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## Influence factors analysis of roller skating development in hebei universities

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### ABSTRACT

Roller skating development in Hebei universities is not ideal, it has lots of problems in roller skating popularization, roller skating site apparatus, whether roller skating is scientific and normal developing and universities roller skating teaching methods aspects. The paper makes researches and analysis of roller skating existing problems during its development in Hebei universities by documents literature, questionnaire survey, experts interview and mathematical statistical as well as other methods, puts forwards suggestions that Hebei universities should strengthen roller skating venues construction, provide good roller skating hardware facilities, enlarge roller skating publicity, regular host roller skating relative activities, improve roller skating course faculty, optimize roller skating course setting and others, so as to promote roller skating development in Hebei universities.

### KEYWORDS

Roller skating; Roller skating teaching; Status; Analysis.



## INTRODUCTION

Due to roller skating has features of simple and easy, strong interests, body building and heart building, fashionability and others, roller skating exercising is helpful for improve body heart and lung functions, improve body coordination and sense of balance, cultivate roller skaters agility, strong ideological quality, so roller skating is well-received by teenagers, and meanwhile roller skating also certain develops in Chinese universities. According to relative statistics, domestic over 60% universities have roller skating communities, and formal develop roller skating, which not only drives Chinese roller skating development, but also extends bigger roller skating industrial forms<sup>[1]</sup>. However, roller skating development in Chinese universities also have various problems, these problems directly constraint roller skating development and popularization in Chinese universities.

For roller skating development in Chinese universities and development process existing problems, lots of scholars have made a great deal of researches, and put forward many valuable conclusions and suggestions. Among them, Du Jian-Liang (2013) applied questionnaire survey and mathematical statistics to study on Shijiazhuang vocational colleges sports teaching roller skating course setting status, analyzed Shijiazhuang Universities roller skating course setting necessity<sup>[2]</sup>; Liao Xiang-Long and others (2013) started from sports teaching theory, studied on Chinese universities roller skating option course teaching contents, methods and so on, and put forward detailed suggestions<sup>[3]</sup>; Zhao Zhen-Hao (2013) for universities roller skating teaching features, he studied on roller skating course effects on all aspects of universities students, and meanwhile analyzed present universities roller skating course existing problems in all aspects, put forward detailed suggestions<sup>[4]</sup>; Li Wei (2013) applied documents literature, mathematical statistics and other studying methods to make statistics of Hunan university of science and engineering roller skating exercises status, proposed suggestions as combining with practices to set up roller skating option course, and strengthening roller skating associations construction as others<sup>[5]</sup>; Wang Jin and others (2014) researched on Liaoning province roller skating teaching status by documents literature, mathematical statistics, experts interviews and other methods, analyzed Liaoning province roller skating teaching problems, and put forward some suggestions targeted at Liaoning province roller skating teaching reformation<sup>[6]</sup>.

The paper applies documents literature, mathematical statistics, questionnaire survey, experts' interviews and other methods to make analysis and researches on roller skating development in Hubei province universities and teaching two aspects, in the hope of providing references for roller skating development in Hebei province universities.

### HEBEI UNIVERSITIES STUDENTS' ROLLER SKATING ORGANIZATION

The paper applies documents literature and experts interview methods to make statistics of present Chinese universities roller skating organization and teaching universal existing problems, formulates a set of relative questionnaire, and passes expert checking. The paper carries on relative comprehensive questionnaire survey on Hebei provinces each city above 40 universities, it randomly releases 1600 pieces of questionnaires, returns 1565 pieces of questionnaires, recovery rate is 97.81%, and meanwhile carries on questionnaire survey again on 100 people of them so as to make questionnaire reliability test, test result is that questionnaire reliability is 91.00%.

In randomly released 1600 pieces questionnaires answer sheets, there are 493 students participate in roller skating in university life that occupy 30.81% of informants. This chapter makes researches and analysis of roller skating development in Hebei universities from the aspects of Hebei university students' roller skating knowledge level, understanding, information source and others.

#### Hebei university students' roller skating knowledge status

For Hebei universities students roller skating knowledge status, the paper makes researches and analysis from universities students understand on roller skating and roller skating knowledge sources two aspects.

For Hebei universities students understanding on roller skating, in questionnaire, it lists roller skating skills, roller skating classification, roller skating contests and other relative questions, finally according to these questions answers, it makes comprehensive judgment on informants students whether know roller skating and their understanding levels, and lists four grades for informants students roller skating understanding levels that are comprehend, digest, know a little and don't know such four options, the statistical data is as TABLE 1 shows.

**TABLE 1 : Hebei universities students understanding status on roller skating**

	Comprehend	Digest	Know a little	Don't know
Number of people	67	221	601	676
Percentage	4.28%	14.12%	38.40%	43.19%

By TABLE 1, it is clear that among the 1565 informants, 676 people don't know roller skating knowledge that occupies 43.19% of number of informants. And among these students that they don't know roller skating, more students participate in roller skating or even attend in roller skating course. And 601 people know little about roller skating that occupy 38.40% of number of informants, these students mainly get acknowledge of roller skating through competition information or by exchanging with others. 221 people digest roller skating that occupy 14.12% of number of informants. These students mostly often exercise roller skating, lots of students participated in school roller skating option course or love roller skating competitions. Only 67 people comprehend roller skating knowledge that only occupy 4.2% of number of informants. Lots of these students participated in school or out of school roller skating communities or clubs, and partial students undertake important positions in school communities or clubs, one of them undertakes important positions in outside school communities.

Students that participate in roller skating, their knowledge channel with roller skating knowledge information also reflects roller skating development status in universities to certain extent. In questionnaire survey, main source of roller skating knowledge information has been set six options that are roller skating course, community or club, network, books and magazines, friends and others. Among them, that students fill in questionnaire learning status problems with comprehend, digest and know a little are totally 889 people, these students all fill in learning channels problems. The statistical data is as TABLE 2 shows.

**TABLE 2 : Roller skating knowledge information main sources statistical data**

	Roller skating course	Community or club	Network	Books and magazines	Friends	Others
Number of people	171	170	360	39	138	11
Percentage	19.12%	18.91%	40.04%	4.39%	15.52%	1.24%

By TABLE 2, it is clear that among 889 people fill in questionnaire roller skating knowledge information main sources questions, people that roller skating knowledge information main source as roller skating course are 171 that occupy 19.12% of the 889 people, students that main source is communities or clubs are 170 people that occupy 18.19%, from which partial students roller skating course, communities or clubs participation are during middle school or primary school period, and they don't participate during university period. Students that roller skating knowledge information main source is from network are 360 people that occupy 40.04% of the 889 people, their proportion is the largest one. These students mainly are interested in roller skating or roller skating competitions, and do searching and browsing of roller skating competitions and other knowledge information on line. 39 people roller skating knowledge information main source is from books and magazines, the kind of students are mainly interested in sports, they often read sports kinds of newspapers and magazines. 138 people roller skating knowledge information mainly source is from friends, their friends exchange with them about roller skating information or they go together with friends to exercise roller skating. And 11 people choose other; the proportion is only 1.24%.

By above analysis, it is clear that Hebei universities students roller skating knowledge popularization rate is not high, universities also lack of advertising on roller skating knowledge, in future Hebei Universities should strengthen roller skating knowledge publicity so as to propel to roller skating development in universities.

**Hebei universities students attitudes toward roller skating**

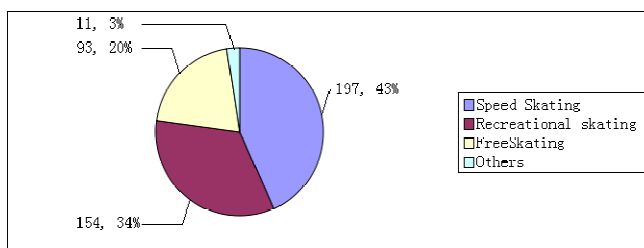
Due to university students that engage in roller skating have different sports motivations, their attitudes toward roller skating are also different. This chapter analyzes and researches on different students attitudes toward roller skating form roller skating exercising motivation, interests in roller skating and other aspects. The paper carries on roller skating interests’ investigation on 493 students that participated in roller skating, their statistical results are as TABLE 3 show.

**TABLE 3 : Interests table of roller skating exercising students to roller skating**

Interests	Like	General	Dislike
Number of people	251	204	38
Percentage	50.91%	41.38%	7.71%

By TABLE 3, it is clear those university students that like roller skating are 251 people that occupy 50.91% of 493 informants students 50.91%. These students either possess their roller skating devices, or often exercise roller skating in entertainment venues, the students that roller skating exercising time surpass one hour per time are 185 people that occupy 73.71% of the 251 people.204 students show general attitude towards roller skating that occupy 41.38%,these students engage in roller skating are for getting credits and others. 38 university students show dislike roller skating, theses students engage in roller skating are for accompanying with classmates or else, they occasionally exercise roller skating.

And meanwhile, students selection on roller skating are also relative single. Roller skating generally has speed skating, recreational skating, free skating, artistic skating, roller ball and extreme skating. Most of students select roller skating mainly is for entertainment, fitness, communication and so on, so mainly take roller skating events as speed skating and recreational skating. Carry on roller skating investigation on 455 university students that participated in roller skating and turn to be general or like roller skating, each kind of roller skating participants number and proportion are as Figure 1 show.



**Figure 1 : Each kind of roller skating event participation university students’ amount and proportion**

By Figure 1, it is clear that university students that mainly exercise speed skating are most that have 197 people, which occupy 43.30% of 455 university students that participated in roller skating and turn to be general or like roller skating. Secondly is recreational skating, it has 154 students that occupy 33.85%. Students that mainly participate in free skating are 93 people that occupy 20.44%. Total amount of university students that participate in artistic skating, roller ball and extreme skating are only 11 people that occupy 2.24%. Reasons that university students make such selection on roller skating, it mainly is from university student motivation on roller skating. It mainly because that recreational skating and speed skating don’t need very professional technical guiding, fields and apparatus so on, speed skating contests are easy to organize, roller ball, artistic skating, extreme skating organization

requirements are high, expenses is big as well as others. It also shows roller skating development in Hebei universities are not standard to some extent. Hebei universities need to adopt certain guidance and standard countermeasures on students roller skating and propel to roller skating scientific and standard development in Hebei universities.

Motivations of Students engaging in roller skating are also not fully the same, during the paper 1565 informants university students, it carries on roller skating participation motivation questionnaire on 493 university students that participated roller skating, classify their main motivations into six kinds: get credits, body building and heart building, entertainment and pass time, self-display, social communication and else. The statistical data is as TABLE 4 shows.

**TABLE 4 : Hebei universities students' roller skating exercising motivation statistical table**

	<b>Get credits</b>	<b>Body building and heart building</b>	<b>Entertainment and pass time</b>	<b>Self-display</b>	<b>Social communication</b>	<b>Else</b>
Number of people	61	113	117	101	69	32
Percentage	12.37%	22.92%	23.73%	20.49%	14.00%	6.49%

By TABLE 4, it is clear that 61 students participate in roller skating are for getting credits that occupy 12.37%. By far, Hebei province has nearly 40% universities that set up roller skating sports option course<sup>[7]</sup>. Due to sports option courses quantity and other issues, even partial university students that they don't like roller skating have to select roller skating option course. Universities students that select body building and heart building are 113 people that occupy 22.92%, with lifelong sports development in China, universities students proportions that engage in roller skating for body building and heart building will surely increase in future. Main motivation for 117 people engage in roller skating is for entertainment and pass time that occupy 23.73%. Students take self-display as main motivation are 101 people that occupy 20.49%, these students are mainly for training superb roller skating technique to show oneself. 69 people engage in roller skating are mainly for social communication that occupy 14.00%, they want to make more friends by roller skating course and roller skating exercising.

### **Hebei universities students' roller skating other influence factors**

By far, Hebei universities students' roller skating engagement influence factors are various; except for above analyzed students exercising motivation and others, they are many other factors. The paper makes researches and analysis of Hebei universities roller skating organization each kind of influential factors by documents literature and experts interviews methods, finally by sorting out and analyzing, it mainly studies on funds problem, sports fields' problem and protectors' problem.

The paper makes statistics of Hebei universities surrounding malls' roller skating instruments price and price of roller skating entertainment venues that need to pay, and takes this as references, makes statistics of 1565 pieces of effective questionnaires, investigates on Hebei universities students' payment status on roller skating exercising funds. Questionnaire sets up four options on the problem that are respectively easily pay, affordable, barely pay and hard to pay. Its statistical data is as TABLE 5 shows.

**TABLE 5 : Hebei Universities students' roller skating exercising funds payment capacity statistical table**

	<b>Easily pay</b>	<b>Affordable</b>	<b>Barely pay</b>	<b>Hard to pay</b>
Number of people	393	754	284	134
Percentage	25.11%	48.18%	18.15%	8.56%

By investigation, most of Hebei universities students' monthly living expenses or term expenses are fixed. By TABLE 5, it is clear that in 1565 effective questionnaires, Hebei universities students that answer as easily pay have 393 people that occupy 25.11% of effective questionnaires. Hebei universities students that can afford have 754 people that occupy 48.18% of effective questionnaires. 284 people

select barely pay option in questionnaires that occupy 18.15%. Other 134 people select hard to pay such option that occupies 8.56% of total effective questionnaires. Hebei universities students that answer as easily pay and affordable totally have 1147 people that occupy 73.29% of total effective questionnaires, which shows most of Hebei universities students living conditions are better, funds problem is not the main problem that affect roller skating event development in Hebei universities.

Universities students' roller skating exercising places mainly are park square, entertainment venues, school vacant land and others. Make investigation on 493 people that engaged in roller skating of informants students, numbers of people statistics of mainly exercising roller skating in each kind of fields are as TABLE 6 shows.

**TABLE 6 : Statistical table of students exercise roller skating in each kind of roller skating sports fields**

	Park square	Entertainment venues	School vacant land	Others
Number of people	143	104	155	91
Percentage	29.01%	21.10%	31.44%	18.46%

By TABLE 6, it is clear that Hebei university students that engage in roller skating, there are 155 people mainly exercise roller skating in school vacant land that occupy 31.44% of total number of students engaging in roller skating. 143people often exercise roller skating in park or square and other outside school open places that occupy 29.01% of total number of people. 104 people often carry on pay roller skating in entertainment venues that occupy 21.10% of total number of people. In addition, there are 91 people exercise roller skating mainly in other places as partial students often use roller skating instead of walking, they often take roller skating in the streets and others, these students occupy 18.46% of total number of people.

Reasons for Hebei universities students roller skating exercising venues appear such status, it is mainly because many school sports facilities are not perfect, partial schools and universities apartments buildings areas are smaller, buildings are concentrated, and entertainment venues are limited and charge, so lots of students have to exercise roller skating in school vacant land or school nearby park and square, which limits roller skating development in Hebei universities to a certain degree.

Hebei universities students scientific and standard go in for roller skating can promote roller skating development in Hebei universities, so when students go in for roller skating, protectors equipping also reflects roller skating organization status to a certain degree. The paper makes statistics of protectors equipping status of 493 students that go in for roller skating, its statistical data is as TABLE 7 shows.

**TABLE 7 : Protector equipping status when Hebei University students go in for roller skating**

	Always equip with protector	Often equip with protector	Occasionally equip with protector	Never equip with protector
Number of people	35	103	212	143
Percentage	7.10%	20.89%	43.00%	29.01%

By TABLE 7, it is clear that in students that go in for roller skating, students always equip with protector when go in for roller skating every time are only 35people that only occupy 7.01%. Students that often equip with protector are also just 103 people that only occupy 20.89%. And students that occasionally equip with protector or never equip with protector are 355 people that occupy 72.01% of roller skating exercising students. Therefore, roller skating development in Hebei universities is not scientific and standard.

### HEBEI UNIVERSITIES ROLLER SKATING TEACHING ANALYSIS

In Hebei province universities, there are nearly 40% universities organizing roller skating sports option course, roller skating teaching has also become one of important factors that affect roller skating

development in Hebei universities. Roller skating teaching quality high or low directly affects partial universities students' interests and positivity in roller skating, roller skating exercising technologies and so on. The paper studies on universities students and roller skating teachers, experts to Hebei universities roller skating teaching status by questionnaire survey and experts interview method.

### University students' opinions about roller skating teaching

In the paper effective questionnaire 1565 Hebei universities students, 121 people took roller skating option course in school. By questionnaire survey on the 121 people, it finds that universities students' roller skating option course learning influences are mainly sports fields and roller skating teachers teaching. Its investigation result is as TABLE 8 shows.

**TABLE 8 : Roller skating option course teaching main influence factors**

	Teachers teaching	Sports fields	Others
Number of people	58	29	34
Percentage	47.93%	23.97%	28.10%

By TABLE 8, it is clear that students think roller skating option course teaching main influence factor is teachers' teaching are 58 people that occupy 47.93% of totals. Students that think main factor is sports fields are 29 people the occupied proportion is 23.97%. In addition, there are 34 students think roller skating teaching influence are due to other reasons such as roller skating option course testing is not scientific, roller skating has certain risk and so on, these students occupy 28.1%.

In order to research on teachers teaching and sports fields influences on roller skating option course teaching, the paper makes further questionnaire survey in questionnaires. Among them, investigation result of roller skating option course participated students satisfaction on sports fields is as TABLE 9 shows.

**TABLE 9 : Roller skating option course students' satisfaction on roller skating teaching fields**

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
Number of people	17	21	58	25
Percentage	14.05%	17.36%	47.93%	20.66%

By TABLE 9, it is clear that students that are very satisfied with roller skating teaching fields are only 17people; it only occupies 14.05% of total number of students. 21 people are satisfied with roller skating teaching fields that occupy 17.36% of total number of students. Students that are dissatisfied with roller skating teaching fields are 58 people that occupy 47.93% of total number of students. 25 roller skating option course students are very dissatisfied with roller skating teaching fields that occupy 20.66% of total number of students. Among them, students that are dissatisfied and very dissatisfied with roller skating option course teaching fields are totally 83 people that occupy 68.59%. Therefore, though students that think teaching fields to be roller skating option course teaching main influence cause only occupy 23.93%,teaching fields impacts on roller skating option course teaching are still very serious. So to improve Hebei universities roller skating option course teaching level, it must solve roller skating teaching field issue.

The paper makes further questionnaire survey on 58 students that think universities roller skating option course teaching main influence factor is teachers teaching, from which above 8 students think teachers teaching main influence factors are four items that are teachers teaching contents are dull, teachers teaching attitudes are poor, teachers levels are low and teaching contents set is not reasonable. The statistical data is as TABLE 10 shows.

By TABLE 10, it is clear that students think mainly is Teachers teaching contents are dull and Teaching contents set is not reasonable are respectively 17 people and 12 people, which respectively occupy 29.31% and 20.69% of total number of people. Students that think teachers teaching attitudes are

poor and teachers' levels are low are respective 12 people and 10 people, their proportions are respectively 20.69% and 17.24%. It also reflects Hebei universities roller skating option course teachers' professional knowledge is low, professional roller skating teachers are fewer and other problems to a certain degree. Therefore, improve roller skating teachers professional level is one of essential measures to develop Hebei universities roller skating.

**TABLE 10 : Roller skating teachers teaching quality influence factors statistical result**

	Teachers teaching contents are dull	Teachers teaching attitudes are poor	Teachers levels are low	Teaching contents set is not reasonable	Else
Number of people	17	12	10	12	7
Percentage	29.31%	20.69%	17.24%	20.69%	12.07%

### Professionals opinions on roller skating teaching

The paper studies on Hebei universities roller skating teaching by documents literature and experts interview methods. Among them, it consults 44 teachers, sports experts, roller skating experts that have ever studied on roller skating development in Hebei universities, and refers to and researches on 23 pieces of thesis about researches on Hebei region universities roller skating teaching. By interviewing and consulting information, the paper makes statistics of professionals and literatures proposed questions on Hebei universities roller skating teaching, the questions mainly can be divided into seven aspects:

- Roller skating course contents setting is irrational;
- Students physical quality differences;
- Test and evaluation system are imperfect;
- Faculty is lower;
- Teaching fields apparatuses are bad;
- Students willpower is weak;
- Students have problems in motivation of engaging in roller skating course.

In experts interviewing and information looking up, all experts and literatures mention faculty is low and teaching fields' apparatuses are main causes that affect Hebei universities roller skating teaching that occupy 100% of interviewed experts and consulted information. Amount of experts and literatures that mention roller skating course contents setting is irrational are 59 that occupy 88.06%. Amount of experts and literatures that mention test and evaluation system are imperfect are 41 that occupy 61.19%. Amount of experts and literatures that mention students willpower is weak are 37 that occupy 55.22%. Amount of experts and literatures that mention students' physical quality differences are 33 that occupy 49.25%. Amount of experts and literatures that mention students' roller skating engagement motivation affects roller skating teaching are 18 that occupy 26.87%. By above analysis, it is clear that promotes Hebei universities teaching faculty, improve roller teaching fields apparatus and optimize roller skating course teaching contents are top priorities to enhance Hebei universities roller skating teaching levels.

### CONCLUSION

In Hebei universities, roller skating organization is not ideal, has various problems, as fewer students go in for roller skating, not high popularization rate of roller skating sport knowledge, undesirable roller skating sports fields, incomprehensive development of kinds of roller skating events, roller skating engagement is not scientific and standard and so on. Hebei universities roller skating teaching organization is also not ideal, it exists problems as roller skating sports fields apparatuses levels are poor, roller skating teachers levels are low, roller skating curriculum setting is irrational, test and evaluation system is imperfect.



To promote roller skating development in Hebei universities, firstly it needs school to strengthen roller skating venues construction so as to provide good roller skating hardware facilities for students. And meanwhile, it also needs to strengthen roller skating event publicity, regular host corresponding roller skating competitions, advertising and other activities, positive create roller skating exercising atmosphere, improve students interests in roller skating, propel to roller skating scientific and standard development in universities. For roller skating option course teaching, school needs to improve roller skating course faculty level, optimize roller skating course setting, reform roller skating teaching contents, and promote roller skating development in Hebei universities.

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