Online Learning: Its Effects on the Quality of Learning of the Golf Major in Jilin Sports University

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Abstract: *This paper examines the effects of online learning on the quality of learning for golf majors at Jilin Sports University. The study aimed to understand students' online learning experiences and their satisfaction with online golf courses. Conducted through a questionnaire survey, the research included all 190 golf major students at the university. The analysis revealed that students generally had positive experiences with the online golf courses, with a mean satisfaction rating of 3.03 out of 4. The courses were found to be effective and conducive to learning, especially in terms of content timeliness, depth of understanding, and various aspects of teaching and learning support. However, there is room for improvement in providing adequate practice opportunities, which is crucial for golf education. The study also found a positive correlation between students' online learning experiences and their satisfaction with the courses. By addressing the identified weaknesses and leveraging the existing strengths, Jilin Sports University can further enhance the online learning environment for golf majors. Overall, this research contributes to the understanding of online learning in golf education and provides insights for educational reform and innovation in the field.*

Keywords: *Online learning, Learning experiences, Golf major*

1. Introduction

At present, in the field of educational technology, many scholars have conducted in-depth research on online teaching, especially in the context of global public health emergencies. Innovative models of online teaching have attracted much attention as effective strategies to cope with educational interruptions. However, there is still insufficient research on online teaching in physical education, especially for special sports such as golf that require practical guidance and skill development. Although there have been studies exploring the feasibility of online golf teaching, these studies mainly focus on the imparting of theoretical knowledge or the display of basic skills. There are still significant research gaps on how to ensure the effectiveness and safety of online teaching, as well as how to achieve full interaction and personalized guidance between teachers and students.

In response to this situation, this study aims to fill a specific gap in the field of online golf teaching. This study not only focuses on imparting knowledge and showcasing skills, but also delves into how to build an efficient, safe, and interactive golf teaching model in an online environment. Compared with previous studies, the uniqueness of this research lies in its emphasis on combining the actual situation of our school, including student characteristics, teaching resources, technical conditions, etc., in order to develop a set of golf online teaching strategies that are more in line with the actual situation of our school, can effectively improve teaching quality and student learning experience.

Through this study, the author hopes to provide practical guidance and theoretical support for the online transformation of golf and even broader physical education and promote the development and innovation of physical education in the information age.

2. Objectives of the Study

The primary objective of the research is to investigate the experiences and satisfaction levels of golf major students at Jilin Sports University with online learning. The population for this study includes students enrolled in the golf major at Jilin Sports University. Inclusion criteria ensure that only students who have undergone online learning as part of their golf major coursework are considered. A questionnaire is designed specifically for this study to capture students' experiences and satisfaction

levels with online learning. The questionnaire covers various aspects of online learning, including ease of use of the course platform, video playback quality, interaction with classmates and teachers, course structure, content engagement, teaching strategies, learning efficiency, motivation, resource availability, collaborative work, access to teachers beyond school hours, and timely feedback from teachers. The questionnaire is administered to the selected population, and responses are collected for analysis. To ensure the quality and reliability of the data, measures such as pilot testing and validation of the questionnaire are taken. Additionally, the research adheres to ethical considerations, including informed consent, confidentiality, and anonymity of participants. The collected data are then analyzed using appropriate statistical methods to identify patterns, trends, and correlations between students' online learning experiences and their satisfaction levels. The analysis aims to provide insights into the effectiveness of online learning for golf major students at Jilin Sports University and identify areas for improvement.

3. Results and Discussion

This section discusses the results and analysis of the investigation and the corresponding interpretations.

Table 1: Likelihood of the Experiences in Online Learning of the Students Majoring in Golf in Jilin Sports University.

Question	Mean	SD	DI
I am able to use the course platform very easily.	3.02	0.99	Likely
I am able to watch the video playback very smoothly.	3.08	0.95	Likely
I can effectively interact with my classmates through the platform.	3.25	0.98	Likely
I can effectively interact with my teachers through the platform.	3.21	0.96	Likely
I find it easy to follow the course structure.	3.1	0.97	Likely
I find the content very engaging.	3.17	0.9	Likely
I find the content very interesting.	3.15	0.96	Likely
I find the teacher's online teaching strategy engaging.	2.99	0.96	Likely
I find the teacher's online teaching strategy interesting.	3.04	0.9	Likely
I can efficiently learn online.	3.13	0.87	Likely
I am very much motivated to learn.	3.11	0.88	Likely
I find sufficient resources for learning.	3.3	0.82	Likely
I can efficiently engage in collaborative work.	3.07	0.83	Likely
I can easily reach out to my teachers beyond school hours.	3.15	0.8	Likely
I receive timely feedback from my teachers.	3.33	0.76	Very Likely
OVERALL	3.14	0.59	Likely

Within the range of 3.26 to 4.00, is labeled as "Very Likely," indicating that the student fully experiences the situation being assessed. This suggests a high level of engagement, satisfaction, or frequency of occurrence in relation to the online golf courses. Falling within 2.51 to 3.25, is categorized as "Likely," signifying that the student experiences the situation most of the time. This implies a moderate to high degree of involvement or positive encounter with the online golf courses, though not to the fullest extent as in the "Very Likely" category. The range of 1.76 to 2.50 corresponds to a value of 2, labeled "Rarely Likely." This suggests that the student only sometimes experiences the situation being evaluated, indicating a lower level of engagement or encounter with the online golf courses. Lastly, within the range of 1.00 to 1.75, is designated as "Not Likely," meaning that the student does not experience the situation at all. This reflects a minimal or non-existent involvement with the online golf courses, suggesting a lack of engagement or perhaps dissatisfaction with the online learning format.

As shown in Table 1, the overall mean score of 3.14 indicates that students generally have a positive experience with the course platform. The majority of the questions received mean scores above 2.51, which suggests that students find the platform easy to use, the content engaging, and the teaching strategies interesting. The standard deviation of 0.59, indicates that there is some variation in the responses, but the majority of the scores are concentrated around the mean.

The course platform has several notable strengths that contribute significantly to the positive learning experience of students. The following are the most prominent:

The two highest values, with means exceeding 3.26 and thus labeled as "Very Likely," are "I receive timely feedback from my teachers" (3.33) and "I find sufficient resources for learning" (3.3). These high

scores suggest that students fully experience these aspects of online learning, indicating a high level of engagement, satisfaction, and frequency of occurrence. The timely feedback from teachers likely fosters a sense of accountability and progress, experts pointed out that feedback mechanisms ensure that students receive relevant guidance throughout their learning journey (Chen, 2024) [1]，while the availability of sufficient resources ensures that students have the necessary materials to effectively learn and engage with the course content. Experts also point out that sufficient learning resources are crucial for supporting independent research and exploration (Zhao, 2021) [2]. The attractiveness of the learning content is also very high, with a score of 3.17 out of 4, indicating that students are very satisfied with this aspect of the platform. And this is also related to the smoothness of the video, as emphasized in the research, smooth video playback is crucial for attracting online learners, especially on golf courses where visual presentations are essential (Sun, 2024) [3].

Despite the platform's strengths, there are also areas that require improvement:

The two lowest values, falling within the "Likely" category but closer to its lower bound, are "I find the teacher's online teaching strategy engaging" (2.99) and "I am able to use the course platform very easily" (3.02). While still indicating that students experience these situations most of the time, the scores suggest a moderate to high degree of involvement but not to the fullest extent compared to the "Very Likely" category. This may indicate room for improvement in the online teaching strategies employed by teachers and the user-friendliness of the course platform. For example，teachers need to use more platforms during class and develop different teaching strategies based on the advantages of different platforms, so that students can better integrate into the learning process and enhance their interest in teaching content. As experts have pointed out, integrating more real-time communication tools and personalized interactive experiences can improve students' course experience (Chen, 2024) [1] .According to the questionnaire, there are also shortcomings in the usability of the course platform, which may require targeted training for students and teachers in advance to help them become more proficient in using the teaching platform, as well as providing more support resources to promote smooth collaboration. Platform designers and teachers need to strengthen communication with students (Mazlan et al., 2021) [4]. Enhancing the engagement of teaching strategies and ensuring seamless navigation of the platform could further boost students' satisfaction and learning outcomes.

Overall, students generally have a "Likely" experience with online golf courses, signifying a moderate to high degree of involvement and positive encounter. However, there is still significant room for improvement in the attractiveness of teacher strategies and the ease of use of course platforms.

To enhance the overall learning experience, the university should:

Maintain and further enhance the strong points of the platform, such as video quality and resource availability. Address the weaknesses by integrating more interactive features and real-time communication tools, as well as providing targeted training and support for collaborative work.

Table 2: The satisfaction with the online golf courses at Jilin Sports University

Question	Mean	SD	DI
The video quality in the online course platform	3.05	1.01	Satisfied
The effectiveness of the online course	3.04	0.99	Satisfied
The quality of online teaching	3	0.99	Satisfied
The quality of learning experiences	3.04	1.02	Satisfied
The technicalities affecting learning	2.98	0.96	Satisfied
The provision of opportunities for practice	2.95	0.97	Satisfied
The quality of assessments	3.07	0.93	Satisfied
The timeliness of the course content	3.13	0.9	Satisfied
The learning support services provided by the online course platform	3.07	1.02	Satisfied
The practicality of the online course learning schedule	3.07	0.94	Satisfied
The quality of interaction with my classmates	3.01	0.99	Satisfied
Deeper understanding of golf after completing the online course	3.16	0.9	Satisfied
The adequacy of the opportunities for practice	2.87	1.07	Satisfied
The opportunity for self-learning	3.05	0.95	Satisfied
OVERALL	3.03	0.6	Satisfied

For a value within the range of 3.26 to 4.00, students are classified as "Very Satisfied." This indicates that their learning expectations are fully met, signifying a high level of contentment and satisfaction with the online golf courses. It suggests that the courses effectively deliver the educational objectives and meet or exceed the students' expectations. Falling within the range of 2.51 to 3.25, students are deemed

"Satisfied." This implies that their learning expectations are met most of the time, indicating a moderate to high level of satisfaction. While not quite as comprehensive as the "Very Satisfied" category, it still suggests a positive overall experience with the online golf courses. The range of 1.76 to 2.50 corresponds to a dissatisfaction level, with a descriptive equivalent of "Dissatisfied." This indicates that students' learning expectations are not met most of the time, revealing a lower level of satisfaction with the online golf courses. It may suggest areas for improvement in the courses' delivery, content, or format. Lastly, within the range of 1.00 to 1.75, students are classified as "Very Dissatisfied." This signifies that their learning expectations are not met at all, reflecting a significant lack of satisfaction with the online golf courses. It highlights the need for substantial changes or enhancements to the courses to better align with students' learning needs and expectations.

As shown in Table 2, the overall satisfaction rating for the online golf courses at Jilin Sports University is "Satisfied," with a mean score of 3.03. This indicates that students generally had positive experiences with the courses, finding them effective and conducive to learning. The relatively low standard deviation across most aspects suggests a consistent level of satisfaction among students.

Among the various aspects evaluated, two standouts emerge as the highest-rated: "The timeliness of the course content" with a mean of 3.13, suggesting that students appreciate the up-to-date nature of the course materials, which likely contributes to their engagement and learning outcomes. Yan et al.(2024) [5] emphasize the importance of using reliable learning data to meet students' different needs. Only constantly updated content can ensure authenticity and accuracy, providing students with the best learning outcomes. Additionally, "Deeper understanding of golf after completing the online course" scores 3.16, highlighting the effectiveness of the course in fostering a profound comprehension of the sport, online courses can indeed enable students to acquire necessary professional knowledge and gain a deeper understanding of golf as a sport，likely due to the quality of instruction and the relevance of the content. It is also very important to classify teaching according to students' different learning progress in the teaching process, which can help students better understand the learning content. Chu (2024) [6] suggests layered teaching to meet the needs of students with different levels of abilities.

On the other hand, two areas receive relatively lower ratings: "The provision of opportunities for practice" and "The adequacy of the opportunities for practice," both scoring 2.95 and 2.87 respectively. These findings indicate that students perceive a lack of sufficient practical opportunities within the online format, emphasizing the importance of hands-on experience in golf learning. In order to provide more practical opportunities, the curriculum can design more practical activities and case studies to deepen students' understanding and mastery of golf through practice. The limitation of online platforms in replicating the physical aspects of golf practice may have contributed to this sentiment, suggesting a need for innovative solutions, such as virtual reality simulations or partnerships with local golf facilities, to enhance practical learning experiences.

In summary, the online golf courses at Jilin Sports University have achieved a satisfactory level of overall satisfaction, with strengths in content timeliness, depth of understanding, and various aspects of teaching and learning support. However, there is room for improvement in providing adequate practice opportunities, which is crucial for skill development and mastery of the sport. To enhance the overall learning satisfaction, the university should:

Exhibit strengths in content timeliness, fostering a deeper understanding of golf, and comprehensive learning support services, which should be continued and further developed. The university should prioritize innovative solutions to enhance practical learning experiences within the online format.

Based on the statistical results obtained from the analysis of online golf courses at Jilin Sports University, a notable relationship emerges between students' experiences in online learning and their level of satisfaction with the course. The Spearman correlation coefficient of 0.399, which is statistically significant at the 0.01 level, suggests a moderate positive association between these two factors. This finding implies that as students' online learning experiences improve, their satisfaction with the course also tends to increase.

Strengths:

High-Quality Video Content: The strong correlation between positive online learning experiences and satisfaction highlights the importance of high-quality video content. The timely updates and relevance of the course content also play a crucial role in maintaining student engagement and satisfaction.

Effective Interaction and Collaboration: The platform's ability to facilitate effective interaction between students and their peers and teachers is another key strength. This interactive environment not

only enhances the learning process but also fosters a sense of community, which is essential for maintaining student motivation and satisfaction in an online setting.

Adequate Learning Resources: The availability of sufficient learning resources is another critical factor contributing to student satisfaction. Students appreciate having access to a wide range of materials that support their learning and enable them to explore the subject matter more deeply.

Weaknesses and Suggested Improvements:

Limited Practice Opportunities: Despite the overall satisfaction with the online golf courses, students expressed a desire for more practical opportunities. The current online format may not adequately replicate the hands-on experience necessary for skill development in golf.

Need for Enhanced Teaching Strategies: While students generally find the teaching strategies employed by their teachers to be satisfactory, there is still room for improvement. Teachers could further enhance their online teaching approaches by incorporating more interactive and engaging elements, such as real-time polls, discussions, and group projects.

Platform Usability: Although students reported being able to use the course platform easily most of the time, some challenges were identified.

Analysis shows that the Spearman rank correlation coefficient between questionnaire A and questionnaire B is as high as 1.000, indicating a complete positive correlation between the two. At the same time, the p-value of the significance (two tailed) test is 0.000, further confirming the statistical significance of this relationship, that is, it is almost impossible for this relationship to occur due to accidental factors in statistics. Therefore, the better the learning experience of students, the higher their satisfaction with online courses.

In conclusion, the positive correlation between students' online learning experiences and their satisfaction with golf courses at Jilin Sports University underscores the importance of continuously improving the online learning environment. By addressing the identified weaknesses and leveraging the existing strengths, the university can further enhance student satisfaction and outcomes in its online golf courses.

4. Conclusions

Through the analysis of the above data, it can be concluded that there are following conclusions in the online courses of golf major at Jilin Sports University:

1) Positive correlation between student experience and satisfaction: According to statistical analysis, there is a moderate positive correlation between the improvement of students' online learning experience and their satisfaction with the course. This indicates that providing a higher quality online learning experience can directly enhance student satisfaction.

2) High quality video content is crucial: the smooth playback and attractiveness of video content have a significant impact on students' overall learning experience. Meanwhile, the timeliness and relevance of the content are also crucial for maintaining student engagement and satisfaction.

3) Interaction and Adequate Resources Enhance Experience: Effective interaction between students and teachers, as well as sufficient learning resources, have been proven to be key factors in enhancing online learning experience and satisfaction.

4) Limited practical opportunities for improvement: Although students are generally satisfied with online golf courses, they have expressed a desire for more practical opportunities. The current online format has limitations in replicating the hands-on practice required for golf skill development.

5. Recommendations

1) Continuously optimizing online learning platforms

Given the positive correlation between student experience and satisfaction, universities should continuously invest in improving online learning platforms to ensure continuous optimization of user friendliness, video quality, and interactive functionality.

2) Enriching video content and update frequency

Teachers should regularly update course content to maintain its timeliness, and focus on improving the attractiveness and teaching quality of videos, thereby enhancing students' online learning experience.

3) Strengthening interaction and provide sufficient resources

Students' learning needs should be met and their satisfaction should be enhanced by adding real-time interactive tools, discussion sections, and group collaboration projects, as well as providing rich and diverse learning resources.

4) Innovative practice opportunities to make up for deficiencies

Universities should explore integrating virtual reality technology, augmented reality technology, or offline practice into online courses to provide more opportunities for golf practice, address the shortcomings of current online courses in practice, and thereby enhance students' overall satisfaction with the courses.

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