Research on the Path of Team Building and Mechanism Innovation of Public Physical Education Course Teaching of University*

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Abstract—Against the background of the "double first-class" construction of Northwest University, and under the development opportunity of deepening and improving the teaching quality of undergraduate education and implementing the reform of the complete credit system, this study holds that the reform of public physical education curriculum in colleges and universities should innovate the operation mechanism, management mechanism and assessment mechanism, give full play to the leading role of teaching teams, strengthen team effectiveness, strengthen teachers' principal role and personal responsibility, and carry out the fundamental task of strengthening moral education and cultivating people and the educational concept of health first.

Keywords—public physical education; teaching team; mechanism; path

I. INTRODUCTION

With forty years of reform and opening up, the high attention of the government and the improvement of the institutional framework, China's higher education has achieved fruitful results. However, physical education is relatively lagging behind, and the growth of college students' physical health level is slow. Two serious problems still need to be overcome and solved. In 2007, in order to promote and implement the "Teaching Quality and Teaching Reform Project in Colleges and Universities", the Ministry of Education established the "Teaching Team" construction as one of the new measures and key construction projects to improve the quality of teachers, strengthen the comprehensive teaching ability of disciplines and ensure the quality of education and teaching for the first time. [1] Building a group of teaching teams with high teaching quality and reasonable structure, forming efficient teamwork mechanism, promoting teaching discussion and exchange of teaching experience, and developing teaching resources have become the development direction of higher education teaching reform and improvement of teaching quality in China. [2] In response to the national policy, Northwest University began to implement the "Undergraduate Teaching Quality and Teaching Reform Project" in November 2007, strengthening the cultivation of famous teaching teachers and the construction of teaching team, and focusing on training the innovative quality and practical ability. In 2016, in order to promote the implementation of major series of initiatives of the provincial party committee and provincial government on the reform and development of higher education and achieve the construction goal of "first-class undergraduate education", Northwest University began to implement the "Improvement Plan of Undergraduate Education Quality of Northwest University", planned to implement the "1239 Project" of first-class undergraduate education with the main line of "strengthening classroom teaching, practical teaching and actively extracurricular teaching", and complied with the trend of curriculum reform of "striving for double first-class and implementing complete credit system". The department of physical education teaching and research has carried out drastic reform of public physical education teaching, and the construction of "teaching team" is one of the important contents of curriculum reform. Professor Wang Zhengbin, Vice-President of Northwest University, said: "The construction of teaching team is a pioneering work in the process of higher education reform in recent years in China, and its significance is positive and far-reaching."

II. THEORETICAL BASIS

How to make every teacher find a sense of belonging in the department of physical education, truly embody his main position, and make scattered individual behavior become a collective force of dedication and commitment, undoubtedly,
the team of teachers can better play and enhance the ability of collective combat, effectively implement the development ideas and practical operation of the department of education teaching and research. Teachers with high efficiency and having the same project should be selected to form a team, give full play to their personal expertise and potential in curriculum reform, and interact with each other in team building, so as to promote the cohesion of team members and improve team effectiveness (As shown in "Fig. 1"). [3]

![Fig. 1. Evolution of Jewell and Reite team effectiveness models.](image)

**III. TEAM STRUCTURE AND CURRICULUM DEVELOPMENT GOALS**

Through the research of this subject, the author explores the role orientation of public physical education curriculum under the double-class construction in colleges and universities. The colleges and universities should construct a perfect team system of physical education teaching, achieve top-level design in construction and planning, make accurate evaluation of project approval, scientific management in construction objectives and tasks, constantly innovate in operation mechanism, grasp long-term effectiveness and complement shortcomings through team cooperation, update teaching concepts, optimize teaching contents, innovate teaching methods, and promote the teaching quality of undergraduate education, the level of in-school and out-of-school competitions and the culture atmosphere of physical education. (As shown in "Fig. 2" and "Fig. 3")

![Fig. 2. Physical education curriculum framework under the guidance of teaching team of Northwest University.](image)
As early as in 2008, the department of physical education teaching and research of Northwest University completed the initial construction of provincial top-quality basketball course with the help of the development advantages of high-level basketball teams and excellent teachers. In recent years, the teachers of the department of physical education teaching and research have declared and completed a number of teaching reform projects in track and field, archery and dancing. On this basis, four teaching teams, namely basketball, track and field, archery and aerobics, have been formed. Athletics and aerobics have always been the traditional events of Northwest University, and have achieved excellent results in Shaanxi Province and national competitions. Under the environment of “giving up eating for fear of choking” caused by boring track and field courses and sudden death in long-distance running classes in some colleges and universities in China, Northwest University continues to retain middle and long-distance running courses, and reforms teaching methods and means on this basis, so as to continuously improve students' physique. Aerobics of Northwest University has always been enjoyed by the students. The annual aerobics competition of the colleges and departments has a wide spread effect in the health cup competitions of colleges and universities. On this basis, the university will continue to expand the resources of teachers and the total amount of projects, integrate the courses of fitness, bodybuilding, sports and dance, and set up a teaching team of gymnastics and dance. Archery project is a relatively fashionable item in the curriculum system of colleges and universities in recent years. Northwest University took the lead in launching archery course in colleges and universities of Shaanxi Province in 2014, hired famous teachers to teach in schools, and organized training courses for archery coaches of teachers in colleges and universities of Shaanxi Province, and led the extensive development of archery course in colleges and universities of Shaanxi Province. (As shown in “Table I”)

IV. CURRENT SITUATION OF THE CONSTRUCTION OF TEACHING TEAM

As early as in 2008, the department of physical education teaching and research of Northwest University completed the initial construction of provincial top-quality basketball course with the help of the development advantages of high-level basketball teams and excellent teachers. In recent years, the teachers of the department of physical education teaching and research have declared and completed a number of teaching reform projects in track and field, archery and dancing. On this basis, four teaching teams, namely basketball, track and field, archery and aerobics, have been formed. Athletics and aerobics have always been the traditional events of Northwest University, and have achieved excellent results in Shaanxi Province and national competitions. Under the environment of “giving up eating for fear of choking” caused by boring track and field courses and sudden death in long-distance running classes in some colleges and universities in China, Northwest University continues to retain middle and long-distance running courses, and reforms teaching methods and means on this basis, so as to continuously improve students' physique. Aerobics of Northwest University has always been enjoyed by the students. The annual aerobics competition of the colleges and departments has a wide spread effect in the health cup competition of university. On this basis, the university will continue to expand the resources of teachers and the total amount of projects, integrate the courses of fitness, bodybuilding, sports and dance, and set up a teaching team of gymnastics and dance. Archery project is a relatively fashionable item in the curriculum system of colleges and universities in recent years. Northwest University took the lead in launching archery course in colleges and universities of Shaanxi Province in 2014, hired famous teachers to teach in schools, and organized training courses for archery coaches of teachers in colleges and universities of Shaanxi Province, and led the extensive development of archery course in colleges and universities of Shaanxi Province. (As shown in “Table I”)

### TABLE I. TIME FOR TEACHING TEAM TO SET UP PROJECT

| Team name          | Time of setting up the project | Level     |
|--------------------|-------------------------------|-----------|
| Basketball         | 2008                          | Provincial level |
| Track and Field    | 2013                          | school level |
| archery            | 2015                          | school level |
| bodybuilding exercise | 2019                      | school level |

A. Current Situation of the Construction of Teaching Staff

The department of physical education teaching and research now has 45 teachers, including 3 professors, accounting for 6.7% of the total number of teachers; 20 associate professors, accounting for 44.4% of the total number of teachers; 16 lecturers, and 6 assistants, with 86.7% of the total number of teachers having professional titles above lecturers. The department of physical education teaching and research currently has 1 international referee and 5 national referees. The projects are orienteering, track and field, football, volleyball, badminton, fitness and bodybuilding. There is 1 teacher with doctoral degree, 4 teachers with on-the-job doctoral degree, 25 teachers with master degree, accounting for 66.7% of teachers with master degree or above. The physical education teaching team of basketball, track and field, archery, gymnastics and sports dance accounted for 55.6% of the total number of teachers. Team members mostly concentrated on the events of basketball, aerobics and traditional track and field. In recent years, the department of physical education teaching and research has opened up a wide range of channels and encouraged young teachers to participate in after-service training and study visits. Teachers have successively travelled to Britain, France, the United States, Taiwan and
Hong Kong for training and exchange, which has greatly broadened the academic horizon of young teachers and enriched the theoretical level and practical ability of teaching and scientific research.

B. Teaching Research and Scientific Research Development

From 2017 to 2019, the Northwest University implemented "Improvement Plan of Undergraduate Education Quality", the number of projects set up by the department of physical education teaching and research is 148, 179 and 206, respectively. The total number of projects set up by the department of physical education teaching and research in three years is 16, accounting for 3% of the total number of universities, and the number of educational reforms is lagging behind. During the period of 13th Five-Year Plan, two school-level teaching achievements and one provincial-level teaching achievement were obtained; two first-class prizes were awarded in the lecture competition of Northwest University, and there were one school-level teaching expert and one teaching practice expert; and two excellent prizes were awarded in lecture competition of Shaanxi Education Department. Since 2015, members of the research group have presided over and participated in 10 teaching reform projects at or above the school level, including 2 key projects at the school level, and the teaching material of Physical Education and Fitness has been approved by the Academic Affairs Office of Northwest University. The department of physical education teaching and research presided over and participated in one national project, five provincial and ministerial projects, and seven bureau-level projects. The department of physical education teaching and research has won one third-class prize for scientific achievements at the provincial and ministerial levels, two third-class prizes for outstanding achievements in humanities of colleges and universities in Shaanxi Province, and three first-class prizes for scientific achievements of Shaanxi Sports Bureau. It has won many prizes at the national conference on scientific papers of competitive sports, the national fitness congress and the national seminar on track and field development.

C. Physical Education Competition Achievements and Extracurricular Activities

The basketball team and track and field team of Northwest University used to be high-level physical education team in Shaanxi Province and have excellent performance in the national competition of college students. In 1996, Basketball Team of Northwest University, representing Shaanxi Province, won the championship of Group A of the Fifth National University Games, and the championship of Class B in the first China University Basketball League (CUBA) in 1998. The track and field team of university has won many excellent results in the national competition of college students. Since the 13th Five-Year Plan, Northwest University has comprehensively deepened the reform of undergraduate education and teaching, implemented the complete credit system, and took the lead in encouraging the department of physical education teaching and research to carry out the reform of public physical education curriculum, and increased the investment in physical education funds. All members of the department of physical education teaching and research have been united in one heart and attacked at many items. They have achieved remarkable results in aerobics, wrestling, orientating, outdoor and archery competitions. With the development of track and field courses and the strengthening of track and field teachers, the total team score in Track and Field Competition of college students in Shaanxi Province has entered the top eight, and won the championship and the two second places in the national competition of track and field of college student. As a traditional sport of Northwest University, the Aerobics Team has always been in the top position in provincial competitions. In 2017 and 2018, it won 10 national championships, 6 second place and 4 third places. A number of students have participated in campus orienteering races, ring road relay races, sports and cultural festivals, track and field games and other intramural competitions and extramural marathons. In 2019, the students carried out the reform of track and field games, and the students held their own events. Many students moved from theory teaching to practice testing, exercised and improved their social practice ability. The League Committee organized students to participate in the volunteer service of the 2018 Xi'an International Marathon and the 2019 Chang'an University Marathon, whose good professionalism and vigorous spirit fully demonstrated the school motto of honesty, diligence and simplicity and strongly propagated the image of Northwest University. In 2018, the activity of "classic match of fitness and bodybuilding" entering into campus entered the Chang'an campus of Northwestern University. It also fully demonstrated that the fitness and fashion curriculum of Northwestern University had achieved certain results and effects. (See "Table II")
V. PROBLEMS IN THE CONSTRUCTION OF TEACHING TEAM

A. Lack of Top-level Design, Long-term Planning, Flexible Administrative Mechanism, and In-depth Research Capacity

The teaching team is independent. Whether at the administrative level of the department of physical education teaching and research or in the internal construction of the team, there is a lack of top-level design, no long-term development plan or clear development goals. They just complete the project, and have no idea to make the teaching team bigger and stronger. The teaching team is only a symbol applied by some teachers of the department of physical education teaching and research. The department of physical education teaching and research has not taken the construction of teaching team as a major grasp in the reform of undergraduate public physical education curriculum. The three-independent teaching reform is still project-centered. The leaders of the department of physical education teaching and research are in charge of the overall work. The simplification and decentralization of government is not enough, and the curriculum reform can't be more in-depth refined. The teaching team lacks leadership rights, can't deeply refine and implement the teaching mission of the team. The operation of the large and traditional management mechanism can only achieve superficial curriculum reform, and lack in-depth study of the core theoretical and practical issues in curriculum reform.

B. Weak Culture Construction Foundation of Teaching Team: Lack of the Platform Support, and Limited Team Development Research

The profound cultural connotation of physical education events is the source of the continuous expansion and development of teaching teams. The teaching team lacks financial support. In the era of "Internet + big data", how to identify various sports and cultural resources and enrich learning and team culture in a timely and effective way is a condition for every member of the teaching team to learn effectively. According to the annual physical education maintenance fee, the department of physical education teaching and research makes some teachers go out for training and timely access to the latest information and resources. In 2019, due to the financial system, the source of funds for teachers' study and training has been limited. How does the department of physical education teaching and research expand the path of teachers' continuing education after service, communicate and coordinate with the Administration Office and the Teacher Development Center, and implement the source of funds? The department of physical education teaching and research of Northwest University has applied for Wushu Culture Center and Basketball Research Center at the University level. However, how to use the research platform to strengthen the teaching theory research of the project team and instill the research results into the teaching practice timely and effectively? The basketball and Wushu have not done enough, and there is no long-term teaching plan and goal.

C. Insufficient Cohesion Within the Teaching Team, Unclear Development Goals and Slow Improvement of Teaching Quality

There are three main modes of traditional teaching organization. One is the teaching and research room, which is classified according to the big ball, small ball and other categories, mainly differentiating the big management. However, it can't be further refined and expanded in the project research. The other is the form of physical education club, which takes the project as the center to set up various sports clubs, so that students can choose independently, and students' interests can be satisfied. However, teachers lack communication with each other, and there is lack of in-depth theoretical research or clear objectives. Third is teaching team settings. The team settings can better combine the characteristics of the project to make in-depth research. At the same time, it can strengthen the cohesion and affinity between teachers, and constantly improve the overall theoretical level and practical ability of teachers. At present, the teaching teams of calisthenics, archery and track and field lack further development goals, even if they lack unity in practice. The understanding of new things is limited to a certain extent. The traditional teaching form still occupies
the dominant position of the department of physical education. The innovative ability of the curriculum is not enough. The new curriculum forms, such as flipping class and MOOCs, lack timely and effective understanding. At present, only one SPOC is applied for in basketball course.

D. Emphasis on Practice While Neglecting Theory: Disconnection of Teaching and Research, and Having No Landmark Achievements

From Humboldt's idea of "unification of teaching and scientific research" in modern times to the global spread of modern American research-oriented university model, the integration of teaching and scientific research has become the core of modern university education. [4] From the historical development of the department of physical education teaching and research of Northwest University, the teaching of public physical education has always occupied a very important position. It is not inferior to the undergraduate teaching in Shaanxi Province and even in the whole country. It also reflects the development concept of the undergraduate teaching of Northwest University that is "based on this, health first". However, the emphasis on practice and the neglect of theory are the shortcomings of undergraduate teaching reform, lacking of practical summary, insufficient depth of theoretical guidance, and lack of symbolic teaching results. In the new era, how to strengthen the guiding force of the teaching team, integrate the advantages and resources of each teaching team, coordinate operations, guide teaching practice with high-quality theoretical results, make teaching and scientific research fly together in the construction of "first-class" of Northwest University, and strive to achieve the results of undergraduate teaching reform in Shaanxi Province and even in the whole country will be an urgent problem facing the department of physical education teaching and research.

VI. EXPANDING THE MECHANISM INNOVATION PATH OF TEACHING TEAM

A. Having Top-level Design and Scientific Guidance and Strengthening the Dominant Position of Teaching Team

In January 2018, the General Administration of Sports, the Ministry of Education, the Central Civilization Office, the Development and Reform Commission, the Ministry of Civil Affairs, the Ministry of Finance and the Central Committee of the Communist Youth League jointly issued the Youth Sports Promotion Plan. The Plan points out that it is necessary to vigorously develop youth football and promote the popularization and improvement of youth ice and snow sports. In July, the General Office of the Ministry of Education issued the Notice on the Adjustment of Construction Projects of High-level Sports Teams in 2018. The universities undertaking four projects, namely judo, chess and cards, rock climbing and wrestling, will stop enrolling students in 2019. And it encourages them to carry out more popular project adjustments to universities such as football.

On the basis of bidding for the construction of two high-level teams of football and ice and snow, Northwest University concentrates human and material resources of the department of physical education, establishes a school-level teaching team, gives full play to the leading role of teaching projects, enhances the participation of ordinary students in the course learning of the project, and enhances the popularity of this project for ordinary students. At the same time, with the strong atmosphere of campus basketball and the integration of resources, it establishes a basketball teaching team. The department of physical education teaching and research of Northwest University has formed six teaching teams: basketball, football, track and field, ice and snow, dance and national sports.

B. Improving Students' Comprehensive Quality in an All-round Way with the Concept of Strengthening Moral Education and Cultivating People and the Concept of Health First

Education booms the country. To train socialist builders and successors with all-round development of morality, intelligence, physical fitness, beauty and labor, it is necessary to give full play to the guiding role of education, give full play to the educational significance of "building up morality and cultivating people", and comprehensively improve the comprehensive quality of students. The physical education of university plays an important basic role in personnel training. In June 1999, the Decision of the State Council of the Central Committee of the Communist Party of China on Deepening Educational Reform and Promoting Quality Education in an All-round Way put forward that school education should establish the guiding ideology of "health first" and strengthen physical education. In the report of the Eighteenth National Congress of the Communist Party of China, for the first time, it is proposed that "the fundamental task of education is to cultivate the socialist builders and successors with all-round development of morality, intelligence, physique and beauty". At the 2018 National Education Congress, President Xi Jinping emphasized that "the physical education curriculum in colleges and universities should be regarded as an important carrier of "building morality and cultivating people" and firmly establish the educational concept of "health first".

C. Improving Team Effectiveness with Internal Governance, Mechanism Innovation and System Perfection

It is necessary to weaken the color of administrative management, improve the democratic management systems of the joint party-government meeting system, the teaching supervisory group and the academic committee, and the second-level teaching congress of the department of physical education teaching and research, and improve the implementation mechanisms of the leadership decision-making, discipline construction, specialty construction, personnel training and teacher team construction of the department of physical education teaching and research. It is necessary to strengthen the system construction, formulate a series of policies conducive to team development, such as "Teaching Team Management Measures of the department of physical education teaching and research of Northwest University" and "Teaching Team Evaluation System of the...
department of physical education teaching and research of Northwest University”, and improve the operation efficiency of teaching teams and the status of teaching subjects. The universities should also adhere to the shared development of teachers and students. The universities take the realization of human values as the basic orientation to promote shared development.

D. Constantly Strengthening the Construction of Teacher Strength with Talents Introduction and Teacher Training

The universities should strengthen the introduction of talents, combine with the overall reform idea and development plan of the school, coordinate communication with the personnel department, the educational administration department and other relevant departments. According to the characteristics of the physical education curriculum, the universities can formulate the “Implementation Measures for the Introduction of Talents” in the department of physical education teaching and research of Northwest University, and introduce or withdraw sports scholars who have curriculum-leading role for the teaching team. International and national athletes will take part-time jobs in schools to promote and enhance the teaching and research abilities of teaching teams and enhance their national influence. The universities should make use of their own resources, innovate the personnel training mechanism, strengthen the training of young and middle-aged teachers, and find and promote young and middle-aged teachers’ team leaders. At the same time, universities should continuously update their own knowledge reserves, and improve the level of teaching, professional knowledge and scientific research.

E. Docking the Overall Reform of Schools with Curriculum Innovation and Competition Support

It is necessary to strengthen the innovation of the curriculum system, expand the curriculum project on the basis of the original team, and increase the cohesion and influence of the curriculum system. On the basis of middle and long distance running courses and physical fitness courses, the track and field curriculum teaching team has incorporated the "quality and fat reduction course" into the track and field curriculum. At the same time, it is necessary to vigorously carry out the theoretical and practical teaching of "micro-marathon" course, and correctly guide students to participate in the fitness running. The callisthenics courses will be introduced into the curriculum construction. With the completion of the swimming pool, gymnastics projects in the water can be opened. The universities can expand the extension of archery, integrate traditional national sports such as Wushu and Taiji, build the brand of traditional national sports team and enhance its influence. The universities encourage the combination of MOOC construction and teaching reform, and take the teaching team as the carrier for MOOC construction.

Competition is the endogenous motive force to stimulate students’ physical exercise, and the goal of physical education is to achieve the four-in-one goal of enjoying fun, enhancing physical fitness, improving personality and tempering will. In recent years, all kinds of universities at all levels have taken the campus physical education competition as the grasp of school physical education. The competition system among colleges, departments and classes has been constantly improved. The normal and systematic development of the campus physical education competition has stimulated students to actively participate in sports fitness. Wang Dengfeng, Director of the Department of Sports Health and Art Education of the Ministry of Education of China, put forward that the direction of physical education reform is to establish sports competitions for all.

F. Coordinated Development of Teaching and Scientific Research with the Combination of Theory and Practice

Under the framework of the reform of the complete credit system of Northwest University and the favorable development opportunity provided by the school to deepen the plan of improving the teaching quality of undergraduate education, the department of physical education teaching and research should plan as a whole, fully develop the role of the teaching supervision group and academic committee, take the teaching team as the leading role, build a number of excellent teaching materials of high quality, and strengthen the theoretical guidance for the reform of education and teaching. Teaching practice and theoretical research are the foundation of teaching team. The enhancement of scientific research ability can effectively solve the problems in teaching and promote the improvement of teaching ability, and vice versa. The combination of teaching and scientific research can not only improve the teaching level and quality, but also promote the research results and the quality of academic research.

VII. CONCLUSION

A strong education makes a strong country. The physical education of university plays an important basic role in the educational system. Physical education is an important position to accomplish the fundamental task of "building morality and cultivating people". It is also the implemementer of the concept of education and teaching "health first". It is necessary to fully implement the concept of the 2018 National Education Congress. It also should set up the education concept of "health first" and open up enough physical education classes to help students increase their enjoyment in physical exercise, so as to strengthen physique, perfect personality, temper will, and improve students' physical and mental quality in an all-round way. Northwest University should deepen the undergraduate teaching reform of public physical education curriculum and profoundly highlight the main position and leading role of teaching team. The department of physical education teaching and research of Northwest University should dare to take the lead, make long-term planning and carry out top-level design. According to the resources of school venues, students' self-selection of courses and the human resources situation within the department, the department of physical education teaching and research should carefully build 3-4 core teaching teams to carry out curriculum reform and school
management. The reform of internal physical education competitions has contributed to the construction of double-class schools and the reform of the complete credit system.

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