

Research on the Influence of CUBA on the Development of College Basketball in Sichuan Province

Bo Zhang

China West Normal University College of Physical Education, Nanchong, Sichuan, 637000

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Abstract: This article aims to fully understand the current influence of CUBA on college basketball in Sichuan Province, find out the current problems existing in CUBA in terms of its influence on the development of college basketball in Sichuan Province, and put forward reasonable suggestions for these problems, so as to better promote the development of college basketball in Sichuan Province through CUBA. By using such methods as literature review, questionnaire survey, expert interview and mathematical statistics, this article investigates the development situation of basketball in 14 colleges in Sichuan Province, carries out comprehensive and systematic analysis and research on the influence of CUBA on college basketball in Sichuan Province from different perspectives and different types, and draws a main conclusion that the undertaking of CUBA competitions by colleges is conducive to promoting college students' understanding of CUBA. The propaganda of CUBA in colleges in Sichuan Province needs to be strengthened because CUBA plays a positive role in promoting students to participate in playing basketball and the construction of basketball courts in colleges. In order to further promote the development of college basketball in Sichuan Province, it is suggested that: ways of strengthening the propaganda of CUBA and learn from the experience of basketball development in foreign colleges.

1. Research Objects and Methods

1.1 Research Objects

This research takes students and teachers from 14 colleges in Sichuan Province including University of Electronic Science and Technology of China, Southwest Jiaotong University, Southwestern University of Finance and Economics, Sichuan Normal University, Sichuan College of Architectural Technology, Mianyang Teachers' College, Leshan Normal University, Southwest Medical University, China West Normal University, Southwest University of Science and Technology, A Ba Teachers University, Sichuan Vocational and Technical College, North Sichuan Medical College, Panzihua University as the research objects.

1.2 Research Methods

1.2.1 Literature Review Method

According to the content, purpose and task of this paper, a foundation is laid by referring to relevant literatures through the full-text database of Chinese academic journals, mainly reading the relevant research results on CUBA and basketball development in colleges, understanding the current situation of the research results related to the subject research, summarizing the research experience [1-2], finding out the existing shortcomings, for the theoretical framework design and train of thought of the research of this paper.

1.2.2 Expert Interview Method

Through e-mail, telephone, and face-to-face interviews, the paper interviewed experts in related research fields to listen to their valuable opinions on the development of college basketball.

1.2.3 Questionnaire Survey Method:

According to the purpose and needs of the paper research, mainly starting from the current

situation of the development of college basketball in Sichuan Province, etc., the author designs the questionnaire by himself. The basic method of "sampling survey" is adopted in the process of the questionnaire survey, sampling from 14 colleges in Sichuan Province. The questionnaire includes two parts: teachers' questionnaire and students' questionnaire. There are 18 prefecture level cities in Sichuan Province [3-4]. According to its geographical location, Sichuan is divided into four areas: East Sichuan, South Sichuan, West Sichuan and North Sichuan. The participating teams of the basic level preliminary competition of CUBA have covered some colleges in these four areas. Four colleges that have undertaken the CUBA competitions, seven colleges that have participated in the CUBA competitions, and 3 colleges that have not participated in the CUBA competitions so far are selected for comparison. The influence of CUBA on the development of basketball in three different types of colleges is reflected.

1.2.4 Mathematical Statistics Method

Excel and SPSS13.0 statistical software are used to classify, summarize and sort out the questionnaire data, and make routine statistical analysis on the corresponding data.

2. Result Analysis

2.1 Current Situation of the Understanding of College Students in Sichuan on CUBA

2.1.1 Understanding of College Students on CUBA

The survey results show that (as shown in Table 1), from the results of chi-square test, there is a significant difference in students' understanding on CUBA among three different types of schools including CUBA undertakers, CUBA participants and CUBA non-participants ($X^2=58.352$, $P=0.000$, $P<0.05$). The specific differences are as follows: In terms of understanding CUBA, the proportion of the college students from CUBA undertakers is the highest (85.0%), which is 29.6% and 41.7% higher than that of college students from CUBA participants and from CUBA non-participants, and the proportion of the college students from CUBA participants is 12.1% higher than that of college students from CUBA non-participants. It shows that the school's undertaking and participating in CUBA can promote the students' understanding on CUBA [5-7]. The college students from CUBA undertakers have the highest awareness of CUBA, and the influence of CUBA undertakers have the best effect.

Table 1 Statistics of students from three types of colleges in terms of understanding CUBA: CUBA undertakers, CUBA participants and CUBA non-participants n = 560.

	Undertakers		Participants		Non-participants		Test result	Test inference
	Frequency	Proportion	Frequency	Proportion	Frequency	Proportion		
Yes	136	85.0%	155	55.4%	52	43.3%	$X^2=58.352, P=0.000$	Significant difference
No	24	15.0%	125	44.6%	68	56.7%		
Total	160	100%	280	100%	120	100%		

Note: The questions of questionnaire are single choice.

2.2 Current Situation of College Students' Participation in Basketball Activities in Sichuan Province under CUBA

2.2.1 Situation of College Students' Participation in Basketball

The survey results show that (as shown in Table 2), from the results of chi-square test, there is a significant difference in students' participation in playing basketball among three different types of schools including CUBA undertakers, CUBA participants and CUBA non-participants ($X^2=29.491$, $P=0.000$, $P<0.05$). The specific differences are as follows: In terms of participating in basketball activities, the proportion of the college students from CUBA undertakers is the highest (93.7%),

which is 21.7% and 16.3% higher than that of college students from CUBA participants and from CUBA non-participants. Furthermore, chi-square test is carried out for CUBA participants and CUBA non-participants ($X^2 = 1.245$, $P=0.264$, $P>0.05$). There is no significant difference between the students from CUBA participants and the students from CUBA non-participants in terms of participating in basketball activities, which shows that the school's participation in CUBA has no effect on the students' participation in basketball activities in their spare time. The chi-square test result of CUBA undertakers and CUBA participants is $X^2 = 15.789$, $P=0.000$, and the chi-square test result of CUBA undertakers and CUBA non-participants is $X^2 = 29.710$, $P = 0.000$, ($P < 0.05$) with significant difference. It shows that the situation of students from CUBA undertakers in terms of participating in basketball activities is better than the other two types of schools, reflecting that undertaking CUBA has a certain impact on promoting students to participate in playing basketball in their spare time.

Table 2 whether to participate in playing basketball in daily exercise (n = 560).

	Undertakers		Participants		Non-participants		Total		Test result	Test inference
	Frequency	Proportion	Frequency	Proportion	Frequency	Proportion	Frequency	Proportion		
Yes	150	93.8%	202	72.1%	93	77.5%	445	79.5%	$X^2 = 29.491, P=0.000$	Significant difference
No	10	6.3%	78	27.9%	27	22.5%	115	20.5%		
Total	160	100%	280	100%	120	100%	560	100%		

Note: The questions of questionnaire are single choice.

2.2.2 Intensity of College Students' Participation in Extracurricular Basketball Activities

The survey results show that in terms of the frequency of college students participating in playing basketball in their spare time (Table 3), from the results of chi-square test, there is a significant difference in the frequency of students participating in playing basketball among the three types of schools ($x^2 = 19.085$, $P = 0.014$, $P < 0.05$). The selection proportion of the option "Participate in Playing Basketball 1-3 Times a Week" is the highest among all types of schools, in which the proportion of CUBA undertakers is higher than that of CUBA participants and CUBA non-participants, without difference; In the option of 4-5 times a week, the selection proportion of the students from CUBA undertakers is higher than that of CUBA participants, and the selection proportion of the students from CUBA undertakers is higher than that of CUBA non-participants. From the overall situation of the two options: 1-3 times a week and 4-5 times a week, the proportions of CUBA undertakers, CUBA participants and CUBA non-participants are 77.3%, 67.9% and 60.2% respectively. The proportion of CUBA undertakers is still the highest, followed by CUBA participants. It shows that the schools' undertaking and participating in CUBA have a certain impact on the frequency of students' participation in playing basketball, and the influencing effect of CUBA undertakers is better than CUBA participants.

Table 3 Frequency of participating in playing basketball (n = 445).

	Undertakers		Participants		Non-participants		Total		Test result	Test inference
	Frequency	Proportion	Frequency	Proportion	Frequency	Proportion	Frequency	Proportion		
2 times a week	39	26.0%	48	23.8%	15	16.1%	102	22.9%	$X^2 = 19.085, P=0.014$	Significant difference
1-3 times a week	77	51.3%	89	44.1%	41	44.1%	207	46.5%		
1-3 times a month	27	18.0%	34	16.8%	20	21.5%	81	18.2%		

1-3 times a quarter	7	4.7%	17	8.4%	8	8.6%	32	7.2%
1-3 times a semest er	0	0.0%	14	6.9%	9	9.7%	23	5.2%
Total	150	100%	202	100%	93	100%	445	100%

Note: The questions of questionnaire are single choice.

In terms of the exercise amount of students' participation in playing basketball (Table 4), the chi-square test results of the selection proportion of exercise amount of students' participation in playing basketball among the three different types of schools are significantly different ($\chi^2 = 49.805$, $P = 0.000$, $P < 0.05$). From the overall situation, the proportion of students from CUBA undertakers and CUBA participants in the two options of "Medium Exercise Amount" and "Large Exercise Amount" is higher than that of students from CUBA non-participants. In the two options of "Slight Sweating of Body" and "Slight Fever of Body", the selection proportion of CUBA non-participants is higher than that of CUBA undertakers and CUBA participants, showing that the exercise amount of students from CUBA undertakers and CUBA participants is higher than that of students from CUBA non-participants. The proportions of medium exercise amount and large exercise amount are shown among CUBA undertakers and CUBA participants. The proportion of CUBA participants is higher than that of CUBA undertakers. There is no difference in the results of chi-square test ($X=4.555$, $P=0.336$, $P>0.05$). It shows that for CUBA undertakers and CUBA participants, there is no difference in the exercise amount of students' participation in playing basketball between the two types of schools.

Table 4 Body feeling of participating in playing basketball (n = 445).

	Undertakers		Participants		Non-participants		Total		Test result	Test inference
	Frequen cy	Proporti on	Frequen cy	Proporti on	Frequen cy	Proporti on	Frequen cy	Proporti on		
numbne ss	3	2.0%	3	1.5%	1	1.1%	7	1.6%	$X^2 = 49.805, P=0.000$	Significa nt differenc e
Slight fever of body	21	14.0%	29	14.4%	26	28.0%	76	17.1%		
Slight sweatin g of body	44	29.3%	41	20.3%	45	48.4%	130	29.2%		
Moderat e sweatin g of body	47	31.3%	69	34.2%	17	18.3%	133	29.9%		
Profuse sweatin g of body	35	23.3%	60	29.7%	4	4.3%	99	22.2%		
Total	150	100%	202	100%	93	100%	445	100%		

Note: The questions of questionnaire are single choice.

In terms of activity time length of students participating in playing basketball (as shown in Table 5), according to the results of chi-square test ($X^2 = 21.296$, $P=0.007$, $P<0.05$), it shows that there

are significant differences in the activity time length of students participating in playing basketball among three different types of schools. From the overall situation, whether the school undertakes or participates in CUBA has no effect on the students who participate in basketball activities within 0.5-1 hour, but for the students who participate in basketball activities for more than 1.5 hours, the influence effect of the school participating in CUBA is obvious. In addition, the effect of the school undertaking CUBA on the duration of students' participation in basketball activities is relatively obvious only in terms of activity duration of 2 hours.

Table 5 Average duration table of participating in playing basketball each time (n = 445).

	Undertakers		Participants		Non-participants		Total		Test result	Test inference
	Frequenc y	Proportio n	Frequenc y	Proportio n	Frequenc y	Proportio n	Frequenc y	Proportio n		
0.5 hour	8	5.3%	12	5.9%	12	12.9%	32	7.2%	X ² =21.296,P=0.0 07	Significa nt differenc e
1 hour	50	33.3%	49	24.3%	38	40.9%	137	30.8%		
2.5 hour	33	22.0%	60	29.7%	22	23.7%	115	25.8%		
2 hour	32	21.3%	38	18.8%	13	14.0%	83	18.7%		
Ove r 2 hour	27	18.0%	43	21.3%	8	8.6%	78	17.5%		
Tota l	150	100%	202	100%	93	100%	445	100%		

Note: The questions of questionnaire are single choice.

2.3 Current Situation of the Implementation of Basketball Facilities in Basketball Courts of Colleges of Sichuan Province under CUBA

2.3.1 Number of Basketball Facilities in Basketball Courts of Colleges

According to the survey results (as shown in Table 6), according to the requirements of CUBA, colleges with one or more indoor courts and halls are eligible to apply for undertaking CUBA competitions. According to the survey, it can be known that during the seven years in 2012-2019, University of Electronic Science and Technology of China, Southwest Jiaotong University, Southwestern University of Finance and Economics and Sichuan Normal University have successively undertaken the preliminary competition of CUBA in Sichuan Competition Area, and the survey also reflects that the facilities of the sports courts of four colleges meet the conditions for undertaking CUBA competitions, while the other six colleges are eligible to apply for CUBA competitions in terms of the condition of basketball courts of the remaining six colleges. However, they haven't undertaken a CUBA competition so far. On the other hand, it reflects that the court facilities are not perfect and they have no enthusiasm for undertaking CUBA competitions.

In terms of the number of basketball courts, the number of basketball courts in CUBA undertakers is higher than that in CUBA participants and CUBA non-participants; The total number of basketball courts in CUBA participants and CUBA non-participants is small, which cannot meet the needs of students when they participate in playing basketball; In terms of the number of basketball courts and halls in three different types of schools, whether the school undertakes or participates in CUBA has no effect on the number of basketball courts constructed.

Table 6 Quantity analysis of college basketball courts in Sichuan Province.

School type	Name of school	Number of indoor basketball halls (set)	Number of outdoor basketball courts with plastic floor (set)	Number of outdoor basketball courts with cement floor (set)	Total (set)
CUBA undertaker	University of Electronic Science and Technology of China	2	40	0	42
CUBA undertaker	Southwest Jiaotong University	2	36	0	38
CUBA undertaker	Southwestern University of Finance and Economics	2	18	0	20
CUBA undertaker	Sichuan Normal University	2	20	0	22
CUBA participant	Mianyang Teachers' College	1	6	26	33
CUBA participant	Leshan Normal University	1	8	9	18
CUBA participant	Southwest Medical University	0	4	0	4
CUBA participant	China West Normal University	2	2	34	38
CUBA participant	Southwest University of Science and Technology	1	0	36	37
CUBA participant	A Ba Teachers University	1	10	0	11
CUBA participant	Sichuan College of Architectural Technology	0	28	0	28
CUBA non-participant	Sichuan Vocational and Technical College	1	9	0	10
CUBA non-participant	North Sichuan Medical College	0	5	10	15
CUBA non-participant	Panzhihua University	1	0	12	13

2.3.2 Quantity of Basketball Facilities in Basketball Courts of Colleges

The survey results show that (as shown in Table 7) in terms of indoor basketball halls, from the overall situation, CUBA undertakers are better than CUBA participants and CUBA participants are better than CUBA non-participants. It shows that undertaking and participating in CUBA play a certain role in promoting the construction of school basketball courts and halls.

From the perspective of courts with plastic floor and cement floor among the three different types of schools, the floor plasticization of CUBA undertakers is significantly better than that of CUBA participants and CUBA non-participants, but the floor plasticization of CUBA participants is generally worse than that of CUBA non-participants, which shows that the schools' undertaking CUBA has a certain impact on the floor plasticization, and whether or not the schools participate in CUBA has no impact on the floor plasticization of schools.

Table 7 Quality analysis of college basketball courts in Sichuan Province.

School type	Name of school	Wooden floor (piece)	Plastic floor (piece)	Cement floor (piece)
CUBA undertaker	University of Electronic Science and Technology of China	5	40	0
CUBA undertaker	Southwest Jiaotong University	3	36	0
CUBA undertaker	Southwestern University of Finance And Economics	2	18	0
CUBA undertaker	Sichuan Normal University	4	20	0
CUBA participant	Mianyang Teachers' College	1	6	26
CUBA participant	Leshan Normal University	1	8	9
CUBA participant	Southwest Medical University	0	4	0
CUBA participant	China West Normal University	1	5	34
CUBA participant	Southwest University of Science and Technology	0	5	10
CUBA participant	A Ba Teachers University	1	0	36
CUBA participant	Sichuan College of Architectural Technology	1	10	0
CUBA non-participant	Sichuan Vocational and Technical College	0	25	5
CUBA non-participant	North Sichuan Medical College;	0	28	0
CUBA non-participant	Panzhuhua University	1	0	12

2.4 The Influence of CUBA on College Basketball in Sichuan Province

2.4.1 Undertaking and Participating in CUBA Matches by Colleges are Conducive to Promoting Students' Understanding of CUBA among Colleges of Sichuan Province

CUBA is the association belonging to college students. As for whether the students know CUBA, the proportion of the students from CUBA undertakers is 85.0%, 29.6% and 41.7% higher than that of students from CUBA participants and CUBA non-participants, and the proportion of the college students from CUBA participants is 12.1% higher than that of college students from CUBA non-participants. It shows that the schools' undertaking and participating in CUBA can promote students' understanding of CUBA, and the schools' undertaking CUBA has the best effect.

2.4.2 Colleges' Undertaking and Participating in CUBA can promote the Enthusiasm, Activity Frequency and Exercise Amount of College Students' Participation in Basketball Activities to a Certain Extent

In terms of participating in basketball activities, the proportion of college students from CUBA undertakers is 21.7% and 16.3% higher than that of college students from CUBA participants and from CUBA non-participants, respectively. However, in terms of participating in basketball activities in their spare time, the proportion of students from CUBA participants and from CUBA non-participants is basically the same, which shows that schools' undertaking CUBA has a certain positive role in promoting students' participation in playing basketball; In terms of the frequency of college students participating in playing basketball in their spare time, the frequency of college students participating in playing basketball from CUBA undertakers and from CUBA participants is higher than that of CUBA non-participants, and the schools' undertaking CUBA has a better influence effect than that of schools' participating in CUBA; In terms of the exercise amount of

students' participation in playing basketball, the exercise amount of students from CUBA undertakers and CUBA participants are mainly medium and large exercise amounts, while the exercise amount of students from CUBA non-participants is mainly small exercise amount; In terms of activity time length and demand of students to participate in basketball activities, there is no difference in the choice of students from three different types of schools.

2.4.3 Colleges' Undertaking CUBA Has a Positive Effect on the Quality Improvement of Basketball Courts in Colleges in Sichuan Province, but Has No Effect on the Quantity Construction of Basketball Courts

CUBA has been held for 20 years. Generally speaking, CUBA has played a certain role in promoting the development and renewal of sports hardware facilities in colleges during the twenty years, especially facilities of basketball courts. But in part, there is no significant difference in the influence of CUBA on three different types of schools in promoting the construction of the number of basketball courts in colleges of Sichuan. Whether the school undertakes or participates in CUBA has no effect on the quantity construction of the school basketball courts. In terms of promoting the quality of basketball courts in colleges of Sichuan, the number of basketball halls of CUBA undertakers and the floor plasticization of outdoor courts is better than those of CUBA participants and CUBA non-participants [8-9]. However, floor plasticization of courts in CUBA participants is generally worse than that of courts in CUBA non-participants. It shows that CUBA has a certain influence on the floor plasticization of the courts in CUBA undertakers, and whether the school participates in CUBA has no influence on the floor plasticization of courts in the school.

3. Conclusions and Suggestions

3.1 Conclusion

3.1.1 Colleges' Undertaking or Participating in CUBA is Conducive to Promoting Students' understanding of CUBA

In general, college students in Sichuan Province have a high recognition for CUBA, but the recognition of college students from CUBA undertakers and CUBA participants is better than that of college students from CUBA non-participants, which shows that the colleges' undertaking CUBA and participating in CUBA have a certain promoting effect on students' understanding on CUBA, and the effect of undertaking CUBA is the best.

3.1.2 CUBA Playing a Positive Role in Promoting Students to Participate in Playing Basketball and the Construction of Basketball Courts in Colleges

CUBA has a certain positive effect on the part of the students participating in basketball activities their spare time among CUBA undertakers and CUBA participants, which is reflected in the frequency and intensity of participating in basketball activities. The development of basketball courts in colleges in Sichuan Province is unbalanced, and there are great differences. In terms of court quality, the court quality of CUBA undertakers is relatively good. Each college has two indoor basketball halls, and the outdoor basketball courts are fully plasticized; The quality of courts of CUBA participants and CUBA non-participants is relatively poor. There are still a large number of basketball courts with cement floor. Undertaking CUBA and participating in CUBA have no impact on the number of courts, but have a certain role in promoting the quality construction of the courts.

3.2 Recommendation

3.2.1 Way of Strengthening the Propaganda of CUBA

It is suggested that colleges that have conditions for the preliminary competition of CUBA in Sichuan Competition Area should take turns to undertake the CUBA, so that more students can have the opportunity to watch and experience the basketball atmosphere of CUBA on the spot. It is suggested that the main and guest match system should be implemented in the competition of CUBA in Sichuan Competition Area. On the other hand, the propaganda of CUBA should be

strengthened in colleges. CUBA is held based on colleges, and the development of CUBA cannot be separated from the strong support of colleges. Colleges play an important role in the influence on CUBA. We cannot ignore the role of colleges in the propaganda of CUBA. However, many colleges do not make good use of their sports propaganda facilities, which lead to the lack of in-depth understanding of teachers and students on CUBA. It is suggested that in the future development [10], colleges should make full use of and give full play to their various propaganda facilities to promote CUBA, so that more teachers and students can understand CUBA.

3.2.2 Learn From the Experience of Basketball Development in Foreign Colleges

After more than 100 years of development and evolution, NCAA is quite perfect in all aspects. However, CUBA is also a college basketball league with Chinese characteristics, which is carried out in accordance with NCAA mode. Although it started late, but after years of exploration and continuous improvement, the current CUBA has had a great influence in colleges across the country, and quickly set off a basketball whirlwind in participating colleges. But we should see our own shortcomings; there are still many areas to be improved. Learning from the successful experience of NCAA is an important measure to improve the development of college basketball in China.

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