CHENG, Guangxin, ZHONGCHEN ZHANG and ZHIMING SHI. Discussing the Reform of Physical Education Instruction Based on the Basic Skills Competition for Physical Education Majors in Chongqing Municipality's General Colleges and Universities. Journal of Education, Health and Sport. 2025;77:57263. eISSN 2391-8306.

https://doi.org/10.12775/JEHS.2025.77.57263 https://apcz.umk.pl/JEHS/article/view/57263

The journal has had 40 points in Minister of Science and Higher Education of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of 05.01.2024 No. 32318. Has a Journal's Unique Identifier: 201159. Scientific disciplines assigned: Physical culture sciences (Field of medical and health sciences); Health Sciences (Field of medical and health sciences).

Punkty Ministerialne 40 punktów. Załącznik do komunikatu Ministra Nauki i Szkolnictwa Wyższego z dnia 05.01.2024 Lp. 32318. Posiada Unikatowy Identyfikator Czasopisma: 201159. Przypisane dyscypliny naukowe: Nauki o kulturze fizycznej (Dziedzina nauk medycznych i nauk o zdrowiu); Nauki o zdrowiu (Dziedzina nauk medycznych i nauk o zdrowiu). © The Authors 2025;

This article is published with open access at Licensee Open Journal Systems of Nicolaus Copernicus University in Torun, Poland

Open Access. This article is distributed under the terms of the Creative Commons Attribution Noncommercial License which permits any noncommercial use, distribution, and reproduction in any medium, provided the original author (s) and source are credited. This is an open access article licensed under the terms of the Creative Commons Attribution Non commercial license Share alike.

(http://creativecommons.org/licenses/by-nc-sa/4.0/) which permits unrestricted, non commercial use, distribution and reproduction in any medium, provided the work is properly cited.

The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 23.11.2024. Revised: 02.01.2025. Accepted: 03.01.2025. Published: 03.01.2025.

Discussing the Reform of Physical Education Instruction Based on the Basic Skills Competition for Physical Education Majors in Chongqing Municipality's General Colleges and Universities

Guangxin Cheng¹, Zhongchen Zhang², Zhiming Shi³

¹Guangxin Cheng, School of sports, Southwest University, Chongqing, China, 400715.

²Zhongchen Zhang, School of sports, Southwest University, Chongqing, China, 400715.

College of Physical Education and Health, Yili Normal University, Yiling, China, 835000.

³Zhiming Shi, College of Artificial Intelligence, Southwest University, Chongqing, China, 400715.

National & Local Joint Engineering Research Center of Intelligent Transmission and Control Technology,

Chongqing, China, 400715.

¹Guangxin Cheng,e-mail:942022264@qq.com,ORCID:https://orcid.org/0009-0003-9376-1000.

²Zhongchen Zhang,e-mail:17794945568@163.com,ORCID:https://orcid.org/0009-0000-7266-7814.

³Zhiming Shi,e-mail:jay19932014@126.com,ORCID:https://orcid.org/0009-0000-1671-1657.

Absract

Purpose:In order to provide theoretical support for the basic skills competition of college and university students, the reform of physical education instruction in colleges and universities, and the talent development system for physical education majors, we analyze and research the basic skills competition in order to identify the issues that currently exist and propose solutions.

Methodology: The fundamental skills competition of physical education majors in regular higher education institutions in Chongqing in 2024 is thoroughly examined in this study using the literature approach, mathematical statistics method, observation method, and comparative analysis method.

Description of state of knowledge: A test of college and university physical education majors' training, the basic skills competition serves as a vital platform for advancing the caliber of college and university physical education majors, the caliber of students' physical education instruction, the depth of physical education majors' training, and the overall proficiency of students.

Conclusion:1. It is necessary to enhance the competition elements and score weighting, as well as to reinforce the uniformity of the student selection process and judging criteria. 2. Improve the basic skills competition's content and score distribution, create a scientific method for choosing pupils to compete, and fortify the impartiality of the performance evaluation criteria. 3. In order to increase the learning motivation of college and university students studying physical education, it is important to emphasize the value of teaching the fundamentals of various physical education topics. Additionally, the teaching of physical education should improve students' practical and application skills.

Keywords: physical education majors; basic skills; competition; teaching reform

Introduction

One hundred years of education-focused planning; teachers come first in the education plan[1]. In order to implement the spirit of the National Education Conference and the "Opinions of the CPC Central Committee and State Council on Carrying Forward the Educator's Spirit and Strengthening the Construction of High-quality Specialized Teacher Teams in the New Era" [2], to promote the reform and development of physical education majors in colleges and universities, to select units to participate in the national physical education majors' basic skills competitions of ordinary colleges and universities, and to improve the quality of the cultivation of physical education talents in ordinary colleges and universities of Chongqing [3, 4], and to further promote the To further promote the reform of physical education teaching in Chongqing colleges and universities, and to build a highquality professional physical education teacher team to meet the needs of the reform and development of basic education [5, 6], the Chongqing Municipal Commission of Education organized the Basic Skills Competition for Physical Education Majors in General Colleges and Universities of Chongqing (hereinafter referred to as the "Basic Skills Competition") in October, 2024[7]. The Basic Skills Competition has developed into a significant communication event for assessing the teaching caliber and level of current physical education majors, and it may assess the quality of physical education majors in a more thorough manner [8, 9].

The College of Physical Education and Health Sciences at Changjiang Normal University

held the Basic Skills Competition, which was conducted by the Chongqing Municipal Education Commission. The successful organization of the basic skills competition further enhances the quality of Chongqing's professional talent cultivation in physical education, raises the teaching proficiency of physical education majors in schools [10,11], supports the profession's overall reform and development, and showcases the professionalism and spirit of the students. It also examines and studies the basic skills competitions to identify issues and propose solutions, giving students in higher education a good opportunity to participate in the competitions, reform physical education instruction in colleges and universities, and develop physical education professionals. In order to provide a theoretical foundation for the college student basic skills competition, the reform of physical education instruction, and the physical education talent cultivation system, we analyze and research the basic skills competition in order to identify the issues that currently exist and propose solutions.

1 Overview of Basic Skills Competition

1.1 Competition Content Setting

In 2024, seven teams of forty-two students will compete in the Basic Skills Competition for Physical Education Majors of Chongqing Ordinary Colleges and Universities, which is sponsored by the Chongqing Municipal Education Committee. Each school recommends six students to participate (at least two female students), and each student participates in one of the competitions, which include athletics, soccer, basketball, volleyball, gymnastics, and wushu, in accordance with the pertinent contents of the mandatory education physical education and health teaching materials reviewed and approved by the National Textbook Committee's Expert Committee. The competition's material (see Table 1) is broken down into four sections: coaching skills, teaching skills (microcourse), motor skills (specialization), and basic theory (written test). Out of 400 points, each component is worth 100 points.

	Competition content and method								
Contents of the competition	Basic Theory	style	Teaching Skills	style	Sports Skill	style	Coaching	style	
	Introduction to Physical Education	One comprehens ive paper for closed-book examinatio	Athletics	A textbook for a particular program is selected on the spot, and you have 40 minutes to write a complete teaching design and conduct an 8-minute	Athletics	event to compete in, and the events chosen by 6 students from the same school cannot be Gymn.	Athletics	Students will watch a video of a teaching competition in the waiting room based on a motor skill of their choice and will be given 15 minutes to prepare, followed by 5 minutes of on-site instruction in	
	Sports Anatomy		Soccer		Soccer		Soccer		
	Exercise Physiology		Basketball		Basketball		Basketball		
	Sports Psychology		Volleyball teaching	teaching simulation	Volleyball		Volleyball		
	Health		Gymnastics	"class without	Gymnastics		Gymnastics	a verbal format.	
	Education		Wiichii	students".	Wiichii	duplicated	Wiichii		

Table 1. Competition content and method

1.2 Competition methods and awards

1.2.1 Competition method

The Provincial Department of Education selects six students (two female and four male) from each of the seven public full-time undergraduate colleges and universities that offer physical education majors in 2021. Every student competes in every category in the competition program. (1) Basic Theory: A thorough paper-based, closed-book test will be taken by all participating students. (2) Teaching Skills: The competition content of the program will be chosen at random prior to the competition for lesson plan preparation and simulated teaching based on the competition program that each participating student submitted during the registration of the participating unit. (3) Motor Skills: The motor skills competition will be held based on the competition items that each student participant supplied while registering for the participating units. Table 2 lists the competition contents and scores for each item. (4) Coaching Skills: Based on the competition items that each student participant submitted when

registering for the participating units, a video of the item's teaching competition will be chosen at random prior to the competition. The students will watch the video for fifteen minutes in the waiting area to get ready for it, and then they will perform oral coaching for five minutes on-site. Five minutes of vocal instruction on-site.

Table 2. Competition content and score of each item

	Item	Content	Score(points)	Total Score(points)		
		100m	100/3			
At	hletics	Long Jump	100/3	100		
		Shot Put				
Soccer		Passing	50	100		
8	occer	Dribbling	100			
D-	-14111	Shooting	40	100		
Basketball		Multi-direction dribble layups	100			
		Serve				
Vo	lleyball	Dunking	40	100		
	·	Self-passing and self-pad combination	20			
		One-minute rope skipping	20			
Gyr	Gymnastics Skill set 40		100			
		Bars routine				
	Specialized	Front Kick	10			
Wushu	Technology	Flying Kick	10	100		
vv usnu	Practical	24 Simplified Taijiquan	40	100		
	Demonstration	Optional Long Fist	40			

1.2.2 Reward methods

Individual all-around awards, school team awards, and individual awards will all be given out. According to the total scores of the participating students from each school, school team awards will be granted to the first, second, and third place winners; the first place winner cannot be higher than 15%, the second place winner cannot be higher than 20%, and the third place winner cannot be higher than 20%. For the first, second, and third prizes—the first going to the top 16, the second to the top 17–32, and the third to the top 33–48—the Individual All-Around Prize is determined by the combined score of the four events of the participating students. Basic theory, teaching skills, sports skills, and coaching skills are the four categories into which individual prizes are separated. In basic theory, teaching skills, and coaching skills, the first prize is given to 1–3; in sports skills, the first prize is given to 1-3, the second to 4-3, and the third to 17–32; in sports skills, the first is given to 1-3, the second to 4-3, and the third to 17–32. First place goes to the first three in each sports skill category, second place goes to the fourth to eighth, and third place goes to the ninth to sixteenth (if there are less candidates than the number of names that can be accepted, the number of applicants will be lowered by one).

1.3 Analysis of Basic Skills Competition Results

1.3.1 Analysis of group results of basic skills competition

This basic skills tournament consists of seven teams, and Table 3 displays the overall outcomes. With a slim margin of victory, Southwest University took first position, 2.21 points ahead of the host and Changjiang Normal College in second. The difference between third and the top two was substantial—roughly 18 points—the difference between third and sixth place was not particularly noticeable—just 6 points—and Chongqing University, which came in last, had a notable discrepancy with the schools' results.

Table 3. Basic skills competition team results

Achievement	Difference from previous place	Rank
438.73	0.00	1
436.51 2.21		2
417.67	18.85	3
416.83	0.83	4
413.21	3.62	5
411.68	1.53	6
404.63	7.05	7
	438.73 436.51 417.67 416.83 413.21 411.68	438.73 0.00 436.51 2.21 417.67 18.85 416.83 0.83 413.21 3.62 411.68 1.53

1.3.2 Analysis of individual results of the basic skills competition

According to Table 4, which summarizes the results of the basic skills competition, Yangtze River Teachers' College was the team that received the most first prizes, with 12 individuals receiving 30% of the total number of first prizes; 8 individuals from Southwest University receiving 20% of the total number of first prizes; 6 individuals from Chongqing College of Arts and Sciences receiving 15% of the total number of first prizes; and 5 individuals from Chongqing Teachers' College receiving 12.5% of the total number of first prizes. Five firstplace finishers (12.5%) were from Chongqing Normal University. Together, Chongqing University and Chongqing Three Gorges College took first place, with five individuals making up 12.5%. According to the distribution of individual results, every participating unit received first place, and the overall number of prizes for each unit was quite near to the average of 24. Chongqing Second Normal College's failure to place first in the individual allaround program was a reflection of the unit's inability to provide students with thorough ability training. Given their lower capacity to acquire and master theoretical information in regular times, Southwest University and Chongqing University did not place first in the fundamental theory ratings. Chongqing University and Chongqing Second Normal College's teaching skills scores fell short of first place, indicating the disparity between its physical education instructors and those at other institutions. The school needs to improve the teaching and honing of professional sports skills because Chongqing Three Gorges College did not place first in the sports skills results. The failure of Chongqing University, Chongqing Three Gorges College, and Chongqing Literature and Science College to take first place in the coaching skills competition indicates that the school has not given this program enough attention and needs to improve the study and supplementation of this material.

Table 4. Statistics on the individual winning scores of each unit in the basic skills competition

Unit	Grade	Individual All-around	Basic Theory	Teaching Skills	Motor Skills	Coaching Skills	Number	Total
	Gold	2		1	2	3	8	24
Southwest University	Silver	3	1	4	3	2	13	
	Bronze	0	2	1	0	0	3	
	Gold	2	2	3	2	3	12	27
Changjiang Normal University	Silver	2	0	2	1	2	7	
	Bronze	1	3	1	2	1	8	
	Gold	1	1	1	1	1	5	22
Chongqing Normal University	Silver	1	2	0	2	2	7	
,	Bronze	3	1	3	2	1	10	
	Gold	0	1	0	1	1	3	27
Chongqing Second Normal University	Silver	2	2	3	1	3	11	
,	Bronze	4	3	2	2	2	13	
	Gold	1	2	1	0	0	4	24
Chongqing Three Gorges College	Silver	1	1	1	3	1	7	
ougus conege	Bronze	3	1	3	2	4	13	
	Gold	1	2	2	1		6	22
Chongqing College of Arts and Sciences	Silver	2	2	1	1	1	7	
2 22 22 22 22 22 22 22 22 22 22 22 22 2	Bronze	1	1	2	2	3	9	
	Gold	1	0	0	1	0	2	19
Chongqing University	Silver	1	4	1	1	1	8	
	Bronze	1	2	1	3	2	9	

2 Problems in the basic skills competition

2.1 The basic theoretical knowledge is not comprehensive enough and lacks the knowledge of statistics, computer, scientific research and foreign language.

Introduction to Sports, Sports Anatomy, Sports Physiology, Sports Psychology, and Health Education are among the fundamental theoretical subjects covered in this basic skills competition. The evaluation of students' total ability is significantly impacted by their lack of proficiency in computers, scientific research, statistics, and foreign languages. We discovered that different provinces and the national basic skills competition have varying degrees of setting the assessment content of basic theoretical knowledge. The basic theoretical knowledge primarily consists of the fundamental theory of specialization, statistics, computers, and foreign languages after taking part in the basic skills competitions of other provinces and studying the pertinent data from the previous national basic skills competitions[12].

The basic skills competition for physical education majors in general colleges and universities in Chongqing in 2024 did not set up this part of the competition assessment due to a lack of theoretical knowledge of computers, scientific research, foreign languages, and other content. As a result, the students' perceptions of the competition's content are misleading, and the baton of the competition is biased, causing the students to pay little attention to this part of the knowledge. This changes the meaning of education as intangible, which is contrary to the idea of integrating sports and education in the modern era, and does not meet the demands of physical education teachers in the developing world [13].

2.2 The mechanism of selecting students is not reasonable enough.

The time required to determine the list of participating students, the selection process, and the range of participating students are all irrational. First of all, the senior undergraduates of 2021

are the grade chosen for participation, and since they are preoccupied with graduate school and jobs, they have little interest in taking part. Additionally, the selection range of participating students is not reasonable enough. Second, the process used to choose the participating pupils is not sufficiently scientific. For the pupils that participated in the last Basic Skills Competition, the expanding random sampling method was used, which improved identity verification and successfully guaranteed the selection's fairness[14]. Additionally, this competition's registration notices regarding the number of participants, gender ratio, and participant list, lack of universality, and students' inability to fully prepare, make it ineffective for evaluating the caliber and standard of regular physical education instruction in each school and fail to accurately reflect the competition's fairness, impartiality, and objectivity[15]. Lastly, there was not enough time to determine the list of pupils who participated. However, there was a disparity between the schools in terms of teachers' authority, material resources, and budget, so some participating institutions had to make a difference. In the previous Basic Skills Competition, the list of participating students was typically announced one month prior to the competition, but this competition actually determined the participating students from the time of issuing the notification. This prolonged the preparation time, narrowed the scope of the students who had to prepare for the competition, and increased the window of obtaining excellent competition results by stopping the classes and intensive training before the competition. However, some participating schools have developed an unfavorable social atmosphere of quick achievement and quick profit due to the disparity in teacher strength, material resources, and finances.

2.3 Large differences in the consistency of judging standards among referees

The Chongqing Municipal Education Commission chose the judges for the basic skills competition, who included temporary education researchers and professional instructors from different universities. Machine recognition is used to mark basic theoretical scores, and the questions are objective with more uniform marking guidelines. Scores for coaching and teaching abilities are more subjective and are determined by pertinent assessment markers. While gymnastics and wushu projects use technical standards and comprehensive standards combined evaluation method for assessment [16], the referee scale is inconsistent and more contentious. Sports skills performance, basketball, soccer, volleyball, and track and field results are assessed using quantitative methods, which are more objective and fair. Inconsistencies in the scale, omissions, and poor judgment occurred during the basic skills competition because of its brief duration, the sheer volume of competitors and competition items, and the referees' lack of extensive, coordinated training and hands-on practice prior to the competition. The majority of referees were hired on a temporary basis and did not officiate for extended periods of time in the project's field of competitions. They lacked a higher refereeing grade and a common understanding of the standards, particularly in the projects involving teaching skills, coaching skills, and sports skills (gymnastics, wushu), where performance was evaluated using inconsistent standards. This has caused significant disparities in grading even within the same program, as well as inconsistent grading standards among refereeing teams in different programs. This has severely damaged the motivation of participating organizations and students and raised doubts about the fairness of the basic skills competition.

3 Basic Skills Competition Reform Path

Fundamental Skills In order to train more high-quality physical education practitioners in universities, middle and elementary schools, and to promote high-quality reform and connotative development of the physical education profession, competition has gradually become a regular event for physical education majors in colleges and universities. It can not only demonstrate the athletic prowess of students in these institutions and the level of physical education teaching, but it can also assess the quality of physical education majors in these

institutions and the level of school administration[17].

3.1 Optimize the content and weighting of points in the basic skills competition

The training direction and performance of the participating units and participants have a direct impact on the competition content and score weight. Improving the basic skills competition's content and scoring weight is a crucial step in raising the standard and leveling the playing field. Innovation and usefulness should be emphasized in one of the optimization contest's topics [18]. The purpose of the basic skills competition is to evaluate the competitors' fundamental skills and professionalism. The competition's material should closely align with real-world requirements and represent the most recent advancements in the physical education teaching field. Innovative competition things can also be implemented at the same time to encourage participants' ingenuity and resiliency[19]. Second, fairness and orientation must be reflected in the score weight adjustments. To guarantee that the distribution of scores is fair and appropriate, the level of difficulty and significance of each competition item should be carefully taken into account when determining the score weights. By changing the point value, participants can be encouraged to focus more on developing fundamental, all-encompassing skills while also fostering their creative and practical abilities. The participants' comments and ideas should also be taken into consideration during the optimization phase, as they provide valuable reference material for improving the competition's content and score weights. Optimizing the basic skills competition's content and score weighting is a methodical process that calls for careful score weighting and competition content adjustments to guarantee that the competition is both difficult and equitable.

3.2 Establish a scientific selection mechanism for participating students

To guarantee that students who are genuinely broadly representative can be chosen to compete, the selection mechanism addresses a number of topics, including selection criteria, selection process, supervision mechanism, etc. First and foremost, the selection criteria ought to be precise and thorough. To guarantee that the chosen students can adjust to the demands of the basic skills competition, the selection criteria should be up to date and modified in accordance with the competition's topic and the features of contemporary requirements. Second, there should be transparency and openness in the selecting process. To guarantee the impartiality and fairness of the selection process, each link—from enrollment to preliminary selection, reelection, and finalizing the list of participants—should have explicit norms and operational processes. Furthermore, a monitoring system is an essential component. To oversee the entire selection process, a separate committee or supervisory organization should be established. In order to continuously enhance the selection process, a feedback mechanism should also be set up to gather and promptly address the comments and ideas of students. In addition to choosing representative students to participate, a scientific selection process can pique students' interest and inspire their creativity. We can only encourage the ongoing growth and advancement of the school's basic skills competition by guaranteeing the fairness and openness of the selection procedure.

3.3 Strengthening the objectivity of the performance judging standard

The legitimacy and impact of the basic skills competition are also impacted by the objectivity of the achievement grading standards, which are directly tied to the ability to objectively assess the competitors' efforts. In order to prevent ambiguity or subjective presumptions, the judging criteria should, first and foremost, be precise and unambiguous. To guarantee the thoroughness and precision of the judging, the judging criteria ought to encompass every multi-level indicator needed for the competition. Second, in order to strictly standardize the scoring scale and standard, the referee team should simulate the scoring numerous times and conduct business training both before and during the game. Then, the judging process should be transparent and open, strengthening the "open door adjudication." To guarantee the justice and impartiality of the judging, the procedure should be overseen from a number of angles. In

order to verify and validate the judging findings, a third-party machine can also be added to simulate scoring as a reference for scoring, particularly for the more contentious areas of coaching skills, teaching abilities, and sporting skills like wushu and gymnastics. To guarantee that the competition is fair, equal, and transparent, it is crucial to strengthen the objectivity of the standards used to evaluate the results.

- **4.** Basic Skills Competition Implications for the Reform of Physical Education Teaching in Colleges and Universities
- **4.1** The significance of enhancing the fundamental instruction of different sports in colleges and universities: strong foundational skills are always the first step toward success, and sports education reform should emphasize the significance of teaching fundamental skills and physical fitness to students at a young age.
- **4.2** College and university physical education instruction should improve students' practical and application skills: The basic skills competition is a valuable venue for showcasing and evaluating the quality of college and university physical education instruction. It shows that physical education instruction should not only remain at the theoretical level but should also be more integrated with practice, allowing students to practice and develop their overall skills in a real competition setting in order to advance to a higher level[20].
- **4.3 Presenting a competition mechanism to boost college and university physical education students' willingness to learn:** the basic skills competition is a form of competition in and of itself. This competitive process can be used to improve physical education instruction, establish a system of rewards and penalties, develop students' psychological well-being and stress tolerance, and increase their willingness to learn.

5. Conclusion

By "promoting training and evaluation through competition," the Basic Skills Competition for Physical Education Majors in General Colleges and Universities in Chongqing is a significant initiative to enhance the reform of physical education in colleges and universities. It also serves as a test of the teaching proficiency of physical education majors and the caliber of talent cultivation. The basic skills competition currently needs to be refined in terms of the competition items and score weighting, as well as the consistency of the student selection process and judging standards. The aforementioned issues will skew the assessment of physical education majors' basic skills. Therefore, the basic skills competition will become a brand event of physical education in colleges and universities, promote the teaching reform of physical education majors in colleges and universities, and improve the quality of physical education majors in Chongqing Municipality by optimizing the content and weighting of scores, establishing a scientific mechanism for selecting participating students, and strengthening the objectivity of judging standards.

Disclosure:

Authors' contribution:

Conceptualization: Guangxin Cheng, Zhongchen Zhang, Zhiming Shi Methodology: Guangxin Cheng, Zhongchen Zhang, Zhiming Shi

Check: Guangxin Cheng, Zhongchen Zhang, Zhiming Shi

Formal Analysis:Guangxin Cheng Investigation:Zhongchen Zhang

Resources: Guangxin Cheng, Zhongchen Zhang

Data Curation: Zhiming Shi

Writing-Rough Preparation: Guangxin Cheng

Writing-Review and Editing: Zhongchen Zhang, Zhiming Shi

Visualization: Guangxin Cheng Supervision:Zhongchen Zhang Project Administration:Zhiming Shi All authors have read and agreed with the published version of the manuscript.

Funding statement: This paper received funding from the following institutions: the Ministry of Education Industry-University Cooperation Collaborative Education Project(230902371264520); Chongqing Social Science Planning Youth Project (2023NDQN43); General Project of Education and Teaching Reform Research at Southwest University(2024JY087); General Project of Experimental Technology Research at Southwest University(SYJ2025032).

Institutional review board statement:

Not applicable.

Informed consent statement:

Not applicable.

Data availability statement:

Not applicable.

Conflict of interest:

The authors declare no conflict of interest.

Reference

- [1]Zhang Yinglong, Hu Wei Preliminary exploration of the structure of the Basic Skills Competition for Physical Education Majors in Shaanxi Province Shaanxi Education (Higher Education). 2021;01),67-68+74. http://dx.doi.org/10.16773/j.cnki.1002-2058.2021.01.033
- [2]Bu Hongbo, Wang Shuming Theoretical understanding, practical examination, and optimiz ation strategies of "micro courses" in the Basic Skills Competition for Physical Educatio n Majors Sports Journal. 2022;29(03),126-131.http://dx.doi.org/10.16237/j.cnki.cn44-14 04/g8.2022.03.009
- [3]Luo Yashan, Huang Shangjun Empirical analysis of the impact of the Basic Skills Competition on the learning attitude of sports major students Athletics.2024;12),74-76.
- [4]Liu Xiaohui, Huang Dongwei, Zhang Maolin Statistics and Analysis of the Results of the F ourth Guangdong Provincial Basic Skills Competition for Physical Education Majors T aking the Huizhou University Representative Team as an Example Journal of Huizhou U niversity,2021;41(03),75-82.http://dx.doi.org/10.16778/j.cnki.1671-5934.2021.03.014
- [5] Huang Yongfei Research on the National Basic Skills Competition for Physical Education Majors in Colleges and Universities Sports Culture Guide. 2015;12),148-153.
- [6]Master Wang Kai Optimization Research on the Basic Skills Competition for Physical Edu cation Majors in Guangdong Universities under the Background of the New Era Sports B outique.2022;41(03),9-11.
- [7]Xia Jianchao, Pei Yongqing, Zhu Xiangyu Comprehensive Analysis of the First Basic Skill s Competition for Physical Education Majors in Guizhou Province Contemporary Sports Technology,2021;11(35),173-177.http://dx.doi.org/10.16655/j.cnki.2095-2813.2103-157 9-6229
- [8]Zhang Bin, Yao Lei, Zhao Shengguo Comprehensive analysis and development strategy of the results of the National College Physical Education Major Basic Skills Competition taking the 2019 College Basic Skills Competition as an example Journal of Chaohu Univ ersity, 2020;22(03), 119-130.
- [9]Wu Chenxi, Liu Shuang, Li Kaixiang Comprehensive analysis of the results of Jiangxi Province's universities participating in the National Basic Skills Competition for Physical Education Majors Sports Goods and Technology, 2018; 24), 105-106.
- [10]Zuo Hui, Liu Mengli Analysis of the First Basic Skills Competition for Physical Educatio n Majors in Guizhou Province's Universities Sports Technology.2021;42(06),124-126.htt p://dx.doi.org/10.14038/j.cnki.tykj.2021.06.026
- [11]Xiang Fengli Research on the Current Situation and Countermeasures of Lecture Teachin g in Physical Education Major at Jianghan University: Based on the National Basic Skills

- Competition for Physical Education Majors in Colleges and Universities Sports Technol ogy Literature Bulletin 2019;27(08),87-89+104.http://dx.doi.org/10.19379/j.cnki.issn.10 05-0256.2019.08.040
- [12] Huang Yuancheng Research on the Current Situation and Countermeasures of the Basic S kills Competition for Physical Education Majors: A Case Study of Ordinary Universities in Shandong, Jiangxi, Jiangsu, Hunan, and Guangdong Provinces Journal of Harbin Instit ute of Physical Education, 2017;35(02),67-74.
- [13] Huang Qiaoxian, Hu Xianglian Comprehensive analysis of the Basic Skills Competition f or Physical Education Majors in Guangdong Province Sports Journal, 2019;26(03),128-1 32.http://dx.doi.org/10.16237/j.cnki.cn44-1404/g8.2019.03.017
- [14]Xu Guozhong Reflection on the Functional Value of the National Basic Skills Competitio n for Physical Education Majors Journal of Capital Institute of Physical Education.2007; 02),108-110.
- [15]Zhou Mengtian, Li Ying Problems and Countermeasures in the National Basic Skills Competition for Physical Education Majors in Colleges and Universities Journal of Hebei North University (Social Sciences Edition).2023;39(05),85-88+94.
- [16]Li Dongyu, Li Wenmin, Liang Kun, etc Analysis of the Reform Path of Basic Skills Competition for Physical Education Majors in Guangdong Province Sports Technology. 2024; 45(02),126-128. http://dx.doi.org/10.14038/j.cnki.tykj.2024.02.002
- [17] Wang Meng The National Basic Skills Competition for Physical Education Majors in Uni versities was held at Tianjin Sport University, promoting teaching, learning, training, and education through competitions Chinese School Physical Education, 2019;08),24.
- [18] Wang Qingbo, Chai Weili, Xia Hanmei Exploration of Strategies for Improving Simulate d Teaching Skills of Physical Education Normal Students: Based on the Jiangsu Province Normal Student Teaching Basic Skills Competition Journal of Ezhou University,2021; 2 8(02),90-92.http://dx.doi.org/10.16732/j.cnki.jeu.2021.02.030
- [19]Zhou Mengtian Comprehensive Study on the National Basic Skills Competition for Physical Education Majors in Colleges and Universities Mass standardization. 2020; 11),66-67.
- [20]Zheng Jianwen, Huang Minghao, Chen Zhangyu Analysis of the Competitive Status of B asic Skills Competition in Physical Education Major Taking Undergraduate Universitie s in Fujian Province as an Example Journal of Fujian Normal University Fuqing Branch, 2018;05),92-99.
- [21]Duan Ruirui Research on the Impact of Jiangsu Province Sports Education Professional B asic Skills Competition on Talent Cultivation in the School of Physical Education, Yang zhou University Contemporary Sports Technology,2021;11(16),218-220.http://dx.doi.org/10.16655/j.cnki.2095-2813.2010-1579-1217
- [22] Jiang Shelley Analysis of the Basic Skills Competition Project Setting for Physical Education Majors in Higher Education Institutions under the Background of Teacher Education Certification Journal of Heilongjiang Institute of Technology (Comprehensive Edition). 2020;20(06),13-18.http://dx.doi.org/10.16792/j.cnki.1672-6758.2020.06.003
- [23] Chen P.Influence of special teaching mode on effect of physical education in colleges and universities. Basic & Clinical Pharmacology & Toxicology. 2020;126,354-354.
- [24]Duan F.Application of multimedia technology in pe teaching in colleges and universities.I nternational Journal of Information and Communication Technology Education.2024;20 (1),10.4018/ijicte.350184
- [25]Gao Y.The effect of online and offline sports safety education combined with mooc platforms in physical education teaching in colleges and universities. Scalable Computing-Practice and Experience. 2023;24(3),585-596. http://dx.doi.org/10.12694/scpe.v24i3.2285
- [26]Han Q.Using neural network for the evaluation of physical education teaching in colleges and universities. Soft Computing. 2022;26(20),10699-10705. http://dx.doi.org/10.1007/s00

- 500-022-06848-9
- [27]Hou W,Li LXing S.Design of physical education teaching in colleges and universities bas ed on emotional education under the environment of internet sharing information. Frontie rs in Psychology. 2022;13)10.3389/fpsyg. 2022.1030038
- [28]Hu C.Evaluation of physical education classes in colleges and universities using machine learning.Soft Computing.2022;26(20),10765-10773.http://dx.doi.org/10.1007/s00500-02 2-06983-3
- [29] Huang K.Research on the reform of the physical education in colleges and universities un der the strategy of healthy china. Basic & Clinical Pharmacology & Toxicology. 2020;127, 172-173.
- [30]Li ZWang H.The effectiveness of physical education teaching in college based on artificia 1 intelligence methods. Journal of Intelligent & Fuzzy Systems. 2021;40(2),3301-3311. htt p://dx.doi.org/10.3233/jifs-189370
- [31]Liu G.Innovation and development of physical education in colleges and universities from the perspective of positive psychology. Psychiatria Danubina. 2022;34,S385-S386.
- [32]Lu LZhang H.Reform and practice of physical education in colleges and universities from the perspective of educational psychology. Psychiatria Danubina. 2022;34,S227-S228.
- [33]Luo X.Quantitative analysis on the evaluation indicators of teaching abilities of physical e ducation teachers in colleges and universities. International Journal of Emerging Technol ogies in Learning. 2021;16(18),143-155. http://dx.doi.org/10.3991/ijet.v16i18.25661
- [34]Sha L.Development of the evaluation and testing system of physical education in colleges and universities: Based on the idea of artificial intelligence. Basic & Clinical Pharmacolo gy & Toxicology. 2020;127,192-192.
- [35]Yang CGao Z.Analysis of dynamic modeling of the evaluation system of physical educati on teaching quality in colleges and universities based on cognitive psychology. Psychiatri a Danubina. 2021;33,S157-S158.
- [36]Yang WLi C.Quality evaluation of physical education in colleges and universities based o n fuzzy logic. Journal of Computational Methods in Sciences and Engineering. 2024;24(1), 165-181. http://dx.doi.org/10.3233/jcm-237029
- [37]Zhang L.Construction of evaluation indicator system of college physical education teaching environment based on analytic hierarchy process. Computational Intelligence and Neuroscience. 2022;2022,10.1155/2022/4148866
- [38]Zhang L.Construction of evaluation index system of specialized teaching effect of physic al education in universities.International Journal of Knowledge Management.2024;20(1), 10.4018/ijkm.356634
- [39]Zhang P,Chen LHao Z.The integration of physical education and psychological health ed ucation in colleges and universities. Psychological Reports. 2024;127,55-56.