

Examination of Attitudes and Satisfaction Levels Towards E-Learning in Sports

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Abstract— With the advancement of technology in today's world, significant changes have occurred in the field of education, and modern processes such as e-learning have emerged. The main purpose of this research is to examine the attitudes and satisfaction levels of Sports Sciences Faculty students studying at higher education level regarding online learning. The study used the survey model from quantitative methods. The sample consisted of 162 students from the Sports Sciences Faculties of Eskişehir Technical University and Sakarya University during the 2023-2024 academic year. Data was collected through Google Forms over 75 days using three different scales. According to the findings, female students showed higher general e-learning desire, while male students showed higher desire for e-learning in sports. Students aged 23 and above appear more willing in both areas. Sakarya University students' interaction and satisfaction levels are higher compared to other groups. In conclusion, strategies should be developed to increase student satisfaction and interaction between students in e-learning environments.

Index Terms— Distance Education, E-Learning, Sports Sciences, and Student Satisfaction.

I. INTRODUCTION

Developments in information and communication technologies have reshaped social and economic changes, creating the information age [1]. Technology offers people the ability to work and access information without time and space limitations. These developments have also influenced the field of education, leading to the emergence of modern approaches such as e-learning [2]. E-learning is the delivery of instruction in electronic environments and is a component of distance education. Distance education is an institutional activity where students and instructors are in different locations, with education being conducted through communication technologies [3].

Distance education, which began with correspondence courses in the 1840s, has continued its development through radio, television, and internet technologies. Today, it is implemented using various technologies, both synchronously and asynchronously. While providing formal education and certification opportunities, distance education offers both simultaneous and asynchronous education options by providing flexibility in time and space. Along with efficient

resource utilization and planning, this system, which requires students' personal effort and self-discipline, makes goal setting and time management skills crucial for success [4].

Distance education, which has fundamental features such as effective access to information resources, advanced technology use, and time-space independence, plays an important role in education despite challenges like technical infrastructure requirements and lack of face-to-face interaction [5]. It provides a significant alternative particularly for those living in remote regions, individuals with physical disabilities, and those unable to continue formal education.

As a component of distance education, e-learning offers equal educational opportunities to individuals of all ages and professions. E-learning in sports, as an innovative approach complementing traditional education, has the potential to eliminate prejudices in learning and applying sports disciplines [6]. In this context, understanding sports sciences students' attitudes toward and satisfaction levels with e-learning is critical for evaluating and improving the effectiveness of the modern educational approach. Therefore, the purpose of this research is to examine the attitudes and satisfaction levels of Sports Sciences Faculty students studying at higher education level regarding online learning. The study used the survey model from quantitative methods.

II. METHOD

A. Research Model

In this study, which aimed to determine the attitudes and satisfaction levels of Sports Sciences Faculty students studying at higher education level regarding online learning, the survey model from quantitative research methods was used.

B. Population and Sample

The study population consists of undergraduate students from the Sports Sciences Faculties of Eskişehir Technical University and Sakarya University who have taken or are taking their course(s) through distance education during the 2022-2023 academic year. The study sample consists of 162 students who were selected from these students through convenience sampling method and voluntarily participated in the study.

Examining the demographic characteristics, 31 people (19.1%) aged 19-20, 66 people (40.7%) aged 21-22, and 65 people (40.1%) aged 23 and above participated in the study. A total of 162 people participated, with 71 females (43.8%) and 91 males (56.2%). From the Teaching department, 36 people

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(22.2%), from the Recreation department, 58 people (35.8%), from the Coaching department, 20 people (12.3%), and from the Sports Management department, 48 people (29.6%) participated. Participation by year level included 12 first-year students (7.4%), 48 second-year students (29.6%), 42 third-year students (25.9%), 33 fourth-year students (20.4%), and 27 fifth year and above students (16.7%). Regarding employment status of participants, 48 people (29.6%) work full-time, 48 people (29.6%) work part-time, and 66 people (40.7%) are not working.

C. Data Collection Process

In this study, the survey method was used for data collection. Survey questions were entered "Google Forms" and then shared with students via a shareable link over the internet as of 16.03.2024. The survey remained open for data collection for 75 days. The survey was concluded on 30.05.2024.

D. Data Collection Tools

The survey form created within the scope of the research consists of four sections. In the first section, the "General Attitude Scale Towards E-learning" developed by Haznedar and Baran [7], consisting of 2 factors and 20 statements, was used to examine students' attitudes toward online learning.

In the second section of the survey, the "Attitude Scale Towards E-learning in Sports" developed by Mutlu Bozkurt and Tamer [6], consisting of 12 statements in total, was used to examine students' attitudes toward online learning in sports.

In the third section, three dimensions of the "Student Satisfaction Scale in Distance Education" developed by Ilgaz [8] were included in the survey to examine students' satisfaction levels with online learning: "student-student interaction," "student-teacher interaction," and "online courses."

Survey questions used a 5-point Likert scale where 1=Strongly Disagree, 5=Strongly Agree. In the final section, questions were asked to determine students' demographic characteristics.

III. FINDINGS

The research group examined Inter-University Differences in E-Learning Attitudes in Sports, Differences by Gender, and Differences by Age.

When examining the views of the sample group, the findings between Eskisehir Technical University and Sakarya University emerged as follows; inclination towards e-learning was measured higher in Eskisehir Technical University students with a mean of 3.07. In terms of e-learning avoidance, Sakarya University showed a higher finding with a mean of 3.44 compared to Eskisehir Technical University. Regarding attitude towards e-learning in sports, Sakarya University showed a higher finding with a mean of 3.13 compared to Eskisehir Technical University.

TABLE I: FINDINGS RELATED TO INTER-UNIVERSITY DIFFERENCES IN E-LEARNING ATTITUDES IN SPORTS

E-learning in sports	Universities	N	Mean	SD
Inclination towards e-learning	Eskisehir	88	3.07	1.27
	Sakarya	74	3.03	1.24
Avoidance of e-learning	Eskisehir	88	3.38	1.12
	Sakarya	74	3.44	1.05
Attitude towards e-learning in sports	Eskisehir	88	3.05	1.15
	Sakarya	74	3.13	1.22
Satisfaction with student-student interaction in sport e-learning	Eskisehir	88	3.51	1.10
	Sakarya	74	3.62	1.14
Satisfaction with student-teacher interaction in sport e-learning	Eskisehir	88	3.52	1.15
	Sakarya	74	3.71	1.04
Satisfaction with online classes in sport e-learning	Eskisehir	88	3.50	1.12
	Sakarya	74	3.62	1.01

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Looking at satisfaction with student-student interaction in sports e-learning, Sakarya University showed a higher finding with a mean of 3.62 compared to Eskisehir Technical University. Regarding satisfaction with student-teacher interaction in sports e-learning, again Sakarya University showed a higher result with a mean of 3.71 compared to Eskisehir Technical University. When measuring satisfaction levels with online classes in sports e-learning, a higher finding was obtained at Sakarya University with a mean of 3.62.

TABLE II: FINDINGS RELATED TO GENDER DIFFERENCES IN E-LEARNING ATTITUDES IN SPORTS

E-learning in sports	Gender	N	Mean	SD
Inclination towards e-learning	Female	71	3.13	1.36
	Male	91	2.95	1.10
	Female	71	3.19	1.11
Avoidance of e-learning	Male	91	3.58	1.04
	Female	71	3.00	1.10
Attitude towards e-learning in sports	Male	91	3.17	1.23
	Female	71	3.44	1.12
Satisfaction with student-student interaction in sport e-learning	Male	91	3.66	1.11
	Female	71	3.49	1.08
Satisfaction with student-teacher interaction in sport e-learning	Male	91	3.70	1.12
	Female	71	3.41	.99
Satisfaction with online classes in sport e-learning	Male	91	3.67	1.11

The findings related to gender differences in attitudes towards e-learning in sports are shown in Table 2. The statistical data of 71 female and 91 male students were examined in the research. According to gender, the level of inclination towards e-learning was found to be higher in females with a mean of 3.13 compared to males. In terms of

e-learning avoidance, males showed a tendency to avoid e-learning with a higher mean of 3.58 compared to females.

Looking at attitudes towards e-learning in sports, males showed a higher result with a mean of 3.17 compared to females, indicating that their tendency towards e-learning in sports was higher.

When examining satisfaction levels with e-learning in sports, male participants were found to be more satisfied with student-student interaction with a mean of 3.66 compared to females, and in terms of student-teacher interaction satisfaction level, males again showed a more satisfied picture with a mean of 3.70. Finally, regarding satisfaction with online classes, male participants achieved higher results with a mean of 3.67 compared to female participants.

TABLE III: FINDINGS RELATED TO AGE DIFFERENCES IN E-LEARNING ATTITUDES IN SPORTS

E-learning in sports	Gender	N	Mean	SD
Inclination towards e-learning	19-20	31	3.09	1.32
	21-22	66	2.79	1.21
	23 ≤	65	3.30	1.22
Avoidance of e-learning	19-20	31	3.40	1.12
	21-22	66	3.41	1.06
	23 ≤	65	3.41	1.11
Attitude towards e-learning in sports	19-20	31	3.08	1.27
	21-22	66	2.91	1.17
	23 ≤	65	3.27	1.13
Satisfaction with student-student interaction in sport e-learning	19-20	31	3.54	1.16
	21-22	66	3.22	1.17
	23 ≤	65	3.92	.92
Satisfaction with student-teacher interaction in sport e-learning	19-20	31	3.61	1.13
	21-22	66	3.28	1.16
	23 ≤	65	3.94	.94
Satisfaction with online classes in sport e-learning	19-20	31	3.61	1.14
	21-22	66	3.14	1.07
	23 ≤	65	3.95	.87

The analysis of results related to age differences in attitudes towards e-learning in sports among research participants is shown in Table 4. The statistical data of 31 people aged 19-20, 66 people aged 21-22, and 65 people aged 23 and above were examined in the research. According to these results, the level of inclination towards e-learning was found to be highest in the 23 and above age group with a mean of 3.30. Individuals in the 19-20 age range ranked second with a mean of 3.09. Finally, the 21-22 age group's level of inclination towards e-learning was found to be lowest with a mean of 2.79.

Similar results emerge in the ranking of e-learning avoidance levels by age ranges. The 21-22 age group and 23 and above age group showed the same result with the highest mean of 3.41. This mean was followed by individuals in the 19-20 age group with 3.40. When examining the levels of attitude towards e-learning in sports across age groups, the 23 and above age group ranked highest with a mean of 3.27, followed by the 19-20 age group in second place with a mean of 3.08, and the 21-22 age group ranked lowest with a mean of 2.91.

Satisfaction with student-student interaction in sports e-learning was found highest in the 23 and above age group

with a mean of 3.92. This group was followed by the 19-20 age group with a mean of 3.54. The 21-22 age group ranked last with a mean of 3.22.

Regarding satisfaction levels with student-teacher interaction in sports e-learning, the 23 and above age group had the highest mean with 3.94, followed by the 19-20 age group in second place with a mean of 3.61, and the 21-22 age group was found to have the lowest mean with 3.28. The distribution of satisfaction levels with online classes in sports e-learning according to age is as follows: the 23 and above age group ranked first with a mean of 3.95, the 19-20 age group ranked second with a mean of 3.61, and individuals in the 21-22 age group ranked third with a mean of 3.14.

IV. CONCLUSION

A survey was conducted with 162 students to determine the e-learning perspectives of Sports Sciences students at Eskişehir Technical University and Sakarya University. The results are as follows:

Female students were found to be more willing in general e-learning, while male students were more enthusiastic about e-learning in sports. Males were also more satisfied with e-learning interactions in sports.

Although gender does not significantly affect e-learning in the literature, males show higher interest in sports. In our research, males showed lower averages in general e-learning but higher averages in sports e-learning.

Students over 23 years of age are more willing to engage in e-learning. The fact that the majority are working indicates that the flexible structure of distance education is more suitable for this age group.

Eskişehir Technical University students are more willing in general e-learning, while Sakarya University students are more willing in sports e-learning. Student-student and student-teacher interactions, as well as online class satisfaction, are higher at Sakarya. To increase student satisfaction, entertainment, convenience, and flexibility elements should be enhanced, peer communication should be strengthened, and online breaks should be planned.

Çataloğlu et al. [9] indicated that interactive education would increase success. As virtual classrooms are seen to provide interaction close to the real environment, practice hours should be increased. More effective instruction can be designed using student satisfaction, teaching performance, and content evaluation surveys.

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