Examination of sports science faculty students’ attitudes towards online learning by different variables

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Abstract

In distance education, students’ attitudes towards this method gain importance in the process. The aim of this research is to examine the impact of coronavirus anxiety, academic self-sufficiency and life satisfaction levels of students in the faculty of sports sciences over their attitudes towards online learning.

Material and Methods

A total of 379 sports science faculty students voluntarily participated for the cross-sectional data collection. A simple random sampling method was used in the selection of students from four universities in the Eastern Anatolian region, which make up the universe of the study. Data were collected electronically and analysed by IBM SPSS and AMOS statistical package program.

Results:

The structural equity model results revealed that academic self-sufficiency and life satisfaction are positive predictors of online learning attitudes and negative predictors of coronavirus anxiety. Online learning attitude was found to be positively correlated with other variables other than coronavirus anxiety. In addition, it has been determined that the scale total scores are slightly above average, except for coronavirus anxiety.

Conclusions:

The results have been discussed in terms of their meaning for the environment of physical education. In this research, which created a model for understanding online learning attitudes in students of the faculty of sports sciences, it was understood that coronavirus anxiety has a statistically significant effect on online learning attitudes while academic self-sufficiency and life satisfaction do not have a statistically significant effect. Students' positive attitude towards online learning and understanding the predictors of this attitude will be a development to be appreciated by all stakeholders of the subject.

Keywords:
sports sciences, online learning, coronavirus anxiety, academic self-sufficiency, life satisfaction.

Introduction

The continuous self-renewal of technology and adaptation to the conditions of the times have manifested itself in the field of education as well as in many other fields. Subject of education also try to keep up with the conditions of the current trends and move into new learning environments following the technological developments. One of these new learning environments is undoubtedly the online learning environment [1].

From both a pedagogical and technical point of view, it is safe to say that online learning is rapidly changing and being developed. As technological advances enable the development of new software and hardware, they constantly lead researchers to analyse the success of theories and concepts between media, technology, and teaching strategies. However, researchers are struggling to expand on what kind of knowledge, skills and attitudes are necessary for the success of online learning [2].

At the beginning of 2020, human race faced the threat of a virus that was claimed to have appeared in Wuhan, China. Different measures and practices have been raised because of the fast spread of the virus threatening the lives of many affecting countries and the global economy. After the healthcare sector, education sector took the next big hit as a result of the pandemic [3]. According to the latest data obtained from the United Nations, almost 770 million learners (students, etc.) have been affected by the closure of schools and universities [4].

In this globalized and digitized century, governments, educational institutions and companies around the world increasingly encouraged online learning, and so the transition from traditional face-to-face classrooms to remote and online learning has spread around the world [5]. As of March 13, 2020, education was suspended in schools and 18 million primary and secondary education students who had previously received face-to-face education started to receive their education from their homes. At the same time, approximately 8 million students enrolled in associate, undergraduate and graduate programs have started to receive distance education after a brief break from their traditional education [6].

As one of the most important elements of online learning environments, students’ positive or negative attitude towards these programs has a great impact on learning [7]. Studies conducted to study the effects of the attitude over student actions have concluded that conflicting emotions, interests, and thoughts on a topic, affect behaviour that is displayed or to be displayed [8]. A positive attitude towards learning allows students to strive to learn the knowledge and skills that will be useful to them in life and ultimately set them ready for the behavioural, emotional and psychomotor aspects required in the courses [9–12]. It is believed that the number of
students who do not want distance education is more than usual especially in sports science academies, due to the fact that the courses of this particular department usually require physical participation [13].

During the course of this pandemic, anxiety, fear and uncertainty interact in a multifaceted way. The predisposition of emotionally, cognitively, and behaviourally negative reactions to uncertain events and situations manifests itself as intolerance [14]. In addition, Aktaş et al. has found out that students wanted to follow up with their courses remotely but at the same time, the exams conducted through the distance education system do not increase their competency rates and thus, do not really improve their conditions [13]. From this point of view, it is assumed that there is an inverse correlation between coronavirus anxiety and online learning motivation. One of the factors affecting the student’s success in their courses is their self-sufficiency levels [15]. Some research shows that the perception of self-sufficiency influences success [16–19]. Life satisfaction shows the cognitive side of the value that a person attributes to him/herself, while academic motivation is related to motivators towards learning. Therefore, it is as expected that the academic motivations of individuals with high satisfaction of life will also be high. One important predictor of satisfaction of life is loneliness. Given the negative effects of loneliness, which is a natural outcome of the pandemic and lockdowns, it is possible that there is a negative correlation between loneliness and life satisfaction [20].

After the coronavirus outbreak, online learning has become a common education tool for students of the faculty of sports sciences. However, it is thought that it is important to question the attitudes of students towards online learning in terms of various variables. Therefore, at a time when the effects of the pandemic still continue to dominate our country, it is a question of whether these effects have a role to play in explaining the attitudes of online learning by evaluating the coronavirus anxiety, academic self-sufficiency and life satisfaction levels of the students of the faculty of sports sciences. Thus, it would be possible to know what types of variables should be laid out in any possible intervention programs in the future, in an evidence-based manner. In this study, the effects of coronavirus anxiety, academic self-sufficiency, and life satisfaction levels over online learning attitudes of sports sciences faculty students in the adaptation to changing living conditions during the distance learning phase due to coronavirus were examined. For this purpose, basic three hypotheses were examined in the structural model: \( H_1 \): Coronavirus anxiety positively affects the attitude towards online learning, \( H_2 \): The sense of academic self-sufficiency positively affects the attitude towards online learning and \( H_3 \): Life satisfaction positively affects the attitude towards online learning.

**Material and Methods**

**Study design.** This research was designed in relational screening model. In this context, structural equation modeling (SEM), a data analysis method often used in correlational research, was used to explain predictor correlations between variables as it allows to simultaneously study predictive correlations between variables [21].

**Participants.** The universe of the research consists of about 2785 students who study in the Faculty of Sports Sciences of 4 different universities in the Eastern Anatolia region. The sample consists of a total of 383 students, 245 (63.96%) male and 138 (36.04%) female students, selected by simple random method from probabilistic sampling techniques. The characteristics of the units that make up the universe are not very important in terms of sampling, and simple random sampling may be preferred if the characteristics of the units are homogeneous [22]. A sample of about 10 times the number of variables observed in structural equality modeling studies is considered sufficient in cases where the data is distributed normally [23]. Again, the minimum number of samples for structural equality models, provided that they demonstrate a normal distribution, is 100, and the sample size, which is usually considered sufficient, is 200 [24].

In another analysis, critical number of people was found to be 378 and the strength of the study was determined as .948 [25]. These results show that the power of hypothesis testing is at a high level.

**Data Collection.**

The OLAS (Online Learning Attitude Scale) used in the study to measure university students’ attitudes towards online learning was developed by Usta et al. [26]. OLAS has a likert type of 5 and consists of a total of 20 items. The scale measures the educational burnout as a structure consisting of four different dimensions: “general acceptance”, “individual awareness”, “usefulness”, and “practical effectiveness”. This four-factor structure accounts for a total of 63.82% of the variance related to educational burnout. Factor load values of items vary between -0.43 and 0.81. Any high score taken from each of the four factors of the scale and the entire scale means that the level of educational burnout experienced by the individual is high. As a result of the analysis based on the internal consistency criteria, it was concluded that the factors contained in the scale were distinctive in measuring the property to be measured. Internal coefficients of consistency (Cronbach Alpha) were calculated as .77 for the overall acceptance factor, .85 for the individual awareness factor, .79 for the usability factor, and .68 for practical effectiveness. The internal coefficient of consistency for the entire scale was found to be 0.904.

Accordingly, as a result of repeated Discriminant function analysis for the current study, it was observed that compliance indexes indicate sufficient compliance (CMIN/DF= 3.77; GFI = .83; AGFI = .79; NFI = .87; CFI = .90; SRMR = .05). Although it is suggested that the GFI and AGFI values of absolute compliance indices which are between 0.90 and 0.95 indicate a satisfactory level of compliance, Anderson & Gerbing and Marsh et al. states that situations where the GFI value is 0.85 and the AGFI value is above 0.80 are also acceptable for compliance
Life Satisfaction Scale (LSS). The LSS used in the research was developed by Dağlı et al. in order to get the students’ views on their satisfaction from life [34]. LSS has a likert type of 5 and consists of a total of 5 items. LSS which has been studied for validity and reliability, shows the same characteristics as the original scale, which is one-dimensional and consists of five questions. To test the consistency between scores from both scales, pearson product-moment correlation coefficient was calculated and it was found to be 0.92. As a result of statistical analysis, the Cronbach Alpha reliability coefficient of the scale consisting of 5 questions and one dimension was calculated as 0.832. Cronbach Alpha internal consistency coefficient of the scale was found to be 0.88 and test-retest reliability was found to be 0.97. The results of the factor analysis revealed that the LSS showed a single-factor structure, as it was on the original scale, and consisted of 5 items, again as in the original scale. Factor load values of the scale vary between .72 and .89. The scale describes a total of 68.38% of the variance for life satisfaction. The higher the scores taken from the sum of the scale, the higher the level of life satisfaction of the individual.

Accordingly, as a result of repeated Discriminant function analysis for the current study, it was observed that compliance indexes indicate sufficient compliance (RMSEA = .06; GFI = .98; AGFI = .96; NFI = .98; CFI = .98; SRMR = .023). The reliability coefficient for LSS was calculated as 84. Based on this, we can say that the whole of LSS is over the lower limit necessary for the measurement tool to be considered reliable which is .70 [21,29–31].

Statistical analysis.
Permissions to use the scale and other data collection tools in the research process and approval of the Ethics Committee have been obtained. The scale questions uploaded to the online system were answered with the participation of a total of 383 students. After the data was uploaded to the digital environment, the data set was tested for parametric statistical analysis. The analysis was conducted with version 22 of IBM SPSS Statistics and version 24 of IBM SPSS AMOS (Chicago, USA). In order to make structural equality modelling in the analysis of the data, some assumptions had to be made. The assumptions in question are that observable and implicit variables have a multivariate normal distribution, there are no multiple linear connections between variables and the extraction of outliers in the data set [35–37]. For this purpose, z test and coefficients of kurtosis and skewness were examined (-1, +1) [38], (-2, +2) [39]. However, it was determined that the coefficients of kurtosis and skewness of the data were in the specified ranges for online learning (.18; -.54), academic self-sufficiency (-.14; -.06), coronavirus anxiety (.74; -.10) and life satisfaction (.05; -.46). In the next step, the end values (outliers) were examined and at this stage, 3 data sets that deviated from the normal distribution were excluded from the analysis. In order to examine the multi-directional end values alongside the single-directional end value analysis, the Mahalonobis distance coefficients were examined and 1 data set was...
taken out of the analysis by taking this into account. After analysing the single directional and multi directional end values, Assessment of normality test was carried out and it was understood that the data met the conditions of multiple normality. After the normal distribution counts were tested, the variance inflation factors and Autocorrelation were examined before the analysis and after it was determined that there was no auto-correlation and the variance inflation factors were within the required limit values, it was decided that the data set was suitable for parametric statistical analysis. Path analysis was carried out within the framework of structural equality modelling to determine the direct and indirect predicting power of the independent variable over the dependent one. $X^2/Sd$, RMSEA, RMR, CFI, IFI, NFI, GFI and AGFI compliance indexes were used to evaluate the compliance of path analysis model.

**Results**

Findings regarding the Descriptive Statistics of Variables.

Descriptive statistics, range, kurtosis and skewness features for all scales are presented in Table 1.

The average scores of participants appear to be slightly above the midpoint for all variables except coronavirus anxiety. It has been observed that the values of kurtosis and skewness meet the +1 and -1 range which is the assumption of normality [40,41].

Findings regarding the study of online education attitudes via path analysis.

At the data analysis stage, correlation analysis was conducted to test the correlations between “online education attitude”, which is the predicted variable of the research, and “coronavirus anxiety”, “academic self-sufficiency” and “life satisfaction” which are the predictors. Correlations between variables were studied by using pearson product-moment correlation analysis. Correlations between the variables are presented in Table 2.

There is a positive and statistically significant correlation between the total scores received by the students participating in the study for online learning attitude scale and its lower dimensions. Online learning attitude scale scores appear to have a positive and low-level correlation with academic self-sufficiency and life satisfaction scales. In addition, it is understood that it has a negative and low-level correlation with the coronavirus anxiety scale. The Predictor effect of “coronavirus anxiety”, “academic self-sufficiency”, “life satisfaction” variables on the “online learning” variable was tested by path analysis in the following figure.

In the model presented in Figure 1, model compliance

Table 1. Descriptive statistical results for variables

<table>
<thead>
<tr>
<th>Scales</th>
<th>Number of people</th>
<th>Range</th>
<th>Average</th>
<th>Standard Deviation</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Total</td>
<td>379</td>
<td>1-5</td>
<td>2.79</td>
<td>0.91</td>
<td>0.18</td>
<td>0.54</td>
</tr>
<tr>
<td>General Acceptance</td>
<td>379</td>
<td>1-5</td>
<td>2.73</td>
<td>0.89</td>
<td>0.20</td>
<td>0.61</td>
</tr>
<tr>
<td>Individual Difference</td>
<td>379</td>
<td>1-5</td>
<td>2.39</td>
<td>1.09</td>
<td>0.62</td>
<td>0.41</td>
</tr>
<tr>
<td>Usability</td>
<td>379</td>
<td>1-5</td>
<td>3.00</td>
<td>1.22</td>
<td>0.04</td>
<td>0.93</td>
</tr>
<tr>
<td>Practical Effectiveness</td>
<td>379</td>
<td>1-5</td>
<td>3.03</td>
<td>0.92</td>
<td>0.32</td>
<td>0.08</td>
</tr>
<tr>
<td>Coronavirus Anxiety</td>
<td>379</td>
<td>1-5</td>
<td>2.15</td>
<td>1.03</td>
<td>0.74</td>
<td>0.10</td>
</tr>
<tr>
<td>Academic Self-sufficiency</td>
<td>379</td>
<td>1-5</td>
<td>3.87</td>
<td>0.62</td>
<td>0.14</td>
<td>0.06</td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>379</td>
<td>1-5</td>
<td>2.82</td>
<td>0.92</td>
<td>0.05</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Table 2. Examination of the correlations between variables using pearson product-moment correlation analysis.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Online Total</th>
<th>GA</th>
<th>ID</th>
<th>U</th>
<th>PE</th>
<th>U</th>
<th>AS</th>
<th>LS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Acceptance</td>
<td>.878**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual Difference</td>
<td>.921**</td>
<td>.810**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usability</td>
<td>.921**</td>
<td>.741**</td>
<td>.793**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practical Effectiveness</td>
<td>.802**</td>
<td>.568**</td>
<td>.629**</td>
<td>.668**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coronavirus Anxiety</td>
<td>-.082</td>
<td>-.068</td>
<td>-.056</td>
<td>-.094</td>
<td>-.066</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Self-sufficiency</td>
<td>.074</td>
<td>.072</td>
<td>.058</td>
<td>.054</td>
<td>.083</td>
<td>-.118</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Satisfaction</td>
<td>.130†</td>
<td>.165†</td>
<td>.130†</td>
<td>.058</td>
<td>.125</td>
<td>.008</td>
<td>.173**</td>
<td></td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed); *. Correlation is significant at the 0.05 level (2-tailed); GA: General Acceptance, ID: Individual Difference U: Usability, PE: Practical Effectiveness, AS: Academic Self-Sufficiency, LS: Life Satisfaction.
indexes were first examined without any modifications, but it was observed that the model did not meet the required compliance criteria as is ($x^2 = 31.769$, $sd = 11$, $x^2/sd = 2.88$, RMSEA = .071, SRMR = .022, CFI = .98, GFI = .97, NFI = .97, TLI = .96, AGFI = .94). The recommended modifications for the model were then examined and in line with these recommendations, the errors related to the “usability” and “practical effectiveness” items are drawn and associated with the bidirectional covariance and one modification was applied.

Table 3 has been created to make the operations before and after the modification more understandable. As seen in Table 3, post-change fit indices were examined in all aspects and it was checked whether they met the required values. The chi-square value of the model is 13,955 and the degree of freedom is 10. The division chi-Square to the degree of freedom (1,396) results in a value less than 3.00. The GFI (.99) value of the measuring model is within the acceptable range [42,43]. RMSEA and SRMR values with acceptable goodness ranges 0.05 and 0.08 are .032 and .01, respectively. Schermelleh-Engel & Moosbrugger interpreted the SRMR and RMSEA values smaller than 0.05 as a good fit indicator [44]. As an absolute compliance goodness index, it can be stated that the AGFI value (.97) is close to 1 which is an acceptable value. The model’s NFI value (0.98) and complex-regulated CFI (0.99) were also observed to be within the acceptable compliance range [42,43,45].

Table 4 has been created to better understand the parameter estimates and coefficients on behalf of the structural equation model. As seen in Table 4, it was determined that the paths formed by the sub-dimensions of online learning attitude in the tested structural model showed statistical significance ($p < .001$). Also, it was determined that the path with life satisfaction ($p < .05$) was significant, and not significant with academic self-sufficiency and coronavirus anxiety. Total and direct impact values show that academic self-sufficiency ($\beta = .04$) and life satisfaction ($\beta = .13$) directly and positively affect the online learning attitude variable. Coronavirus anxiety ($\beta = -.076$) directly and negatively affects the online learning attitude variable. In the model, the total

**Table 3. Compliance values of the structural equality model**

<table>
<thead>
<tr>
<th>Compliance Index</th>
<th>Acceptable Compliance Index</th>
<th>Perfect Compliance Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x^2$</td>
<td>$0 \leq x^2/df \leq 2$</td>
<td>31.769</td>
</tr>
<tr>
<td>Degree of Freedom (df)</td>
<td>11</td>
<td>13.955</td>
</tr>
<tr>
<td>$x^2$/df</td>
<td>1.5</td>
<td>2.88</td>
</tr>
<tr>
<td>GFI</td>
<td>0.90 $\leq$ GFI $\leq$ 0.95</td>
<td>0.97</td>
</tr>
<tr>
<td>AGFI</td>
<td>0.85 $\leq$ AGFI $\leq$ 0.90</td>
<td>0.97</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.05 $\leq$ SRMR $\leq$ 0.10</td>
<td>0.02</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.05 $\leq$ RMSEA $\leq$ 0.08</td>
<td>0.03</td>
</tr>
<tr>
<td>CFI</td>
<td>0.95 $\leq$ CFI $\leq$ 0.97</td>
<td>0.99</td>
</tr>
<tr>
<td>TLI</td>
<td>0.95 $\leq$ NFI $\leq$ 0.97</td>
<td>0.99</td>
</tr>
<tr>
<td>NFI</td>
<td>0.90 $\leq$ NFI $\leq$ 0.95</td>
<td>0.98</td>
</tr>
</tbody>
</table>

---

**Figure 1.** Path diagram regarding the prediction of online learning attitude

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CORONA

ACADEMIC

LIFE SATISFACTION

ONLINE

CMIN=13,955; DF=10; CMIN/DF=1,396; RMSEA=.032; GFI=.990; CFI=.996; NFI=.967; TLI=.992
The transformation of Covid-19 virus into a pandemic around the world affected education and higher education systems in all countries and led to the use of distance education as a substitute for face-to-face education with the support of governments in order to slow the spread of the disease in educational structures [46]. One past research on distance education demonstrates that students’ attitudes towards distance education were at a near-ambivalent level [47], while some other research [48,49] shows that attitudes towards distance education lead to both positive and negative outcomes. Today, when it is a necessity to keep up with rapidly changing information age, higher education institutions have a very important task of incorporating technology into the educational lives of their students while preparing them for a life of work. With the integration of computer and internet technology into distance education programs, the concept of online learning has emerged. Online learning which provides education to students without space and time constraints effectively manages the process by forming interactions of student-student, student-teacher, student content or student system [50].

While online learning activities were usually carried out on request, coronavirus (COVID-19) pandemic which started around March 2020 has made it mandatory in universities all over the country [51]. Attitudes are predicted to be an important tool in the performance of students [52]. Because any negative performance can be associated with a negative attitude [53]. If the attitude shown is negative and insignificant, the student may have a reduced chance of entering into the learning process [54]. Dhull & Sakshi points out that failure to carefully schedule online learning activities can seriously disrupt the learning process [55]. Therefore, students’ ability to develop time management in the online learning process is an important criterion. As Hung et al. stated, students are required to devote sufficient time to the course, participate in discussions and respond to related messages and establish self-discipline in order to perform the tasks given [56]. In the study conducted by Yaman, it was reported that while the students of the physical education and sports departments thought that distance education was a useful education system, the students of the sports management department had some negative ideas about it [57]. Although online distance education offers flexibility in many respects, it is thought that it is not sufficient in terms of psycho-motor learning, which plays an important role in gaining skills, and that distance education is more suitable for theoretical courses [58].

In the study conducted by Aktaş et al., it was reported that the majority of university students thought their social life was temporarily over during the pandemic [13]. In the study of Yağcıl et al. with students, it was determined that the fear of Covid-19 positively predicted depression, anxiety and stress [59]. Çetin & Anuk states that students’ future concerns and dissatisfactions and death in their families or close circles have been widespread during the pandemic [60]. Duman has revealed that students had moderate levels of fear during the COVID-19 pandemic [61]. Cao et al. found high levels of stress and anxiety among the university students in China [62]. Dikmen stated that although students were found to be moderately depressed, some students were found to have

<table>
<thead>
<tr>
<th>Hidden and Observable Variables</th>
<th>β</th>
<th>B</th>
<th>S.E.</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural Equality Model</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ç -&gt; CA</td>
<td>-0.26</td>
<td>-0.057</td>
<td>0.040</td>
<td>-1.42</td>
<td>0.155</td>
</tr>
<tr>
<td>Ç -&gt; AS</td>
<td>0.040</td>
<td>0.049</td>
<td>0.067</td>
<td>0.740</td>
<td>0.459</td>
</tr>
<tr>
<td>Ç -&gt; LS</td>
<td>0.131</td>
<td>0.110</td>
<td>0.045</td>
<td>2.447</td>
<td>&lt; 0.05</td>
</tr>
<tr>
<td>GA -&gt; Ç</td>
<td>0.865</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ID -&gt; Ç</td>
<td>0.921</td>
<td>1.302</td>
<td>0.054</td>
<td>24.321</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>U -&gt; Ç</td>
<td>0.868</td>
<td>1.37</td>
<td>0.062</td>
<td>22.257</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>PE -&gt; Ç</td>
<td>0.699</td>
<td>0.830</td>
<td>0.053</td>
<td>15.725</td>
<td>&lt; 0.001</td>
</tr>
</tbody>
</table>

very severe symptoms of depression [63]. In a study conducted by Çölgeçen & Çölgeçen where the majority of participants were university students, it is stated that the average anxiety of individuals was above the average constant anxiety, and this was associated with the stressful situations due to the pandemic [64]. Şen & Kızılcakoglu concluded that students were dissatisfied with the distance learning process for reasons such as the boring courses in the distance learning method, the hindrance social life, and the lack of connection established with academicians [65]. Acar et al., examined the anxiety levels of sports science students during the Covid-19 pandemic and found that the students’ anxiety levels were high [66].

Saltürk & Gümüşör state that emotional and physical deprivation affects the academic motivation of students [67]. In addition, they state that not being able to socialize and do physical activities have a predicting role on academic motivation. The current study showed that Covid-19 pandemic lockdowns affect the academic performance of most participants to varying degrees. For the veterinary medical sciences, the main challenges faced by online education are related to the lack of practical courses. Dai, D. & Xia, in their study, stated that the e-learning platform implemented in China with the motto “School is Out, but Class is On” significantly improved the academic performance of students [68]. In addition, Eroğlu et al. has identified a positive and highly significant relationship between students’ academic self-sufficiency scores and academic motivation levels, which are important indicators of the teaching process [69].

Satıcı et al. examined the correlations between Covid-19 fear and life satisfaction, depression, anxiety and stress variables [70]. As a result of that research, it was determined that the fear of Covid-19 negatively affects life satisfaction. Kaçık & Acar reported that the average life satisfaction scores of students were slightly above average [71]. Ekizler states that optimistic (life satisfaction) students who are satisfied, happy and feel useful also have lower overall concerns about COVID-19 [72]. Addressing the need to consciously expand awareness in order to reduce anxiety and increase life satisfaction during the COVID-19 outbreak is important [73,74].

In this research, which created a model for understanding online learning attitudes in students of the faculty of sports sciences, it was understood that coronavirus anxiety has a statistically significant effect on online learning attitudes while academic self-sufficiency and life satisfaction do not have a statistically significant effect. As students’ coronavirus anxiety levels decrease and their academic self-sufficiency and life satisfaction levels increase, their attitudes towards online learning also increase. As in many other institutions of education, university education continues remotely (online). It can be foreseen that the current and future teaching processes will be carried out in the same way. Students’ positive attitude towards online learning and understanding the predictors of this attitude will be a development to be appreciated by all stakeholders of the subject. In this research, it was seen that the attitude towards online learning is significantly predicted by the life satisfaction variable. So, there is a need to increase the life satisfaction levels of the students and to investigate the factors that are thought to have an effect on it. It can also be said that the attitude towards online learning should also be predicted by the variables that are mostly left out in the literature.

**Suggestions:**
To establish a national understanding by conducting this research nationwide,
Using qualitative techniques such as observation and interviewing in a study to be carried out in the same subject,
In a study on online learning attitudes, it may be recommended to consult to family members, instructors and administrative staff who are considered to be influential in the attitudes of students.

**Conflicts of Interest**
The authors declare no conflict of interest.

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