning and organizing time by dividing it into small slices (Güçlü, 2001). The purpose of time management can be expressed as making life easier by planning and basically not delaying today's work until tomorrow. Leisure time management, on the other hand, is defined as the period of time that individuals can arrange as they wish in

order to rest, have fun, spend quality time, and realize themselves in line with their interests, wishes and needs, in the process of sleeping, eating, working, etc. (Karakucuk, 2008). Ultimately, it is expected that the individual or individuals regulating their living standards and considering time and leisure management in the process will have positive effects in terms of educational performance.

When considering the COVID-19 pandemic and the ongoing online learning processes within the scope of the normalization process, it is thought that individuals who know themselves, plan, and manage time better than other individuals provide better efficiency. In addition, the planning of leisure time is one of the considerations to be taken into account in terms of resting, developing the individual, and being able to perform more efficiently. The behavioral development support given to children or individuals before starting the education process can be given as an example. From a different perspective, the ability of the individual to stand on his own feet, shape, and manage his life can be associated with the concepts discussed in the study. Considering the vision and mission of the Faculty of Sport Sciences, it is important to question if there is a relationship between self-leadership and leisure management for the students who are studying and who will graduate and become future trainer candidates. There has been no study in the field that addresses cognitive and behavioral processes in terms of related concepts. Therefore, the research aims to examine the self-leadership skills and leisure management of the Faculty of Sports Sciences students who are going through a difficult time period. It is aimed to shed light on the future education process and planning in terms of the limitations and characteristics of the research.

Method

Research Design

In the research, a descriptive and relational survey model was used. Relational screening models are research approaches used to determine the existence or degree of change between two or more variables (Karasar, 2009).

Research Group

The universe of this research was formed by students studying in different departments at Afyon Kocatepe University Faculty of Sports Sciences in the 2020-2021 academic year. The research sample consists of 195 students, 97 of whom are women and 98 of whom are men, who are studying in different departments of Afyon Kocatepe University Faculty of Sports Sciences. The data collection process, which was based on the voluntary participation of students, was collected online between September and October 2021.

Ethical Procedures

The ethical approval of the research was obtained with the decision of Afyon Kocatepe University Social and Human Sciences Scientific Research and Publication Ethics (2021/313:10, 19.09.2021).

Data Collection Tools

In the study, "Self-leadership Scale", "Leisure Management Scale" and "Personal Information Form" developed by researchers were used to access the demographic information of the students.

Self-Leadership Scale (SLS): It was developed by Haughton et al. (2012), and its Turkish validity and reliability were verified by Şahin (2015). The scale consists of 9 items and three sub-dimensions. The scale is a 5-point Likert Type and is scored with a range of "I strongly agree = 5" and "I strongly disagree = 1". The scale has three sub-dimensions with the subheadings of "Behavioral Awareness ", "Task Motivation" and "Constructive Cognition". As a result of the explanatory factor analysis for this study, the scale, which was validated and made reliable in Turkish by Şahin (2015), was examined according to the original order, and items 3, 8 and 9 were removed, respectively. The resulting scale was explained as a total of 6 items, with 2 sub-dimensions (Behavioral Awareness and Constructive Cognition and Task Motivation). While the Cronbach's Alpha Value for the original scale was 0.73, the Cronbach's Alpha Value for this study was 0.62.

Leisure Time Management Scale (LMS): The “Leisure Time Management Scale” which developed by Wang et al., (2011) and adapted to Turkish by Akgül and Karakucuk (2015) was used. The scale is a 5-point Likert Type (1= Totally Agree, 5= Strongly Disagree) and consists of 15 items. The scale includes four sub-dimensions called goal setting and evaluating, Technique, Leisure Attitude, and Evaluation. As a result of the explanatory factor analysis for this study, the scale was explained as a total of 15 items, with 3 sub-dimensions (Goal Setting and Evaluating, Technique, Leisure Attitude and Scheduling). While the Cronbach's Alpha Value for the original scale was 0.83, the Cronbach's Alpha Value for this study was 0.89.

Data Analysis

In order to determine the suitability of the obtained data for factor analysis, the Skewness and Kurtosis values of all expressions were examined. Since the obtained values were between [(-1.5) and (1.5)], it was accepted that the data were normally distributed (Şencan, 2005). After reaching the conclusion that the data were normally distributed, the first stage of scale validity and reliability, KMO (Kaiser-Meyer-Olkin) and Bartlett's Test of Sphericity were carried out. According to Tavşancıl (2010), it is assumed that the KMO value is perfect as it approaches 1 and unacceptable when it falls below 0.50. In the study, the KMO value was calculated as 0.700 for SLS and 0.873 for LMS. The fact that the KMO value is close to 1 in the factor analysis supports that the sample size in the study is suitable for factor analysis. Barlett's value was found to be significant ($p<0.01$). For this reason, it was accepted that the data came from a multivariate normal distribution.

In the analysis of the data, frequency and percentage analysis was used for the findings related to the demographic characteristics of the students, and the analysis of variance (one-way ANOVA, independent sample t-test) was used for the comparison of the mean scores in unrelated measurements. Tukey test was used to determine between which groups the significant difference was, and Pearson Correlation Product test was used to examine the relationship between sub-dimensions. Confidence level in the applied statistical tests was

taken as α=.05. Statistical analyzes were made with SPSS 25 for Windows package program.

Results

When Table 1 is examined, 49.7% of the participants are female and 50.3% are male individuals. 34.4% of the participants were 20-21 years old and 44.1% were teaching department students. 43.1% of respondents were 1st grade students and 54.9% were team athletes. According to the number of siblings variable, the highest participation was three siblings with 38.5%.

Table 1. Demographics and Scale Total Score Averages for Students of The Faculty of Sports Sciences

Variable		Frequency	Percentage (%)	SLS $\bar{x}\pm ss$	LMS $\bar{x}\pm ss$
Gender	Female	97	49.7	4.553±0.412	3.809±0.673
	Male	98	50.3	4.483±0.379	3.601±0.759
Age	18-19	52	26.7	4.387±0.441	3.660±0.713
	20-21	67	34.4	4.582±0.382	3.588±0.794
	22-23	46	23.6	4.445±0366	3.779±0.569
	24+	30	15.4	4.711±0.290	3.928±0.756
Department	Recreation	38	19.5	4.570±0.469	4.193±0.547
	Coaching Education	71	36.4	4.596±0.355	3.705±0.574
	Physical Education Teacher	86	44.1	4.430±0.381	3.489±0799
Grade	1st Grade	84	43.1	4.404±0.401	3.539±0.863
	2nd Grade	13	6.7	4.628±0.491	3.810±0.603
	3rd Grade	53	27.2	4.490±0.354	3.603±0.579
	4th Grade	45	23.1	4.729±0.320	4.102±0.420
Type of sport	Team Athlete	107	54.9	4.541±0.405	3.587±0.845
	Individual Athlete	88	45.1	4.498±0.394	3.801±0.589
Number of siblings	One Child	5	2.6	4.466±0.074	1.866±0.000
	2	66	33.8	4.555±0.370	3.630±0.739
	3	75	38.5	4.593±0.327	3.752±0.651
	4-+	49	25.1	4.357±0.497	3.919±0.558

When Table 2 was examined, it was determined that the self-leadership scale consisted of 2 sub-dimensions in total. “Behavioral Awareness and Constructive Cognition” is explained by 3 items and “Task Motivation” is explained by 3 items. The 2 factors obtained as a result of this explanatory factor analysis account for 57,857% of the total variance. BAVC1 and BAVC 2 variables with a load of 0.802 for “Behavioral Awareness and Constructive Cognition” are considered the most effective variables of TM 1 variables with a load of 0.759 for “Task Motivation”. Cronbach's Alpha for the scale was calculated as 0.627, which indicates that reliability is sufficient for all items in the scale.

Table 2. EFA Results and Cronbach's α values on the Self-Leadership Scale

Factors/Items	Factor Load	Eigen Value	Variance Described (%)	α
BAVC Behavioral Awareness and Constructive Cognition				
BAVC 1. I visualize myself successfully performing a task before I do it	0.802			
BAVC 2. I establish specific goals for my own performance	0.802	2.303	33.784	0.733
BAVC 3. When I have successfully completed a task, I often reward myself with something I like	0.785			
TM TASK Motivation				
TM 1. Sometimes I picture in my mind a successful performance before I actually do a task	0.759			
TM 2. I make a point to keep track of how well I'm doing at work	0.662	1.168	24.073	0.497
TM 3. I try to mentally evaluate the accuracy of my own beliefs about situations I am having	0.632			

When Table 3 was examined, it was determined that the Leisure Management scale consisted of 3 sub-dimensions in total. "Goal Setting and Evaluating, Technique" has been explained with 9 items and "Leisure Attitude" with 3 items and Scheduling with 3 items. The 3 factors obtained as a result of the descriptive factor analysis account for 74,253% of the total variance. In terms of loads within the factors, GSET 1 is considered the most effective variable with a load of 0.909 for "Goal Setting and Evaluating, Technique," LA 1 variable with 0.904 load for Leisure time Attitude and Scheduling 1 with 0.863 load for Scheduling. Cronbach's Alpha for all 3 dimensions of these dimensions is calculated as 0.889, which is an indication that reliability is sufficient for all of the items included in the scale.

Table 3. EFA Results and Cronbach's α values for the Leisure Management Scale

Factors/Items	Factor Load	Eigen value	Variance Described (%)	α
GSET Goal Setting and Evaluating, Technique				
GSET 1. I collect information about leisure activities	0.909			
GSET 2. I set priorities for my leisure time	0.900	6.913	42.039	0.949
GSET 3. I organize my leisure time on a daily or weekly basis	0.881			
GSET 4. I make a list of things I can do in my leisure time	0.876			
GSET 5. I organize activities that I can do in my leisure time	0.852			

Factors/Items	Factor Load	Eigen value	Variance Described (%)	α
GSET 6. I set a goal for my leisure time	0.790			
GSET 7. I evaluate my leisure time	0.786			
GSET 8. I protect some of my time for leisure activities	0.744			
GSET 9 I use my waiting times	0.707			
LA Leisure Time Attitude				
LA 1 Leisure time meaningful	0.904			
LA 2 Leisure is happy	0.857	2.581	16.615	.831
LA 3 Leisure time use is important	0.744			
Scheduling				
Scheduling 1. I think it is waste of time to make a leisure program	0.863	1.644	15.599	.822
Scheduling 2. I believe leisure time is unpredictable	0.844			
Scheduling 3. I don't know what to do with my leisure time	0.834			

The relationships between LM and SLS scales were examined by Pearson Correlation Analysis and a positive low-significant relationship was found between leisure management and self-leadership scale scores (r=204**) of Sports Science students. When Table 4 was examined, there was a significant difference in the sub-dimension of the Students' Task Motivation and Leisure Management scale Leisure attitude on the Self-Leadership scale according to the gender variable, while no significant differences were found in other sub-dimensions. Task Motivation (p<.05) and Attitude (p<.05) were found to differ in favor of female in their sub dimension.

Table 4. Comparison of Score Averages of Sports Science Students on SLS and LM scales by Gender variable

Scales	Scale Subdivisions	Gender	x̄±ss	*t* statistics	df	*p*
Self-leadership	TM	Female	4.580±0.417	3.034	193	**.003***
		Male	4.377±0.512			
	BAVC	Female	3.416±0.610	-0.842	193	.401
		Male	3.192±0.676			
Leisure management	GSET	Female	3.776±0.988	1.757	193	.081
		Male	3.531±0.958			
	LA	Female	4.367±0.570	2.367	193	**.019***
		Male	4.064±1.126			
	Scheduling	Female	3.350±1.129	0.23	193	.981
		Male	3.346±1.007			

*p<.05, TM; Task motivation, BAVC; behavioral awareness and Constructive Cognition, GSET; Goal Setting and Evaluating, Technique, LA; leisure attitude.

When Table 5 was examined 1st grade students for BAVC (p<.001) subdimension on were found to have lower average score than other grade groups. For TM, 2nd grade students were found to have a better task motivation average score than other grades (p<.05). For Leisure Attitude dimension, 4th grade students were found to have higher scores (p<.05).

Table 5. ANOVA Results on SLS and LM Scales by Grade Variable of Sports Science Students

Scales	Scale Subdivisions	Grade Range	x̄±ss	*F*	*p*	*Tukey*
Self-leadership	TM	1st grade	4.480±0.473	3.955	**0.009***	2-3*
		2nd grade	4.572±0.444			
		3rd grade	4.282±0.506			
		4th grade	4.566±0.439			
	BAVC	1st grade	4.294±0.652	8.954	**0.000***	1-2* 1-3* 1-4*
		2nd grade	4.592±0.452			
		3rd grade	4.608±0.405			
		4th grade	4.855±0.335			
Leisure management	GSET	1st grade	3.559±0.849	1.181	0.318	-
		2nd grade	3.540±1.054			
		3rd grade	3.799±0.764			
		4th grade	3.844±1.256			
	LA	1st grade	4.173±0.927	3.961	**0.009***	4-1* 4-2* 4-3*
		2nd grade	4.099±0.069			
		3rd grade	4.101±0.712			
		4th grade	4.722±0.495			
	Scheduling	1st grade	3.448±0.867	0.526	0.665	-
		2nd grade	3.218±1.051			
		3rd grade	3.398±1.208			
		4th grade	3.388±1.203			

*p<.05, TM; Task motivation, BAVC; behavioral awareness and Constructive Cognition, GSET; Goal Setting and Evaluating, Technique, LA; leisure attitude.

When Table 6 was examined, the sub-dimension of "Behavioral Awareness and Constructive Cognition" regarding the Self-Leadership scale of the students showed a significant difference compared to the Department variable. No significant difference was detected in the "Goal Setting and Evaluating, Technique" and Leisure attitude sub-dimension of the Leisure Management scale. The sub-dimension of "Behavioral Awareness and Constructive Cognition" (p<.01) was found to differ in favor of the Recreation Department compared to other departments. In the sub-dimensions of "Goal Setting and Evaluating, Technique"(p<.01) and Leisure Attitude (p<.01), the Recreation Department was found to have favorable results compared to other departments.

Table 6. Post-Hoc Test Results on SLS and LM scales according to faculty departments variable of Sports Science Students

Scales	Scale Subdivisions	Faculty Department	x̄±ss	*F*	*p*	*Tukey*
SELF-LEADERSHIP	TM	1. Recreation	4.438±0.595	0.563	0.570	-
		2. Coaching Education	4.525±0.483			
		3. Physical Education Teacher	4.457±0.412			
	BAVC	1. Recreation	4.701±.0450	7.276	**0.001***	2-1* 2-3*
		2. Coaching Education	4.666±0.386			
		3. Physical Education Teacher	4.403±0.600			
LEISURE MANAGEMENT	GSET	1. Recreation	4.353±0.800	12.201	**0.000***	1-2* 1-3* 2-3*
		2. Coaching Education	3.668±0.922			
		3. Physical Education Teacher	3.372±0.979			
	LA	1. Recreation	4.763±0.416	12.733	**0.000***	1-2* 1-3* 2-3*
		2. Coaching Education	4.267±0.729			
		3. Physical Education Teacher	3.930±1.065			
	Scheduling	1. Recreation	3.412±1.274	0.444	0.642	-
		2. Coaching Education	3.253±1.145			
		3. Physical Education Teacher	3.399±0.894			

*p<.05, TM; Task motivation, BAVC; behavioral awareness and Constructive Cognition, GSET; Goal Setting and Evaluating, Technique, LA; leisure attitude.

Discussion

The purpose of this research is to examine and evaluate the self-leadership and leisure time management of the Faculty of Sport Sciences students in the online education process according to various variables (gender, grade, department). In addition, it was noted that studies focusing on self-leadership skills and leisure management dealt with the relevant variables one by one, and it can be said that this study is a first in the literature since it deals with both variables together and the data are collected during the COVID-19 pandemic. The data obtained in this section have been interpreted and tried to be supported by existing studies in the literature.

When the research data were examined, it was determined that the students of the Faculty of Sport Sciences had higher average scores than the self-leadership scale. Accordingly, it can be said that the duties and responsibilities of the students of the Faculty of Sport Sciences in university life affect their self-management skills. Academic duties and expectations for success can be listed at the beginning of the responsibilities mentioned above. There are studies supporting this view in the literature (Türköz et al., 2013; Bozyiğit & Çetin, 2019). As a matter of fact, according to the results of the current studies, it is concluded that the self-leadership behaviors of the students who are interested in any sports branch are better and higher (Bum, 2018).

According to another finding, in the task motivation sub-dimension of the participants' self-leadership scale, female students' scores were higher than male students according to the gender variable. The reason for this situation can be explained by the coincidence of the research with the pandemic period, the stereotypical beliefs that are assumed to be gender-specific, and the culture, customs, and traditions. In addition, task motivation focuses on the enjoyable aspects of the job or activity. Therefore, it is seen that the individual who has developed self-leadership skills is motivated by the work or activity, is rewarded, and is conscious in terms of evaluating the conditions (Houghton & Yoho, 2005). In this context, it is seen that gender difference among students affects self-leadership behaviors, and this situation is supported by the literature (Herdem, 2019; Pajares & Schunk, 2001; Karagöz et al., 2020).

According to research data, significant differences were determined in the BAVC and TM sub-dimensions of self-leadership according to the grade variable. In the BAVC ($p<.001$) sub-dimension, it was found that the 1st graders had a lower average score than the other grade groups.The fact that first graders start their undergraduate education directly online without ever coming to school suggests that there is a disadvantage in their self-leadership skills. Based on this idea, it can be said that the 1st grade students of the Faculty of Sport Sciences cannot motivate due to their inability to interact with each other like the one in face-to-face education environment, lack of classroom environment, information sharing among friends and such things, and thus, their leadership skills are at a low level. In the study conducted by Mutlu et al., (2020) on the leadership behaviors of Sport Science students, it was found that the 3rd graders had higher leadership scores than the 1st and 2nd grade students among the scale sub-dimensions according to the grade levels of the students. In this study, it was found that in the TM ($p<.05$) sub-dimension of the self-leadership scale, the 2nd graders had a better task motivation average score than the other grades. It may be possible to explain this situation by the fact that the 2nd graders start face-to-face education and learn about university life (being away from family, managing their own anxiety and stress, etc.) before the pandemic period. It is thought that the 1st graders receiving education in completely online courses negatively affect their task motivation. It is difficult to expect sufficient learning effects if the learner does not create an environment for self-learning or have the motivation to learn (Kim, 2019). In addition, it is expected that the task motivation of the 3rd and 4th grade students will be lower in a period when their thoughts about future and employment situations are considered too much, and thus, their interest in courses decreases and their exam anxiety increases (Zhu et al., 2020).

A significant difference was found between the departments in the Behavioral Awareness and Constructive Cognition sub-dimension of the students' Self-Leadership scale. BAVC sub-dimension mean scores of the students of the Recreation Department were found to be significantly higher than the other departments. It may be possible to explain this difference with the theoretical, leadership skills and effective communication skills in the current course contents of the Recreation Department students. Finally, it can be said that the education process has positive effects on the self-leadership skills of the students of the Recreation Department (Gammonley & Luken, 2001).

Another important variable of the research is the examination of the leisure time management of the students of the Faculty of Sport Sciences. Leisure management is defined as “a decision-making style that individuals use to

structure, protect and adapt their leisure time according to changing conditions" (Aeon et al., 2021). According to the data obtained from this study, the scores obtained by the students of the Faculty of Sport Sciences from the sub-dimensions of the LM scale are similar to the relevant literature (Soylu & Akın, 2021; Yağmur & Ocak, 2006). In this study, it was determined that the leisure time management behaviors of the students of the Faculty of Sport Sciences were close to good. When the research data were examined, a significant difference was found in favor of females according to the gender variable in the attitude sub-dimension of the Leisure Time Management scale. Gender is seen as a social variable that limits individuals' leisure time management. This situation can be evaluated in different ways according to the cultures of the societies (Aytaç, 2017; Çoşkun, 2021, Dinç & Karagöz, 2020). Aitchison's (2005) research shows that the attitudes and experiences of women in sports, and leisure management are shaped by both structural and cultural factors. Based on the results of this research, it can be said that female students studying in Sports Sciences are better than male students in the attitude sub-dimension of the LM scale.

When the data related to the Leisure Management scale were analyzed according to the grade variable, a significant difference was found in the attitude sub-dimension. A significant difference was found between 4th graders and other grade levels in favor of 4th graders. Yaşartürk et al. (2018) examined the leisure management skills of the Recreation Department students and reported that according to the grade variable, the leisure management skills of the upper grades were better than the leisure management skills of the 1st and 2nd grades. As a similar result in this study, it was found that the 4th grade Faculty of Sport Sciences students were better in the attitude sub-dimension of the LA scale compared to the other grades. It is thought that the students of the 4th grade Faculty of Sports Sciences have more school and life experience, and the formation of professional awareness positively affects their attitudes towards leisure management.

When the data related to the Leisure Management scale were analyzed according to the department variable, a difference was found between the Recreation Department and other departments in favor of the Recreation Department in the sub-dimension of aim setting, method and evaluation, and attitude. The aims of the Recreation Departments are to ensure and increase the lifelong conscious participation of individuals with different personalities in the societies, and to prepare and present the leisure management of individuals in many areas through versatile graduates they have trained. Therefore, it is expected that the students of the Recreation Department of the Faculty of Sport Sciences will be better at using general time management and techniques efficiently than other departments.

In addition, another research finding is about the relationship between self-leadership and leisure management skills of students studying at the same faculty. Relationships between LM and SLS scales were examined, and it was determined that there was a positive low-significant relationship between the leisure time management and self-leadership scale scores (r=204**) of Sports Science students. It is important in terms of awareness that there is a positive relationship between the self-leadership and leisure management skills of Sports Science students. It is important for students to know their own values and abilities in university life, where both academic and professional knowledge and skills are acquired.

Conclusion

As a result, it can be said that individuals who can make decisions, plan and schedule, shape and manage their lives and make good use of their time benefit more from the education they receive during the COVID-19 pandemic. Considering that the students of the Faculty of Sports Sciences can make interpersonal and internal evaluations, the positive effects of sports can also be mentioned. In addition, it was emphasized that the importance of time, leisure time, leisure time management, and self-leadership skills are considered necessary in online education and during the pandemic process.

Implications

In the literature, there are studies on self-leadership skills and leisure management. However, this research is original in that it focuses on the relationship between two important variables in terms of cognitive processes and also deals with the COVID-19 process. In this sense, it is thought that the current research results will fill the relevant gap in the literature.

Self-leadership and leisure management are at the center of the needs necessary to cope with the organizational challenges of the 21st century and the constraints of the COVID-19 pandemic. It is foreseen that the results of the research will contribute to the development of students at all levels, as well as the students of the Faculty of Sports Sciences, to educators, trainers, physical education teachers, and academicians at all levels, starting from pre-school education. It is expected that the results of the research will shed light on education and sports sciences on the development of self-leadership skills of students at all levels and their ability to manage their leisure time.

Limitations

Based on the findings of the current study, several limitations were taken into account when interpreting the research findings. Firstly, data were collected by online data collection method (online, google form) with self-leadership and leisure management scales which could mean the existence of a bias. For a healthier and more accurate assessment of self-leadership and leisure management skills, it is recommended to collect data face-to-face with multiple measurements. Another limitation is that the sample group is limited to Afyon Kocatepe University Faculty of Sport Sciences students. Therefore, further research is required as to whether the presented findings can be generalized to larger populations.

Notes

Statement of Responsibility-Şeniz Karagöz and Halime Dinç: conceptualization, document analysis, data analysis, investigation, resources, writing-original draft, writing-review & editing. Didem Gülçin Kaya: conceptualization, methodology, document analysis, data analysis, writing - review & editing.

References

Aeon, B., Faber, A., & Panaccio, A. (2021). Does time management work? A meta-analysis. *PloSone,*16(1) e0245066. https://doi.org/10.1371/journal.pone.0245066

Aitchison, C. C. (2005). Feminist and gender research in sport and leisure management: Understanding the social–cultural nexus of gender–power relations. *Journal of Sport Management*, 19(4), 422-441.https://doi.org/10.1123/jsm.19.4.422

Akgül, B. M., & Karaküçük, S. (2015). Leisure management Scale: Validity-reliability Study. International *Journal of Human Sciences*, 12(2), 1867-1880. doi:10.14687/ijhs.v12i2.3445

Aytaç, Ö. (2017). Sociology of Leisure Time in Terms Functionalist Approach: Institutions, Processes, Activities. *The science of recreation II*, 12-15.

Başaran, M., Doğan, E., Karaoğlu, E., & Şahin, E. (2020). A study on the effectiveness of distance education, which is the result of the coronavirus (Covid-19) pandemic process. *AJER - Journal of Academia Educational Research*, 5(2), 368-397.

Bozyiğit, E., & Çetin, E. (2019). Investigation of Self-Leadership Levels of Sports Science Students. *Sportmeter Journal of Physical Education and Sport Sciences*, 17(1), 78-87.

Bum, C. H. (2018). Relationships between self-leadership, commitment to exercise, and exercise adherence among sport participants. *Social Behavior and Personality an international journal,* 46(12), 1983-1995.

Carliner, S. (2004). An overview of online learning (2nd ed.). Armherst, MA: *Human Resource Development Press.*

Coşkun, G. (2021). Turkish Society's Participation in Leisure Activities: Motivation and Barriers. *Journal of Ahi Evran University Social Sciences Institute*, 7(1), 50-64.

Dinç, H., & Karagöz, Ş., (2020) "Evaluation of Desk Workers Health Perceptions According to Their Leisure Time Attitudes and Participation" *Ambient Science* 07 Sp (1) s: 70-74 Doi: 10.21276/ambi.2020.07.sp1.oa08

Doğan, S., & Şahin, F. (2008). Bireysel Performansı ve Verimliliği Artımada Kendi Kendine Liderlik Yaklaşımının Önemi. ISGUC *The Journal of Industrial Relations and Human Resources,* 10(1), 77-95.

Gammonley, D., & Luken, K. (2001). Peer education and advocacy through recreation and leadership [Editorial]. *Psychiatric Rehabilitation Journal*, 25(2), 170–178. https://doi.org/10.1037/h0095028

Güçlü, N., (2001). Time Management. *Educational Management in Theory and Practice,* 25(25), 87-106.

Harasim, L., (2000). Shift happens: Online education as a new paradigm in learning. *The Internet and Higher Education*, 2(1–2), 41−61, doi:10.1016/S1096-7516(00)00032-4

Herdem, D.Ö., (2019). A Comparison of Self-Leadership Characteristics of the Students of Department of Fine Arts and the Others" The Case of Gazi University". *Universal Journal of Educational Research*, 7(1), 198-205

Houghton, D.J., Dawley, D., & DiLiello, T.C., (2012). Abbreviated self-leadership questionnaire (ASLQ): A more concise measure of self-leadership, International *Journal of Leadership Studies*, 7(2), 216-232.

Houghton, J. D., & Yoho, S. K,. (2005). Toward a Contingency Model of Leadership and Psychological Empowerment: When Should Self-Leadership Be Encouraged? *Journal of Leadership & Organizational Studies*, 11(4), 65–83. https://doi.org/10.1177/107179190501100406

Hrastinski, S., (2009). A theory of online learning as online participation. *Computers & Education,* 52, 78-82.

Jnr, B. A., & Noel, S. (2021). Examining the adoption of emergency remote teaching and virtual learning during and after COVID-19 pandemic. *International Journal of Educational Management*

Karagöz, Ş., Tortop, Y., & Dinç, H., (2020) Investigation Of The Relationship Between The Participation To Recreational Activities At Public Education Centers And The Quality Of Life Of People Attending These Courses: Afyonkarahisar Example. *Turkish Journal of Sport Sciences*, 4(1), 9-20. https://doi.org/10.32706/tusbid.704720

Karakaş, M., (2020). The multidimensional sociology of the Covid-19 pandemic and the issue of the new normal. *Istanbul University Journal of Sociology*, 40, 541–573. https://doi.org/10.26650/SJ.2020.40.1.0048

Karaküçük, S., (2008). "*Recreation"* Evaluation of Leisure Time. Ankara: Gazi Bookstore.

Karasar, N., (2009). *Scientific Research Method* (19th Edition). Ankara: Nobel

Kim, S. E., (2019). *The effect of online class quality on perceived usefulness, learning immersion, and learning satisfaction in a flipped learning environment.* Konkuk University graduate school master's thesis, 55-56.

Lowenthal, P., & Wilson, B. G. (2010). Labels Do Matter! A Critique of AECT's Redefinition of the Field. *TechTrends*, 54, 38-46. http://dx.doi.org/10.1007/s11528-009-0362-y

Manz, C. C., & Sims, H. P. Jr. (2001). *New SuperLeadership*: Leading Others to Lead Themselves, Berrett-Koehler, San Francisco, CA.

Mutlu, T. O., Şentürk, H. E., Akoğlu, H. E., Çetinkaya, A., & Ağılönü, A. "Investigation of Leadership Behaviors of Faculty of Sport Sciences Students". Sports perspective: *Journal of Sports and Educational Sciences*, 7-S2, sayfa:25-38 Doi: 10.33468/sbsebd.131

Neck, C. P., & Houghton, J. D., (2006). Two decades of self leadership theory and research: past developments, present trends, and future possibilities. *Journal of Managerial Psychology*, 21(4), 270-295. https://doi.org/10.1108/02683940610663097

Pajares, F., & Schunk, D. H., (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. *Perception*, 11(2), 239-266.

Prussia, G. E., Anderson, J. S., & Manz, C. C., (1998). Self-leadership and performance outcomes: The mediating influence of self-efficacy. *Journal of Organizational Behavior,* 19(5), 523-538. https://doi.org/10.1002/(SICI)1099-1379(199809)19:5<523: AID-JOB860>3.0.CO;2-I

Şahin, F., (2015). The convergent, discriminant, and concurrent validity of scores on the abbreviated selfleadership questionnaire, *The Journal of Human and Work*, 2(2), 91-104.

Şencan H., (2005) Reliability and Validity in Social and Behavioral Measures (1st Edition) Seçkin *Publishing Industry and Trade* A.Ş, Ankara, 499-559.

Soylu, B. & Akın, S., (2021). Comparison of Leisure Time Management Skills of Kütahya Dumlupınar University Students from Different Departments. *International Sports Science Student Studies*, 3 (1), 42-48 . Retrieved from https://dergipark.org.tr/en/pub/i4s/issue/63060/958566

Tavşancıl, E., (2010). *Measuring Attitudes and Data Analysis with SPSS*. (4th Edition). Ankara, Nobel Publication Distribution.

Tunç, A., & Atıcı, F. Z., (2020). Combating Pandemics in the World and in Turkey: An Evaluation in the context of risk and crisis management. Troyacademy (*International Journal of Social Sciences)*, 5(2),

329-362. Doi: https://doi.org/10.31454/usb.808685

Wang, W.C., Kao C.H., Huan, T. C., & Wu, C.C., (2011). Free Time Management Contributes to Better Quality of Life: A Study of Undergraduate Students in *Taiwan*. *Journal of Happiness Studies*, 12(4):561-573.

Yağmur, R., &, Ocak, Y., (2006). Comparison of The Free Time Activities of Afyon Kocatepe University Physical Education and Sports School Students and Students from Different Departments. *Journal of Sports and Performance Research,* 4(1), 5-16.

Yaşartürk, F., Akyüz, H. & Karataş, İ., (2018). Investigation of the Relationship between Leisure Management and Organizational Factors Affecting Academic Achievement of Recreation Department Students. *Journal of Sport Sciences Research,* 3 (2), 233-243. Doi: 10.25307/jssr.485859.

Yun, S., Cox, J., & Sims, H.P . Jr., (2006). The forgotten follower: a contingency model of leadership and follower self-leadership. *Journal of Managerial Psychology*, 21(4), 374-388.doi: 10.1108/02683940610663141

Zhu, Y., Zhang, J. H., Au, W., & Yates, G., (2020). University students' online learning attitudes and continuous intention to undertake online courses: A self-regulated learning perspective. *Educational technology research and development,* 68(3), 1485-1519.

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