

Pre-employment Education of Physical Education Teachers in Ethnic Local Universities Based on Teacher Education Certification

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Abstract: Based on the era background of teacher training professional certification, this paper analyzes the indicators such as the orientation of training objectives, employment status, curriculum system and condition guarantee of physical education majors in three colleges and universities in the western minority areas of Sichuan Province by using literature, interviews, mathematical statistics and other methods, and finds that there are the following problems: 1) The orientation of training objectives deviates from the original intention passively; 2) Low employment relevance reflects poor quality of training; 3) The curriculum system is difficult to support students' future needs; 4) The lack of conditions restricts the development of student movement ability. Corresponding countermeasures have been proposed to address the issues, hoping to provide reference for the evaluation and promotion of pre-service physical education teacher education in local universities in ethnic regions.

Keywords: teacher training certification, physical education, nation, local universities, analysis

1. Introduction

School education is an important measure to achieve educational revitalization, educational takeoff, and educational power, and an important venue for the transmission of human culture [1]. The level of school education depends on the quality of teachers [2]. In October 2017, the Ministry of Education issued the "Interim Measures for the Implementation of Teacher Education Professional Certification in Ordinary Higher Education Institutions", which decided to carry out teacher education professional certification starting from 2018 and published corresponding standards. In 2018, the Central Committee of the Communist Party of China and the State Council issued the "Opinions on Comprehensively Deepening the Reform of Teacher Team Construction in the New Era", as well as the notice from five departments including the Ministry of Education on issuing the "Action Plan for Teacher Education Revitalization (2018-2022)", both emphasizing the importance of teacher education and the direction of training. In 2020, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Opinions on Comprehensively Strengthening and Improving School Physical Education Work in the New Era", which set clear requirements for the allocation of physical education teachers.

Although primary and secondary schools in the ethnic minority areas of western Sichuan have achieved certain results with the help of the rural revitalization strategy, there are still obvious shortcomings in many aspects, the most prominent of which is the weak teaching staff. The three universities distributed in this region are responsible for cultivating applied talents for the local area, and the quality of their training plays an important role in the revitalization of education in ethnic regions. Therefore, under the guiding ideology of socialism with Chinese characteristics in the new era, based on the background of teacher certification and combined with the actual situation of universities in western ethnic areas of Sichuan, this study explores the practical problems of pre service physical education teacher education, analyzes the practical opportunities for talent cultivation, provides reference for the training of physical education teachers in western ethnic areas of Sichuan, and helps the rapid development of school physical education work in this region.

2. Analysis of the current problems of pre service physical education teacher education in ethnic minority areas in western Sichuan

2.1 Passive deviation of training objectives from the original intention of positioning

The concept of professional certification establishes a quality evaluation understanding centered on training objectives. The training objectives of physical education professionals can be divided into three dimensions: target positioning, target connotation, and target evaluation. Among them, target positioning is fundamental and determines the training direction of physical education majors [3]. Target positioning should handle two influencing factors: national and regional, school and major. By interpreting the talent cultivation goals, as is shown in Table 1.

Table 1: Talent training objectives for physical education majors in universities in ethnic minority regions of Western Sichuan

Name of university	Train objective
A University	Targeting ethnic areas in Sichuan and the surrounding areas of the Sichuan Basin, mastering modern education and teaching theories and methods, as well as the basic theories and methods of school physical education curriculum and teaching, extracurricular physical exercise and training competitions, possessing certain sports skills and good physical education and teaching abilities, and capable of being high-quality applied talents in middle school physical education work.
B University	Based in ethnic regions of Sichuan, serving Sichuan, and facing the southwest. Cultivate a school positioning that is in line with the college's ethnic, local, and applied characteristics, with a willingness to take root in middle school physical education and grassroots physical education work, serve basic education (vocational education), sports services, and other fields, comprehensively develop morality, intelligence, physical fitness, aesthetics, and labor, and high-quality applied sports workers.
C University	Based in ethnic areas of Sichuan Province, cultivate high school physical education teachers with strong application ability and strong innovation awareness. Having modern education and health concepts, firmly mastering the basic knowledge and skills of physical education and teacher education, capable of teaching and researching physical education and health courses, training and participating in sports teams, organizing and managing sports competitions, and managing classes.

Three universities have fully understood the national demand for physical education talent cultivation when determining talent cultivation goals, and the curriculum has followed the basic requirements of the 2018 National Standard for Undergraduate Professional Teaching Quality in Ordinary Higher Education Institutions issued by the Ministry of Education, clearly reflecting the requirements of "one practice, three societies". All three universities have designated Sichuan ethnic areas as service targets for the cultivation of applied talents. In their educational positioning, key words such as "being able to go down", "being able to stay down", and others have appeared, indicating their consistent position in Sichuan Province and the region, and expressing their vision of "cultivating excellent sports workers rooted at the grassroots level for ethnic areas". Through statistical analysis of the sources and destinations of 2022 graduates, it was found that the proportion of students from ethnic minority areas is relatively low, and the proportion of local employment is relatively low. The goal positioning of talent cultivation has passively deviated, as shown in Table 2.

Table 2: Statistical table of 2022 student source and graduation destinations of physical education majors in universities in the Western ethnic regions of Sichuan Province

Name of university	Number of Graduates	Number of students in ethnic regions	Proportion	Number of employed students in ethnic minority areas	Proportion
A University	218	18	8.26%	37	16.97%
B University	106	2	1.89%	9	8.49%
C University	256	54	21.09%	—	—

Firstly, analyze the source structure of students. After investigation, the admission method for physical education majors in all three universities is based on the provincial control line of 345 points, followed by admission in descending order of physical education scores. Interviews with frontline teachers from 8 senior high schools in the ethnic minority areas of western Sichuan revealed that the

vast majority of students' physical education scores can meet the admission line, but the core issue is that their cultural performance cannot meet the provincial control line standards. Although Sichuan Province has introduced relevant policies to provide varying degrees of bonus points for students in ethnic minority areas in terms of cultural performance, due to the weak basic cultural education, a large number of high school sports students are still unable to enter universities. Secondly, the role of cultivating ethnic education sentiment is not obvious. On the one hand, with the implementation of policies such as national poverty alleviation and rural revitalization, significant changes have taken place in the ethnic minority areas of western Sichuan. However, they still face challenges such as natural environment, living conditions, and medical security. The willingness of students from other regions to stay after graduation is not strong enough. On the other hand, all three universities have offered "Strengthening the Awareness of the Chinese National Community Education" and have also offered minority sports courses to varying degrees. However, due to insufficient national sports literacy and cultural understanding, the effectiveness of cultivating ethnic education sentiment is not satisfactory. The problem of local students in the ethnic minority areas of western Sichuan being easy to retain but unable to pass the exam, and students from other regions being able to pass but difficult to retain, has led to a passive deviation from the original intention of "national and local" in the positioning of training objectives, as shown in Table 3.

Table 3: The Offering of ethnic sports courses in universities in ethnic areas

Name of university	Offering courses	Maximum elective credits	Percentage of total credits
A University	Pearl Ball, High Foot Racing, Cuqiu, Cricket Racing, Handshuttlecock, Top, Tibetan Qiang Guozhuang, Tibetan Qiang Paiwu	4	2.4
B University	Sports ethnic dance, pearl ball, high foot racing, cudgel, cricket racing, betting, shuttlecock, top	8	4.8
C University	None	0	0

2.2 Low employment relevance reflects quality issues in training

The position of physical education teacher is mainly conducted through recruitment by public institutions, and the annual demand has a significant planned feature. With the continuous merger of rural schools, the demand for physical education teachers has also decreased. However, in 2020, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Opinions on Comprehensively Strengthening and Improving School Physical Education Work in the New Era", which clearly pointed out that "various regions should increase efforts to recruit primary and secondary school physical education teachers, and areas that are not fully equipped should allocate a certain proportion every year to recruit physical education teachers. The "Implementation Plan for Comprehensively Strengthening and Improving School Physical Education Work in the New Era" (hereinafter referred to as the "Implementation Plan") issued by the General Office of the Provincial Government also clarifies this requirement and proposes the "Implementation of the Plan for Supporting College Students in Physical Education to Help Ethnic Areas and Remote Mountain Areas Improve the Level of Physical Education." Currently, ethnic remote areas urgently need high-quality professional talents to solve the problem of high-quality education development. However, the lack of new teachers who are familiar with national culture and have local feelings [4] has led to the lack of professional supply of teachers in ethnic areas [5], which has become the biggest problem in the development of education in ethnic areas. Through interviews with the education and sports bureaus of 8 counties in a certain state, it was found that the "bottleneck" of teacher shortcomings in the implementation of the "Implementation Plan" within the county is very prominent. Therefore, physical education teachers in ethnic minority areas of western Sichuan still face a relatively large demand, but the employment situation of students majoring in physical education in three universities is not optimistic. For example, the total number of graduates from universities A and B in 2022 is 314, but 65 are working as physical education teachers, accounting for 20.06%. On the one hand, it is a consensus that the quality of physical education talent cultivation in Chinese universities is difficult to meet the needs of the economy and society, and a large number of employers complain that they cannot recruit high-quality talents. On the other hand, in the context of the national examination for teacher qualification certificates, the passing rate of teacher qualification certificates also limits students' ability to engage in the teaching industry. For example, the proportion of graduates from B University who obtained a teacher qualification certificate upon graduation in 2018 was 72.64%, which also reflects certain quality issues in talent cultivation [6]. Interviews with students revealed that

students majoring in physical education in the written examination program for teacher qualification certificates are generally struggling, which reflects the weak cultural foundation of the students admitted by the school during the enrollment process. On the other hand, it reflects the insufficient training of written examination subjects in the training process, mainly reflected in the theoretical aspects of basic education knowledge, this is closely related to the long-standing phenomenon of "valuing physical fitness over teaching" in the field of sports.

2.3 The curriculum system cannot support students' future needs

According to the working characteristics of middle school physical education teachers and the requirement of "one practice and three learning", it is very important to improve students' teaching ability in the process of training middle school physical education teachers in the new era. Due to the particularity of physical education major, students should not only have the ability of teaching design, but also have strong demonstration ability in the process of learning teaching. Therefore, the mastery of sports technology is an essential skill for students majoring in physical education [7]. According to the Curriculum Standards of Physical Education and Health in Compulsory Education and Professional Standards for Middle School Teachers, and combined with the textbooks of physical education and health for middle school students, a physical education teacher should have the teaching ability of football, basketball, volleyball, table tennis, badminton, track and field, gymnastics, martial arts, etc. The questions selected in the interview process of teacher qualification certificate basically belong to this scope. During the interview for the teacher qualification certificate, the author found that students had a prominent problem of "one specialty and multiple abilities", which was mainly manifested in that they could basically meet the requirements of explaining, demonstrating and demonstrating their "orientation elective courses" after the selection of test questions, but they generally did not perform well once they selected the content of other items. From the "special course" in 1980 to the "Orientation Elective course" in 2003, more than 40 years have passed, and the "special course" still ranks first in the talent training programs of physical education majors [8], which can also be reflected in the talent training programs of the two schools. As a grassroots middle school, the school cannot be equipped with physical education teachers of various events, so it needs physical education teachers to master sports skills of multiple events in order to carry out good teaching work. The old concept under the new name is still seriously restricting the pace of education reform of pre-service physical education teachers. Physical education teachers trained under the "project division mode" curriculum system [8] can hardly meet the needs of grassroots middle schools.

2.4 Insufficient condition guarantee limits the development of students' athletic ability

The physical education major has experienced rapid development with the enrollment expansion of higher education. The number of colleges and universities with physical education majors has increased from 250 in 2005 to 328 in 2021 [9]. According to the information released by the admission field of colleges and universities in Sichuan Province, 1,770 students of physical education were enrolled in 2010. By 2022, the number will be 7,727. Teachers' professional development and the reform of basic education and health curriculum have new requirements for teachers, as well as the declining student quality caused by enrollment expansion and the difficulty of limited educational resources to meet the rapidly growing number of places [6], among which the most intuitive manifestation is the limited development of students' ability caused by insufficient condition guarantee. First of all, as the two colleges and universities in the western minority areas, the three universities are all difficult to introduce talents and have a large brain drain due to the lack of regional advantages, good living conditions and good basic education resources. Although the three schools have introduced the corresponding talent introduction and stability measures, but the role of the physical education institute is not very obvious. For example, the Physical education School of B University has 36 employees and more than 780 students. At the same time, it has to take into account the school physical education work of more than 9,000 people in the university, so the workload is heavy. Secondly, two schools are located in remote towns, where there is a lack of sufficient educational practice resources. Due to the high cost of going out, students can only participate in internship and on-campus simulation practice nearby. The third problem is that the school venues and facilities can't keep up with the development needs of sports education. Field investigation shows that the three universities all have the characteristics of insufficient number and uneven types of venues. In particular, B university cannot guarantee the teaching and training of badminton, table tennis, gymnastics and other events due to the lack of indoor venues, which brings serious constraints to the development of students' sports skills.

3. Countermeasures for pre-service PE teacher education in western minority areas of Sichuan

3.1 Strive for support policies in minority areas to improve basic education

To run higher education in minority areas well, it is not only necessary to improve the export barrier, but more importantly, to consolidate the basic education [10]. The concept of targeted poverty alleviation put forward at the 18th CPC National Congress takes poverty alleviation through education as an important path to poverty alleviation. In November 2015, the Central Conference on Poverty Alleviation and Development proposed that "State funding for education should continue to be tilted towards poor areas, basic education and vocational education, so as to help them improve their conditions for running schools." With the support of poverty alleviation policies and other assistance from other parts of the country, the conditions of elementary and secondary education in the western minority areas of Sichuan have been greatly improved. At present, by giving full play to the role of the policy to improve the conditions of compulsory education in poor areas, to ensure that the conditions of basic education are further optimized; Give full play to the role of the policy of building teachers, and quickly make up for the shortcomings of teachers; We will give full play to the policies of "two exemptions and one subsidy" and "school dropout control" to ensure that the compulsory education system is fully implemented. In 2016, The General Office of the State Council issued the Guidance on Accelerating the Development of Education in Central and Western China, which put forward clear requirements on senior high school education: "Coordinate the coordinated development of regular senior high school and secondary vocational education, optimize the school layout, improve the school conditions, improve the school quality, perfect the fund investment mechanism, increase student financial aid, and constantly improve the level of senior high school education." This move provides powerful policy support and school-running guarantee for high school education in western minority areas of Sichuan, and can effectively promote the improvement of basic education quality of ordinary high school students in this region. To grasp the basic education can effectively improve the level of scientific and cultural knowledge of students, so as to ensure the increase of the enrollment rate of students in minority areas. Local students are better able to adapt to the local environment, and it is easier for them to stay in the local areas to engage in corresponding jobs. Focusing on compulsory education and senior high school education in minority areas can effectively improve the admission of students in western Sichuan minority areas to relevant universities, increase the proportion of graduates to stay in the future, and return to the original intention of training talents for local areas.

3.2 Actively optimize the "supply side" to improve employment correlation

Combined with the actual situation in western minority areas of Sichuan, the implementation of the "Implementation Plan on Comprehensively Strengthening and Improving School Physical Education in the New Era" still needs a large number of high-quality physical education talents to enrich the teachers. Through combing the data of 2021 Statistical Bulletin of national economic and social development in Western Sichuan Autonomous Prefecture, it is found that there are 1,246 primary schools, 196 junior middle schools, 71 senior high schools and 23 secondary vocational schools (including vocational high schools) in this region. In terms of labor force and market supply and demand, the main reasons for the severe employment situation of sports graduates include the imbalance of scale and quantity; Second, the imbalance of structure [6]. At present, the three colleges and universities in the western minority areas of Sichuan all regard the training of middle school physical education teachers as the target of talent training, and the employment targets are middle school, high school and secondary vocational schools (including vocational high schools), with a total of 290 schools. However, the number of physical education graduates in 2022 has reached 480, so the supply exceeds the demand in terms of scale and quantity. With the rapid development of our country's educational reform, after the tertiary normal transformation and upgrading, the undergraduate has become the fundamental base of teacher education. The traditional training model, with training physical teachers in middle school as the mission at the undergraduate stage, has changed the direction of cultivating "multiple physical teachers" during the development [8]. While there is an oversupply of physical education teachers in secondary schools, 1,246 primary schools and 1,710 kindergartens in the region cannot be adequately supplied. Under the premise that the three universities are positioned as "cultivating talents for ethnic minority areas in Sichuan", they should fully consider the characteristics of talents needs in the region, grasp the pain points and adjust the target positioning, so as to shoulder the heavy responsibility.

3.3 Actively explore the construction of curriculum system based on vocational needs

According to the requirements of the Implementation Plan of Sichuan Province on Comprehensively Strengthening and Improving School Physical Education in the New Era and the Implementation Opinions of Sichuan Province on Deepening the integration of Physical Education and Promoting the Healthy Development of Young People, the key contents of the work of primary and secondary school physical education teachers in the future are "opening up and starting physical education classes", "church, practice and match", etc. Therefore, higher requirements are put forward for PE teachers' teaching ability, extracurricular training and competition organization ability. "One practice and three learning" is not only a requirement for physical education teachers in the new era, but also a training guide for pre-service physical education teachers under the background of teacher professional certification. In the process of talent training, curriculum system is an important carrier, which is the embodiment and support of talent training objectives [7]. Therefore, it is very necessary to make new exploration and attempts from the curriculum system around the ability needs of primary and secondary school physical education teachers in the aspects of single-specialty and multi-ability, teaching ability, extracurricular training, competition organization and so on. In the process of constructing the current curriculum system. Firstly, it should be strengthened in the course of constructing the curriculum system according to the situation that students' "multi-functional" ability is not optimistic. Second, combined with the future teaching needs of pre-service physical education teachers, the corresponding sports items should not only "church", but also focus on "teaching". Thirdly, pay attention to the theory and practice of sports training and competition organization, improve students' theoretical literacy and practical level, and meet the ability needs in the future work.

3.4 Seize the opportunity to strive for resources to guarantee the bottom conditions

The four aspects of the first level of teacher certification -- "curriculum and teaching", "cooperation and practice", "teaching staff" and "supporting conditions" are basically designed in accordance with the national standard [11], which establishes the principle of the bottom line. Based on the background of teacher professional certification, all colleges and universities offering physical education major in China must participate in the first-level certification [12]. The publication of teacher professional certification standards, not only can help do the teacher professional colleges and universities self-inspection self-inspection, but also provides the direction for the later construction, to ensure that there is a target. For the colleges and universities in the western minority areas of Sichuan, by actively participating in the teacher's professional certification, they can not only seriously examine the shortcomings of their own educational conditions, but also obtain the attention of the schools, policy support and financial security. Take this opportunity to combine the characteristics of physical education professional talents, further explore the policy of talent introduction and talent stability, strengthen the foundation of teachers, reduce the phenomenon of non-professional people on professional courses to improve the quality of teaching; Combined with the clear requirements of "cooperation and practice", actively expand the practice base inside and outside the school, establish the industry mentor mechanism, enhance the industry exchanges, and provide more conditions for the improvement of students' practical ability; Take this opportunity to win financial support, combine the needs of students majoring in physical education to enrich the types of venues, improve the venue conditions, to provide sufficient material guarantee for students' sports skills training.

4. Conclusion

Teacher professional certification aims to standardize and guide the construction of teacher major, reshape the teacher training system and improve the quality of teacher professional personnel training. The certification principle of "promoting construction by evaluation" and the requirement of "continuous improvement" reflect the idea of cultivating high-quality and high-quality teacher talents on the way forever. Local colleges and universities in minority areas bear the important task of training qualified physical education teachers for local areas, which plays a very important role in the revitalization of education in minority areas. Faced with the major reform and opportunity of teacher professional certification, the three colleges and universities are in the state of checking the standards and learning experience to catch up. In this process, influenced by many factors, there are also passive deviation from the original goal of training. Low employment correlation reflects poor training quality; The curriculum system cannot support students' future needs; The lack of condition guarantee limits the development of students' sports ability and other problems. In view of these problems, the paper also

puts forward corresponding countermeasures, hoping to provide reference for the evaluation and promotion of pre-service physical education teachers in local colleges and universities in minority areas.

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