

Impact of the Students Satisfaction to Their Interest in Roller Skating

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Abstract: This study is based on classroom satisfaction and students' roller skating course learning interest, laying a foundation for improving students' roller skating course learning quality. The results show that students' learning satisfaction and roller skating course learning interest in classroom learning have been improved, which has improved the learning quality of roller skating courses. Through descriptive correlation design and SPSS analysis of data from 300 students, it was found that students' roller skating interests in high-level dimensions, including self-flexibility; Roller skating skills and fundamentals; personal interest; Parents; Teachers; Facilities; Roller skating course and roller skating course satisfaction Learning content; Learning resources and activities; Learning task Implementation, etc. In order to improve students' classroom satisfaction and roller skating course learning interest, teachers should take relevant measures in teaching, such as not considering sex, age, as the main factors for evaluating students' learning interest and satisfaction, emphasizing the actual content of course design and teachers' organizational means, helping students build interest, and strengthening the development quality of roller skating courses.

Keywords: Satisfaction; Roller Skating; Interest; Influence.

1. Introduction

Roller skating is a sport, also known as skateboarding or roller skating. It is the installation of pulleys on specially designed skateboards, roller skates or inline skates, and the movement of various tricks and movements by pushing the feet. Roller skating can include skateboard, roller skating, racing pulley, skateboard and other forms. Roller skating can be practiced by individual or group students because it is entertaining and interesting in terms of speed or technique. I am very lucky to be both a speed roller skater and a teacher of Shandong Physical Education College of China Roller Skating College. Therefore, I know that whether it is a leisure sport or a small competition held between friends and classmates, through roller skating, people can be relieved from the usual tension and heavy study and work, and do some activities appropriately, so as to achieve the purpose of physical and mental relaxation. At the same time, roller skating is a systemic sport, which can promote the improvement of cardiovascular and cerebrovascular system and respiratory system functions, strengthen metabolism, such as promoting the improvement of cardiovascular and cerebrovascular system and respiratory system functions and metabolism, and can enhance the strength of arms, legs, waist, abdomen and other muscles and the flexibility of body joints. In particular, it is of great help to people's balance and coordination ability. At the same time, roller skating is also a healthy aerobic exercise, generally speaking, the maximum oxygen consumption of roller skating (the benchmark for measuring exercise intensity) is 90% of running, and maintaining the optimal aerobic exercise intensity is very effective in maintaining a speed of 23km/hr, and the heart rate measured by roller skating is 74% of the maximum heart rate. This is a typical aerobic exercise, which can achieve the effect of strengthening the cardiovascular and burning fat. Therefore, more and more children use roller skating as a sport to improve body shape, weight loss and fitness. As an

international judge of speed roller skating, I know that roller skating also takes into account the characteristics of environmental protection, tools, safety, economy and enjoyment, and is widely loved by students. For students, the interest in roller skating is the best teacher, and it is a powerful motivation for students to learn independently, think positively, ask questions boldly, and dare to explore. When I was a referee of the speed skating event of the World University Games, I understood that the satisfaction of roller skating is a kind of psychological state in the learning process of students, and good satisfaction is the most powerful expression of roller skating learning. It is necessary to investigate the interest and satisfaction of roller skating among college students. First, it can help us know whether college students take part in roller skating. This can help us see the development of roller skating in colleges and universities, and provide basic data support for us to explore the interest and satisfaction of college students in roller skating. The main purpose of this study is to understand the interest and satisfaction of college students. These factors may include personal preferences, the teaching ability of the school, the perfection of the school facilities, the social status of the discipline, and the influence of roller skating culture. This research can help to understand and identify gaps and barriers that hinder the growth and development of roller skating as a popular sport. The purpose of this study is to provide valuable information that can be used to develop rollerskating promotion plans. By exploring college students' interest in and satisfaction with roller skating, it is easier to develop strategies to encourage more students to participate in the activity. Programs can be developed to understand contemporary student satisfaction with roller skating, address cultural barriers to roller skating, or address any other factors that may be holding roller skating back. Overall, studying college students' interest in and satisfaction with roller skating is critical to understanding the reasons behind the sport's popularity and identifying strategies to increase participation.

The findings of this study could inform the development of outreach programs and help address any barriers to college students participating in this exciting sport while promoting roller skating.

Roller skating as a new sport, its development must have power, and this power comes from the pursuit of students. Students are one of the main groups that learn roller skating in the largest number. Their preferences and pursuits often directly affect the development of roller skating. Therefore, it is necessary to explore the interest and satisfaction of college students in roller skating. Through the investigation of students' interest and satisfaction in learning roller skating, this paper understands the reasons for the teaching of roller skating, puts forward opinions on the problems existing in the development of roller skating, and puts forward methods and suggestions for the promotion of roller skating, so as to provide help for the future development. Roller skating as a sport has become more and more popular around the world in recent years. However, despite the wide spread of roller skating across the globe, in some regions, it still needs more attention and attention. Therefore, it is of great practical significance to explore the interest and satisfaction of college students in roller skating, which can provide reference for the formulation of relevant promotion programs. At present, the opening rate of the national roller skating course is not optimistic. In spite of this, it has gradually become a popular course in college physical education, and shows a good trend of development. At present, many students who learn roller skating in ordinary colleges and universities do not have a deep understanding of roller skating, and there is a large difference in interest and satisfaction. The reasons for this lack of understanding are: parents' recognition of roller skating is slightly weak compared with other sports, and students' understanding of roller skating is little. The reasons for the large difference between interest and satisfaction include: single curriculum, shortage of facilities and hardware, and insufficient teaching by teachers to attract students' attention. These elements hinder the development and popularity of roller skating in China.

2. Statement of the Problem

This study aims to examine the college students' interest and satisfaction with roller skating as a physical education course, and propose a promotion plan that will attract students to enroll and engage in this class.

Specifically, the study shall seek answers to the following questions:

- (1) What is the profile of the respondents in terms of:
 - 1) Sex; and
 - 2) Age
- (2) What is the respondents level of interest on roller skating as a physical education course in term of
 - 1) internal factors; and
 - ① self-flexibility
 - ② Roller skating skills and fundamentals
 - ③ personal interest
 - 2) external factors
 - ① Parents
 - ② Teachers
 - ③ Facilities
 - ④ Roller skating course
- (3) Is there a significant difference between the respondents' level of interest on roller skating when their profile is used as

a test factor?

(4) What is the respondents level of satisfaction on roller skating as a physical education course in terms of:

- 1) Learning content;
- 2) Learning activities; and
- 3) Learning assessment

(5) Is there a significant difference between the respondents' level of satisfaction when their profile is used as a test factor?

(6) Is there a significant impact on the level of satisfaction on the interest of respondents in roller skating?

(7) What promotion plan may be proposed based on the research results?

3. Scope and Limitation

The research scope of this project is 300 students from Shanghai Sport University, Shandong Sport University and Tianjin Vocational and Technical College, three universities offering roller skating courses. We sent 300 questionnaires to the students, including sex, age and other basic information investigation, to explore the investigation of students' interest in roller skating into two levels, internal factors and external factors. The investigation into students' satisfaction with roller skating can be divided into two perspectives: curriculum and guidance. Through the exploration of these two dimensions, we can fully understand the interest and satisfaction of students in roller skating, and understand the development and future planning of roller skating in universities.

At the same time, the limitation of this project is that we only investigated 300 students from 3 universities, which is relatively small in scope and quantity, so this research needs more in-depth development and investigation. This research paper is for academic purposes only. In addition, the researcher will use the questionnaire to collect primary data and information concerning the privacy of the respondents and will keep the questionnaire confidential.

4. Methodology

4.1. Research Design

This study will employ descriptive research methods specifically for researchers to gather information on the current prevalence of their chosen field of study. Xue, et al. (2023) argue that descriptive survey research is a way to describe and explain the current situation of "what is". It clarifies conditions that exist or do not exist, practices that are popular or not, beliefs, opinions, or attitudes held or maintained, ongoing processes, felt effects, and emerging trends. Using this research method, researchers obtain the necessary data and have a comprehensive picture of the study.

Descriptive research is a detailed description and analysis of roller skating, including its teaching, interest, satisfaction and other aspects. The purpose of this research is to comprehensively understand all aspects of roller skating activities and provide basis and reference for subsequent research and practice.

The questionnaire combined with Professor Xu 's feasibility analysis, and designed the whole roller skating interest and satisfaction questionnaire.

Prediction research is to analyze and predict the development trend, influencing factors and future development direction of roller skating interest, and guide relevant policy formulation and practical activities. It can help teachers and students better plan and layout the development

direction of roller skating, and promote the long-term stability and sustainable development of roller skating.

Comparative study is to compare and analyze roller skating with other sports, and discuss the characteristics, advantages and disadvantages of roller skating, as well as the correlation and difference with other sports. This kind of research helps to understand the status and role of roller skating in the whole sport, and provides reference and inspiration for the promotion and development of roller skating in the field of sports.

4.2. Sampling Method

The respondents in this study came from 3 sports universities that offer roller skating courses. The researchers used a sampling method to sample 300 respondents for this study. According to the random principle, some units are selected from the whole as investigation samples.

The sampling method adopts the sampling method proposed by Professor Xue, et al. (2023) from the Department of Physical Education of Northeastern University. Part of the data is extracted from multiple populations and analyzed and concluded through data fusion calculation. In this paper, Sample size calculator was used for data analysis. The total Population Size was 1350 people, Confidence Level was 95%, error range was 5%, and the total Ideal Sample Size was 300 people. The researcher selected three universities with 100 students from each school, a total of 300 students. Conduct questionnaire distribution.

Random sampling is the basic form of sampling inspection. It is characterized by the fact that the probability of each unit being selected is the same for the population, and is entirely a random factor determined by the combined action of many people. Human subjective initiative.

4.3. Research Instrument

The main tool to be used in the study is a questionnaire. This research adopts the form of self-designed questionnaire, combines the viewpoints of various literatures and researches, and then collects the target respondents. This questionnaire takes roller skating as a physical education course to investigate students' interest and satisfaction, and the obtained survey information is a practical tool.

This questionnaire consists of three parts. The first part is a brief introduction to the students, including name, gender and age. The second part is the interest research of roller skating course. The third part is the satisfaction study of roller skating as a course.

Two research tools will be used in this study. One is the questionnaire star survey website, which focuses on information research and summary in China. Its Web site is <https://www.wjx.cn/>, and it can help studies get the information they need from their subjects. The second is spss software, were data collected are statistically analyzed. The results provide important data support for the study.

5. Results and Discussion

Table 1. The profile of participants

		Frequency	Percentage
Sex	male	181	60.3
	female	119	39.7
	Total	300	100.0
Age	freshmen	142	47.2
	sophomores	68	22.7
	juniors	63	21.1
	seniors	27	9.0
	Total	300	100.0

Table 2. The assessment of self-flexibility

	Mean	SD	Descriptive	Interpretation	Rank
1.I am satisfied with my flexibility	3.35	0.64	Agree	Interested	4
2.I am happy with my balance	3.26	0.70	Agree	Interested	5
3.I can get over the fear of putting on roller skates	3.55	0.56	Strongly Agree	Very interested	1
4.I can put on my roller skates and spin around easily	3.13	0.86	Agree	Interested	7
5.I can relax or feel happy while roller skating	3.51	0.59	Strongly Agree	Very interested	2
6.I can control the speed and control of roller skating	3.24	0.76	Agree	Interested	6
7.I can overcome the fear and insecurity of roller skating	3.40	0.68	Agree	Interested	3
Over-all	3.35	0.27	Agree	Interested	

Legend: 3.51– 4.00 Strongly Agree/Very interested 2.51 – 3.50 Agree/Interested 2.51 – 3.50 Disagree/Less Interested 1.00 – 1.50 Strongly Disagree/Not Interested.

In Table 1, from the sex distribution, there are 181 male participants, accounting for 60.3% of the total number, and 119 female participants, accounting for 39.7% of the total number. It can be seen that the number of male participants is significantly greater than that of female participants. From the grade distribution, the participants are mainly concentrated in the four grades of freshman to senior year. There are 142 freshmen, accounting for 47.2% of the total number, which is close to half, indicating that freshmen are the main participant group of this study. There are 68 sophomores, accounting for

22.7% of the total number; there are 63 juniors, accounting for 21.1% of the total number; there are 27 seniors, accounting for 9.0% of the total number. It can be seen that the number of freshmen is the largest, followed by sophomores and juniors, and the number of seniors is the least. In summary, the participants in this study are more male than female in terms of gender distribution, and the largest number of freshmen is in the grade distribution, and the smallest number of seniors is in the grade distribution. These data help to understand the basic characteristics of the participants and

provide important background information for subsequent research and analysis. This distribution reflects the design of the study and the participant recruitment strategy, and is also related to the time schedule and academic pressure of students in different grades. By analyzing these data, we can better understand the scope and representativeness of the research results and provide a basis for further research.

In Table 2, the overall mean is 3.35, the standard deviation is 0.27, and the descriptive score is "interested". The highest scoring is "I can get over the fear of putting on roller skates", with a mean of 3.55, a standard deviation of 0.56, and a descriptive score of "very interested". The lowest-scoring option is "I can easily spin in skates", with a mean of 3.13, a standard deviation of 0.86, and a descriptive score of "interested". This means that the subjects scored high on their psychological ability to overcome skating activities (such as overcoming fear and feeling happy), indicating that they showed high self-confidence in psychological preparation and emotional control. However, the evaluation of actual operation skills (such as easy spinning) was relatively low, indicating that there was a certain challenge in the specific technical execution. The trainees showed positive psychological adaptability, but their technical proficiency needed to be improved. This difference suggests that in future roller skating teaching or training, in addition to continuing to strengthen psychological counseling and emotional management, it is also necessary to focus on improving the training intensity and skill guidance of actual technical operations, and improving overall flexibility and technical control.

According to Fan (2024) participants rated "overcoming

the fear of putting on roller skates" and "relaxing or feeling happy when roller skating" highly, indicating that they were good at psychological preparation and emotional management. Psychological confidence and positive attitude help participants stay calm and optimistic when facing roller skating activities, so that they can overcome initial fear and discomfort. This is because they have received some psychological counseling before participating in roller skating activities, or they have strong adaptability and self-regulation abilities. On the other hand Hernández, et al. (2024) pointed out in their study that compared with psychological factors, participants rated their practical skills lower, especially "easy rotation", which scored the lowest. This shows that participants face certain challenges in technical training and skill mastery. The reasons for this include: insufficient time and intensity of technical training, lack of professional guidance, or the participants' own sports foundation and coordination need to be improved. In addition, technical movements such as rotation require higher body control ability and technical proficiency, which can only be mastered through repeated practice and long-term training. Participants performed well in psychological adaptability, but there is still room for improvement in technical operation. Future training can increase the frequency of technical operation practice and professional guidance while maintaining psychological counseling to balance the gap between psychological preparation and technical mastery. This can help participants make better progress in both psychological and technical aspects and improve overall self-flexibility.

Table 3. The assessment of roller skating skills and fundamentals

	Mean	SD	Descriptive	Interpretation	Rank
1.I can complete the A-turn	3.13	0.83	Agree	Interested	7
2.I can complete a straight forward glide on one foot	3.16	0.86	Agree	Interested	6
3.I can do a balanced squat	3.25	0.82	Agree	Interested	4.5
4.I can complete the gourd step	3.46	0.70	Agree	Interested	1
5.I can complete the press turn	3.33	0.81	Agree	Interested	2
6.I can complete the brake	3.25	0.87	Agree	Interested	4.5
7.I can complete a safe fall	3.27	0.84	Agree	Interested	3
Over-all	3.27	0.30	Agree	Interested	

Legend: 3.51– 4.00 Strongly Agree/Very interested 2.51 – 3.50 Agree/Interested 2.51 – 3.50 Disagree/Less Interested 1.00 – 1.50 Strongly Disagree/Not Interested.

In Table 3, the overall mean is 3.27, indicating that the participants' evaluation of their roller skating skills and basics is relatively positive, but has not yet reached the level of "very interested". The highest scoring is "I can complete the gourd step", The descriptive statistics show a composite mean score of 3.46 with a standard deviation of 0.70. The lowest scoring option is "I can complete the A- turn", The descriptive statistics show a composite mean score of 3.13 with a standard deviation of 0.83 and a description level of "interested". On the one hand, the participants have a high level of proficiency in basic movements and safety skills (such as completing the gourd step, completing the brakes, and falling safely) because these skills are practiced and emphasized more in training. On the other hand, for more complex movements (such as A-shaped turns), the participants' proficiency and confidence are relatively low, which is because these movements have higher technical requirements and longer practice time. Participants generally have a positive attitude towards their roller skating skills and basics, but there is still room for improvement in complex

technical movements. Future training can increase the special training of complex technical movements while maintaining basic movement practice to comprehensively improve the participants' roller skating skills and confidence.

According to Yang & Zhou (2023) Participants rated basic movements (such as gourd steps, braking, and safe falls) highly, which shows that the training content attaches great importance to these basic skills. Basic skills are usually the first things that beginners learn and practice repeatedly, so participants are more proficient and confident in these aspects. This also shows that the training plan is well arranged in terms of basic skills, and participants have sufficient time and opportunities to practice these movements. On the other hand Sehgal, et al. (2023) Relatively low scores appeared in complex movements such as A-turns, indicating that these movements are technically difficult and require more practice time and higher skill levels. Complex movements not only require strong physical coordination and control ability, but also require participants to psychologically overcome the fear of failure. The lack of intensity and frequency of practice for

these complex movements in training led to low self-confidence in these aspects for participants. Participants performed well in basic skills, but there is still room for improvement in complex movements. Future training should

strengthen special training for complex technical movements while maintaining basic skill practice to improve the overall roller skating skill level of participants.

Table 4. The assessment of personal interest

	Mean	SD	Descriptive	Interpretation	Rank
1.I know the culture of roller skating	3.39	0.69	Agree	Interested	6
2.I am interested in roller skating.	3.44	0.66	Agree	Interested	5
3.I am very willing to participate in or touch the sport of roller skating.	3.47	0.66	Agree	Interested	4
4.Roller skating has a great negative effect on one's life and mood.	2.74	1.10	Disagree	Less Interested	7
5.I am very happy with roller skating, which is exactly what I expected.	3.51	0.59	Strongly Agree	Very interested	2
6.I can challenge myself with roller skating	3.55	0.59	Strongly Agree	Very interested	1
7.I can realize my potential in roller skating	3.49	0.59	Agree	Interested	3
Over-all	3.37	0.28	Agree	Interested	

Legend: 3.51 – 4.00 Strongly Agree/Very interested/ 2.51 – 3.50 Agree/Interested 2.51 – 3.50 Disagree/Less Interested 1.00 – 1.50 Strongly Disagree/Not Interested.

In Table 4, the overall mean is 3.37 and the standard deviation is 0.28, indicating that participants generally hold an "interested" attitude towards their personal interest in roller skating. The highest scoring is "I can challenge myself with roller skating". The descriptive statistics show a composite mean score of 3.55 with a standard deviation of 0.59, and a descriptive rating of "very interested" with a rating of 1. The lowest scoring is "Roller skating has a great negative effect on one's life and mood.". The descriptive statistics show a composite mean score of 3.74 with a standard deviation of 1.10, and a descriptive score of "not very interested". This means: participants have high interest and positive attitudes toward roller skating, especially because they believe that roller skating allows them to challenge themselves and gain the expected satisfaction. This shows that roller skating has a positive role and attraction in the lives of participants, stimulating their interest and enthusiasm. This was further supported by the lower negative ratings "Roller skating has a greater negative impact on life and emotions", indicating that most participants did not believe roller skating had a significant negative impact on their lives and emotions. Participants have a high interest and identity in roller skating, are willing to participate and challenge themselves, and gain satisfaction and happiness from it. This positive attitude stems from the fun and challenge of roller skating itself, as well as the sense of accomplishment and self-actualization that participants experience during the process. In the future, more promotion and activity design can be used to further enhance participants' interest and positive experience, and promote the popularity and development of roller skating. According to Dhodapkar, et al. (2023) Participants gave the highest evaluation to "I can challenge myself through roller skating" and "I am very satisfied with roller skating, which is exactly what I expected", indicating that they experienced a strong sense of achievement and the fun of self-challenge during roller skating. This is because roller skating is not only a sport, but also provides opportunities for personal achievement and self-breakthrough, which meets the psychological needs and desire for self-realization of participants. On the other hand, Filogna, et al. (2023) The option with the lowest score was "roller skating has a significant negative impact on a person's life and emotions", indicating that most participants did not think that roller skating would have a significant negative impact on their lives and emotions. This is because the fun and social attributes of roller skating activities enable participants to relieve stress and improve their mood while

enjoying the sport, thereby reducing the perception of negative effects. Participants gained a high sense of accomplishment and satisfaction with self-challenge in roller skating activities, while having a low perception of negative effects. These two aspects together contributed to their high interest and positive attitude towards roller skating.

6. Conclusion

Based on the indicated findings, the following conclusions were drawn from the results of the study:

(1) Research shows that teachers' support for students and teaching quality are rated highest among external factors and significantly affect students' interest in learning. This suggests that teachers' role in student learning and engagement is critical, while parent support and involvement is relatively minor.

(2) Sex and grade have an overall insignificant impact on various aspects of students' interest in skating. The only significant difference was in skating experience ratings, but the actual impact was small. The consistent and progressive nature of skating program design keeps interest levels stable across grade levels, and the main factors may involve personal interests and experiences rather than gender or grade level.

(3) Respondents are generally satisfied with the learning content, resources and activities, and task implementation, but there is still room for improvement. This suggests that attention needs to be paid to the optimization of learning resources and activities to further enhance students' learning experience.

(4) Research shows that there is no significant difference in sex satisfaction with the implementation of learning tasks, but men are significantly more satisfied than women in terms of learning content and learning resources and activities. It is recommended that sex differences should be considered when designing learning content and resources and more inclusive strategies should be developed.

(5) Grade has a consistent impact on learning satisfaction: There is no significant difference in the satisfaction of different grade students in terms of learning content, resources and activities, and task implementation, which shows the consistency and stability of the education system in dealing with the needs of different grade students. sex. This indicates that the overall quality of education and curriculum are adaptable to all grade levels.

There is no significant regression between satisfaction and interest: There is no significant correlation between satisfaction with learning content, learning resources and activities, and implementation of learning tasks and various interests and factors. Student satisfaction is more affected by the overall teaching quality, course schedule and educational environment than by a single external or internal factor. Educational institutions should focus on improving the overall education quality and environment rather than relying too much on one factor to improve student satisfaction.

7. Recommendations

Based on the results, the researcher provides the following suggestion

(1) Educational institutions should strengthen the training and support of teachers to improve their professional knowledge and teaching skills. At the same time, teachers are encouraged to pay more attention to students' individual needs and feedback to further improve students' learning interest and participation.

(2) Considering the differences in gender interest and learning satisfaction in skating, educational institutions should focus on inclusiveness in course design and resource allocation to ensure that both male and female students can be fully satisfied in terms of learning content and resources. Develop more targeted strategies to improve the overall satisfaction of students of different genders.

(3) Although students' satisfaction with learning content, resources and activities is generally high, there is still room for improvement. Educational institutions should continuously evaluate and improve the quality of learning resources and activities to ensure that students can obtain rich and high-quality learning experiences and further improve their satisfaction.

(4) Since students of different grades have consistent satisfaction in learning content, resources and activities, as well as task implementation, educational institutions should continue to maintain consistency and stability in teaching content and course arrangements. At the same time, according to the characteristics of students of different grades, the teaching methods should be appropriately adjusted and optimized to ensure that the needs of students of all grades are effectively met.

(5) Studies have shown that student satisfaction is more

affected by the overall teaching quality, course arrangement and educational environment. Therefore, educational institutions should comprehensively improve the quality of education, optimize course design and teaching environment, rather than over-relying on a single external or internal factor to improve student satisfaction. Regularly evaluate teaching effectiveness, collect student feedback, and make improvements based on feedback to ensure continuous improvement in education quality.

Through the above suggestions, educational institutions can more effectively enhance students' interest and satisfaction in skating courses and promote students' all-round development.

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