

The Development of Physical Education Major in China Under the Background of Normal Majors Certification: A Narrative Literature Review

Lu Jun¹, Washima Che Dan^{1*}

¹ Faculty of Education and Humanities, UNITAR International University, Malaysia

*Corresponding Author: washima@unitar.my

Received: 13 February 2026 | Accepted: 30 March 2026 | Published: 20 April 2026

DOI: <https://doi.org/10.55057/ajress.2026.8.3.27>

Abstract: *As a core measure of China's teacher education quality assurance system, the normal major's certification provides clear guidance and institutional support for the connotative development of physical education major and aligns with the Quality Education Goal in the United Nations Sustainable Development Goals. This narrative literature review explores recent literature on the development of physical education major in China under the background of normal majors' certification, and comprehensively analyses the current value orientation, practical dilemmas, and optimization paths of major development. The inclusion criteria for this review are quite stringent, aiming to focus on the core trends and characteristics of current physical education major development in China. The inclusion criteria are CSSCI papers published between 2021 and 2025 that relate to the development of physical education major in China with the normal major's certification. This study included 12 articles for analysis. The core themes identified by the study included: the training objective system (a collaborative reconstruction of positioning, connotation, and evaluation), curriculum reform (structural optimization and content integration), teaching reform practice (concept renewal and model innovation), optimization of practical components (systematized construction of the ASI curriculum), and quality assurance and certification responses (dilemmas and paths). Based on existing research and considering the trends in China's school sports reform and teacher education development, future research on physical education major can focus on the following four directions, conducting cross-regional and cross-level comparative studies, strengthening empirical research and long-term mechanism research, paying attention to the application of new technologies and digital transformation research, and deepening international comparative research and localized innovation.*

Keywords: Normal Majors' Certification; Physical Education Major; China; SDG 4

1. Introduction

In 2017, the Ministry of Education of China issued the “Implementation Measures for the Normal Majors Certification in Regular Institutions of Higher Learning (Provisional)”, marking the beginning of a new era of comprehensive quality management and connotative development for normal majors in China (Chen & Wu, 2024), which is in line with the Quality Education Goal in the United Nations Sustainable Development Goals. The certification takes “student-centered, outcome-oriented, and continuous improvement” as its core concept and “practicing teacher ethics, learning to teach, learning to educate, and learning to develop” as its graduation requirements framework (Chen & Wu, 2024), and constructs a three-level, five-

category certification system, which puts forward systematic and standardized reform requirements for the talent training system of physical education major. As an important part of normal majors, the quality of the construction of physical education major is directly related to the overall level of the physical education teacher team in primary and secondary schools, and profoundly affects the effectiveness of promoting the physical health of young people, advancing the reform of school sports, and building a strong sports nation.

With the rapid development of school sports in China, policy documents such as the “Opinions on Comprehensively Strengthening and Improving School Sports in the New Era” and the “Opinions on Deepening the Integration of Sports and Education to Promote the Healthy Development of Young People” have been successively issued, which have put forward higher requirements for the professional quality, teaching ability and comprehensive education level of physical education teachers (Chen, 2022). Against this background, the Chinese academic community has carried out multi-dimensional and multi-level research on the construction of physical education major under the background of normal majors certification and has formed rich research results. These studies cover important aspects such as the reconstruction of training objectives, curriculum system reform, optimization of practical teaching, and innovation of evaluation mechanism, providing important theoretical reference and practical guidance for major construction.

However, existing research often focuses on exploring single aspects or localized issues, such as individually discussing pathways for integrating ideological and political education into courses, strategies for reforming practical teaching, or the suitability of accreditation standards (Wang, 2020; Gong et al., 2022; Wang & Lv, 2022). It lacks a systematic overview and integration of the entire professional development process and fails to fully present the inherent connections and synergistic effects among various elements. Furthermore, some studies suffer from an overemphasis on theoretical discussion and a lack of empirical analysis, offering more macro-level suggestions than specific operational pathways, and paying insufficient attention to the differentiated characteristics of physical education major development across different types of universities (normal universities, comprehensive universities, and sports colleges) (Xu & Liu, 2023; Wu et al., 2023).

This study aims to conduct a narrative literature review approach to comprehensively present the current research status, core consensus, and points of contention in physical education major development, clarifying the internal logic and practical pathways of major development, and providing a more systematic theoretical reference for subsequent major reform and quality improvement.

2. Methodology

Search Strategy and Screening Criteria

In January 2026, a narrative literature review was conducted using advanced searches on the CNKI database. Specifically, the titles were set to “physical education major”, the search timeframe was limited to 2021-2026, and the journal source was set to CSSCI to ensure the academic quality and research value of the literature. The initial search yielded 33 relevant articles. After title screening, detailed abstract reading, and full-text review, 12 articles highly relevant to the research topic of “Normal Majors Certification” were ultimately selected for analysis.

Data Analysis

The 12 selected articles cover the core dimensions and key issues of physical education major development, and are specifically distributed as follows: construction of training objective system (n=2), curriculum system reform (n=3), teaching model innovation (n=2), optimization of practical links (n=2), quality evaluation mechanism (n=1), accreditation dilemmas and countermeasures (n=1), and integration of ideological and political education into courses (n=1).

In terms of research institutions, the authors’ affiliations include universities such as Capital University of Physical Education and Sports, Yangzhou University, East China Normal University, Shandong Normal University, and Central China Normal University, covering normal universities, comprehensive universities, and sports colleges, reflecting the breadth and representativeness of the research. In terms of research methods, the main approaches are literature review, textual analysis, and case studies. Some studies also employ empirical research methods such as questionnaires, interviews, and structural equation modeling, forming a research pattern that combines theoretical discussion with practical verification. In terms of research content, the literature focuses on both macro-level system construction and policy interpretation, as well as micro-level teaching reform and practical operation, providing rich material support for a comprehensive analysis of the current state of physical education major development.

3. Results and Discussion

Table 1: Core Dimensions of Physical Education Major Development under the Background of Normal Majors Certification

Number	Core Dimensions	Main Content
1	Training Objectives System	Positioning, Connotation, and Evaluation
2	Curriculum Reform	Structural Optimization and Content Integration
3	Teaching Reform Practice	Concept Renewal and Model Innovation
4	Optimization of Practical Components	Systematized Construction of the ASI Curriculum
5	Quality Assurance and Certification Responses	Dilemmas and Paths

Training Objectives System: A Collaborative Reconstruction of Positioning, Connotation, and Evaluation

As the soul and core of major development, the scientific nature and appropriateness of training objectives directly determine the direction and quality of talent cultivation. The normal majors certification has promoted the transformation of the training objectives of physical education major from “single skill orientation” to “comprehensive quality orientation”, forming a three-dimensional collaborative structure of “goal positioning - goal connotation - goal evaluation” (Ge & Guo, 2024), and highlighting the core guiding role of the quality concept of “purpose appropriateness” (Chen, 2022).

In terms of goal positioning, the literature generally emphasizes the need to take into account both the principle of “external consistency” and “internal consistency”. External consistency requires that the training goals must be aligned with the needs of China’s basic education reform and the standards of teachers’ professional competence (Chen, 2022), such as the four-in-one goal of “enjoying fun, enhancing physical fitness, developing a sound personality, and tempering will” proposed in the “Opinions on Comprehensively Strengthening and Improving School Sports in the New Era”, and the specific requirements of the “Professional Standards for Middle School Teachers” for the professional concepts, professional knowledge, and

professional competence of physical education teachers. Internal consistency requires that the training goals be in line with the school's positioning and professional characteristics (Chen, 2022) and avoid the homogenization of training goals among different institutions. Chen (2022) found through the analysis of multiple universities that the training goals of high-quality physical education major have clearly defined the four core elements of "teacher's ethics, professional level, ability to educate people, and lifelong development", and can form differentiated positioning according to the type of school (normal universities, comprehensive universities, and sports colleges) and service orientation (urban primary and secondary schools, rural primary and secondary schools, special education schools). For example, normal universities focus on cultivating teaching abilities and moral character; sports colleges emphasize improving athletic skills and specialized teaching abilities, while local colleges emphasize adaptability to regional basic education.

In terms of goal connotation, the certification requires that the training objectives be specifically decomposed into measurable, achievable and evaluable graduation requirements indicators, forming a logical chain of "training objectives - graduation requirements - course objectives". Ge and Guo (2024) pointed out that the training objectives of physical education major should highlight professional characteristics, emphasize the core position of sports skills and teaching ability, and also pay attention to the cultivation of teacher ethics, educational sentiment and professional identity, and break the traditional dilemma of "emphasizing skills and neglecting education" and "emphasizing academics and neglecting normal". From the literature, the reconstruction of the connotation of training objectives is mainly reflected in three aspects: First, strengthen teacher ethics and educational sentiment, and take "practicing the core socialist values" and "cultivating morality and educating people" as core requirements (Dong et al., 2022); Second, highlight practical teaching ability, and clarify that physical education teacher trainees should have core skills such as teaching design, classroom implementation, teaching evaluation and class management (Dai et al., 2023); Third, focus on lifelong development ability, and emphasize the cultivation of critical thinking, reflective practice ability and self-learning ability (Yin et al., 2023).

In terms of goal evaluation, the construction of a dual mechanism of "rationality evaluation + achievement evaluation" has become a consensus in academia. Rationality evaluation needs to be combined with external inputs such as feedback from employers, graduate follow-up surveys, and basic education reform needs (Ge & Guo, 2024), with a cycle of 2-4 years, mainly used to assess the suitability of training goals with social needs and school positioning. Achievement evaluation focuses on the career development status of graduates 5 years after graduation (Ge & Guo, 2024), including teaching performance, professional growth, career identity and other dimensions, forming a closed-loop mechanism of "evaluation-feedback-improvement". Chen (2022) proposed that the evaluation of training goals should follow the principle of combining "external suitability" and "internal suitability". External suitability focuses on national policy guidance and basic education needs, while internal suitability focuses on school characteristics and major development. The objectivity and effectiveness of the evaluation results are ensured through the participation of multiple subjects (university teachers, primary and secondary school teachers, graduates, and employers).

Curriculum Reform: Structural Optimization and Content Integration

As the core carrier of talent cultivation, the reconstruction of the curriculum system is the key and difficult point of the construction of physical education major under the background of normal majors' certification (Yue, 2022). Existing research has carried out in-depth

explorations around the three aspects of curriculum structure, curriculum content and curriculum integration, and put forward a series of reform ideas and practical paths.

Regarding the curriculum structure, the literature generally points out that the current physical education major curriculum system has structural imbalances such as “too many theoretical courses and insufficient sports skills and practical courses” and “fragmented and weak integration of course modules”. Yue (2022) analyzed the training programs of 16 physical education major that have passed the second-level certification and found that some colleges have less than 40 credits for sports skills courses, which is difficult to support the training of teacher trainees’ demonstration ability; the proportion of practical courses is generally less than 20%, and the connection between educational observation, study and internship is insufficient. The research of Sun et al. (2025) further shows that the imbalance of curriculum structure is also reflected in the insufficient integration of general education courses, professional education courses and teacher education courses, and the phenomenon of “each doing its own thing”, which affects the talent training. In response to these problems, scholars have proposed to optimize credit allocation through a “three-integration” strategy (Yue, 2022): First, integrate general education with professional education, and integrate general education content such as excellent traditional Chinese culture and modern information technology into professional courses; second, integrate subject courses with teacher education courses, and break the binary separation model of “theory + skills”; third, integrate theoretical courses with practical courses, and ensure that practical courses accumulate to no less than 18 weeks, and that the credits of sports skills courses are no less than 25% of the total credits (Chen & Wu, 2024).

Regarding the course content, it presents the significant characteristics of “integration of ideological and political elements, introduction of cutting-edge knowledge, and strengthening of practice orientation”. In terms of integration of ideological and political elements, Hu et al. (2022) and Dong et al. (2022) constructed a structure system of ideological and political elements in physical education major courses, including 16 secondary indicators such as ideals and beliefs, teacher ethics, sports spirit, and responsibility. They proposed that ideological and political education should be fully integrated into course objectives, teaching content and evaluation links to achieve the goal of “integration of skills and morality”. Hu et al. (2022) and Hu et al. (2021) further pointed out that the integration of ideological and political education in courses should avoid “labeling” and “formalization”. It is necessary to explore characteristic ideological and political elements in combination with different course types. For example, the skills courses should highlight the spirit of hard work and the cultivation of rule awareness, while the theoretical courses should emphasize the cultivation of national sentiment and professional identity. In terms of the introduction of cutting-edge knowledge, Dai et al. (2023) took Yancheng Teachers University as an example and proposed that the content of skills courses should shift from “inheritance of competitive sports” to “leading sports and health”, and add practical content such as physical fitness testing, sports injury prevention, and interpretation of sports and education integration policies (Dai et al., 2023). Yue (2022) suggested strengthening the construction of basic ability courses such as health education, sports competition and refereeing, and physical training to meet the needs of physical education reform in primary and secondary schools. In terms of strengthening the practical orientation, Ding et al. (2022) proposed to break down the barriers between traditional courses and organically combine the teaching of sports skills with the training of teaching methods through the “course group” teaching model, such as carrying out practical training such as teaching organization, protection and assistance, and error correction guidance in the track and field course (Ding & Liang, 2022).

In terms of curriculum integration, the integration of “subject-teaching-skill” has become the core direction of reform. The traditional physical education major curriculum system has the problem of separation of subject theory, teaching methods and sports skills, resulting in teacher trainees “knowing how to do but not how to teach” and “understanding theory but not how to practice” (Ding & Liang, 2022). In order to solve this dilemma, scholars have proposed to build an integrated curriculum integration model: First, content integration, integrating teaching theory, teaching materials and teaching methods into the teaching of skills courses, such as teaching the design ideas and implementation strategies of basketball teaching in basketball courses (Dai et al., 2023); Second, method integration, adding case analysis, teaching simulation and other practical links in subject theory courses, and strengthening the application of teaching principles and methods in skills courses (Ding & Liang, 2022); Third, resource integration, integrating college teachers and high-quality resources of primary and secondary schools, and establishing a collaborative teaching mechanism of “college teachers + famous primary and secondary school teachers” (Ding & Liang, 2022). In addition, curriculum integration also emphasizes interdisciplinary integration, such as integrating psychology and sociology knowledge into physical education teaching practice to improve the comprehensive education ability of teacher trainees (Hu et al. 2021).

Teaching Reform Practice: Concept Renewal and Model Innovation

Teaching reform is a key link in implementing the certification concept and improving the quality of training. Existing research mainly focuses on three dimensions: teaching philosophy, teaching model and teaching evaluation, resulting in a series of innovative achievements.

In terms of teaching philosophy, the shift from “teaching-centered” to “learning-centered” has become a consensus. Dai et al. (2023) proposed that the physical education major should focus on the three major concepts of “learning to teach, learning to educate, and learning to develop” to realize the transformation from “teaching students to do” to “teaching students to teach” and strengthen the reflective practice ability of teacher trainees. Yin et al. (2023) emphasized that the teaching process should highlight “output orientation”, focus on the formation and development of the core literacy of teacher trainees, and all teaching activities should be designed around the achievement of graduation requirements. This concept transformation is specifically reflected in three aspects: first, respecting the main position of students and paying attention to the personalized needs and differentiated development of teacher trainees (Dai et al., 2023); second, strengthening the practice orientation and closely linking the teaching process with the actual physical education teaching in primary and secondary schools (Ding & Liang, 2022); and third, highlighting the ability-based approach and focusing on the coordinated cultivation of teaching ability, education ability and lifelong development ability (Yin et al., 2023).

In terms of teaching models, “integration of classroom and extracurricular activities” and “collaboration between school and extracurricular activities” have become important directions for innovation. Yancheng Teachers University has implemented the “integration of practical courses inside and outside the school and classroom and extracurricular activities” model, which organically combines sports clubs, sports competitions, volunteer services and classroom teaching (Dai et al., 2023), significantly improving the teaching practice ability and social adaptability of teacher trainees. The core of this model is: focusing on the transmission of core knowledge and skills in the classroom, strengthening the application of skills through club activities and skills competitions outside the classroom, and achieving a deep integration of theory and practice through observation, internships and research outside the school. The “dual mentor system” has also been widely promoted in the innovation of teaching models, but

the literature also points out that there are problems such as poor communication between mentors inside and outside the school, inadequate implementation of guidance responsibilities, and disconnection of guidance content (Ding & Liang, 2022). In this regard, Ding and Liang (2022) proposed to establish a collaborative teaching and research mechanism, clarify the list of guidance responsibilities, build a communication platform, and form a collaborative education pattern of “university mentors focusing on theoretical guidance and primary and secondary school mentors focusing on practical guidance”. In addition, the deep integration of information technology and teaching has become an important trend in the innovation of teaching models. Scholars suggest introducing modern technologies such as virtual reality and online teaching platforms to carry out blended teaching and enhance the fun and effectiveness of teaching (Sun et al., 2025).

In terms of teaching evaluation, the evaluation has shifted from “single result evaluation” to “process + result” comprehensive evaluation. Zhang and Sun, (2024) found through empirical research that the evaluation of physical education major teaching internship should include dimensions such as teacher ethics performance, teaching ability, class guidance, and comprehensive education, and adopt multiple methods such as observation evaluation, file evaluation, teaching demonstration evaluation, and reflection log evaluation. Yancheng Teachers University adopted the “inspection + teaching and examination separation” mechanism (Dai et al., 2023), simulated the teacher qualification examination scenario, and paid attention to both teaching results and performance in the teaching process, which effectively improved the objectivity and pertinence of the evaluation. In terms of the evaluation of the achievement of course objectives, Sun et al. (2025) proposed that a scientific calculation method should be established, and the evaluation should be accurate and systematic through the logical chain of “course sub-objective achievement degree → course total objective achievement degree → graduation requirement achievement degree → training objective achievement degree”. The evaluation subjects also show a diversified trend. In addition to teacher evaluation, student self-evaluation, peer evaluation, and employer evaluation are also introduced to form a comprehensive evaluation system (Zhang & Sun, 2024).

Optimization of Practical Components: Systematized Construction of the ASI Curriculum

Educational practice is a key link for teacher trainees to move from theory to practice, and its curriculum construction is a core requirement for certification (Chen & Wu, 2024). Existing research has systematically explored the value of orientation, construction principles and system construction of the “apprenticeship-seminar-internship” curriculum (Abbreviation: ASI curriculum) and formed a relatively mature practice model.

In terms of value orientation, three core elements have been formed: “practice reflection, situational learning, and identity reinforcement”. Practice reflection emphasizes promoting the generation and accumulation of practical knowledge of teacher trainees through teaching logs, reflection seminars, case analysis and other forms (Chen & Wu, 2024). Chen and Wu (2024) pointed out that cultivating the reflective practice ability of teacher trainees is the primary value pursuit of the ASI curriculum. Through reflection, teacher trainees can become aware of their tacit knowledge and activate, examine and develop it. Situational learning focuses on enabling teacher trainees to achieve “legitimate marginal participation” in real teaching scenarios and gradually integrate into the teacher community.

ASI curriculum provides important situational learning opportunities for physical education teacher trainees, enabling them to organically integrate theoretical knowledge with practical

situations by observing and participating in real school physical education teaching situations. Identity reinforcement focuses on cultivating the identity of physical education teachers. Through observing the teaching of excellent physical education teachers, participating in teaching practice, and carrying out professional seminars and other activities, the stereotype of physical education teachers as “one whistle and two balls” is eliminated, and the sense of professional identity and professional sentiment is strengthened.

In terms of construction principles, scholars have proposed that four principles should be followed: appropriateness, dispersion, interweaving, and integration (Chen & Wu, 2024). The principle of appropriateness emphasizes “two-way appropriateness”, which should not only meet the national demand for physical education major and the trend of school sports reform, but also be precisely designed according to the characteristics of the course to support the major graduation requirements. The principle of dispersion is reflected in two dimensions: horizontal dispersion and vertical dispersion. Horizontal dispersion refers to the progressive and interconnected nature of the ASI Curriculum content, from perceiving the teaching situation to mastering the teaching methods, carrying out teaching practice and then reflecting on teaching practice; vertical dispersion refers to the course time arrangement being dispersed to each stage of the training cycle to avoid the weakening of practical effect caused by concentrated arrangement.

The principle of interweaving requires breaking the drawback of “theory first, practice later”, promoting the interweaving and interaction between the learning situation of higher education and the practical situation of basic education, and realizing the organic integration of theoretical knowledge and practical experience. The principle of integration emphasizes the realization of comprehensive integration between subject and object, between subjects and between objects, and building a collaborative education pattern of ASI Curriculum teachers, primary and secondary school instructors and professional course teachers.

In terms of system construction, a four-in-one framework of “goal-content-implementation-evaluation” has been formed (Chen & Wu, 2024). In terms of goal setting, it is necessary to support the graduation requirements of physical education major. Based on the idea of “reverse design and forward implementation”, the training objectives, graduation requirements, graduation requirement indicators and course objectives are linked together. For example, apprenticeship focuses on the goal of “observation and cognition”, internship focuses on the goal of “practice and improvement”, and seminar focuses on the goal of “reflection and research”. In terms of content design, four major modules have been constructed: teacher ethics and professional identity, physical education and health curriculum design and implementation, extracurricular physical education and class work, and physical education teaching research and professional development.

The content of different modules has different focuses according to the focus of the ASI Curriculum. In terms of implementation guarantee, the high-quality implementation of the ASI Curriculum is ensured by formulating a quality assurance system, establishing a course evaluation mechanism, improving practical guidance ability, and strengthening the construction of practice bases. In terms of evaluation methods, the evaluation of feedback methods of “process + result” and “self + others” are constructed to fully reflect the practical performance of teacher trainees and provide a basis for continuous improvement.

Quality Assurance and Certification Responses: Dilemmas and Paths

In the process of promoting normal majors' certification, physical education majors face many practical difficulties. Scholars have conducted in-depth analysis of these issues and proposed corresponding optimization paths.

Regarding the difficulties in certification, there are four main problems (Yin et al., 2023): First, the certification authority is insufficient, there is a lack of special certification standards for physical education major, the existing standards are not targeted enough, and they fail to fully reflect the practical characteristics of physical education disciplines; Second, the recognition is not high, some universities have a utilitarian tendency of “certification for the sake of certification”, regard certification as a “political achievement project”, and fail to truly integrate the certification concept into daily professional construction; Third, the implementation is insufficient, the certification organization lacks independence, the collaborative governance between universities and primary and secondary schools is lacking, and the authenticity and effectiveness of the practical links are difficult to guarantee; Fourth, the discrimination is not strong, the certification results are mostly “conditional pass”, the elimination function has not been effectively played, and it is difficult to form an effective incentive and constraint mechanism. In addition, the literature also pointed out some specific problems, such as the inconsistent calculation methods of course goal achievement, the need to improve the pass rate of teacher qualification certificates, and the imperfect evaluation mechanism of ideological and political education.

In terms of optimizing the path, scholars have proposed a variety of countermeasures: First, improve the certification standards and system, formulate “common + individual” certification standards for physical education major (Yin et al., 2023), strengthen the linkage between certification results and resource allocation and dynamic adjustment of majors, and establish a sound legal guarantee system for certification; Second, enhance the initiative of universities, guide universities to internalize the certification concept into the conscious action of daily professional construction, avoid formal rectification, and build an endogenous professional construction ecosystem (Yin et al., 2023); Third, introduce the participation of social organizations, build a certification mechanism of multi-party collaboration among government, universities, industry associations, and primary and secondary schools, and improve the objectivity and professionalism of certification (Yin et al., 2023); Fourth, strengthen the quality assurance system, establish a three-level monitoring mechanism of course goal achievement evaluation, graduation requirement achievement evaluation, and training goal achievement evaluation (Sun et al., 2025), and improve the closed loop of “evaluation-feedback-improvement”; Fifth, deepen the integration of ideological and political education in courses, build an achievable ideological and political education goal system in accordance with the “output-oriented” concept, optimize teaching content and methods, and enhance teachers' awareness and ability to educate people through ideological and political education (Hu et al. 2021).

4. Conclusion

Normal major certification provides clear conceptual guidance and an operational framework for the development of physical education majors. The core is to achieve a fundamental shift from “input-oriented” to “output-oriented” approaches, with all development activities revolving around the formation of graduates' core competencies.

Training objectives should balance external adaptability and internal characteristics. They should align with national policy guidance and the needs of basic education, while also conforming to the school's educational positioning and professional characteristics. Measurable and achievable graduation requirements and course objectives should be formed through scientific decomposition.

The curriculum system needs to emphasize structural optimization and content integration, addressing the separation between theory and practice, academic and practical subjects, and general and professional education. It should strengthen the organic integration of ideological and political education into the curriculum, constructing a systematic and integrated curriculum system.

The development of practical training as a curriculum is crucial for improving the quality of talent cultivation. It should adhere to the principles of appropriateness, decentralization, interweaving, and integration, constructing a "three-pronged" curriculum system and strengthening collaborative education between universities and primary and secondary schools.

The key to quality assurance lies in building a closed-loop mechanism of "evaluation-feedback-improvement", integrating diverse evaluation subjects and methods to achieve effective monitoring and continuous improvement of the entire process of professional development.

Professional development needs to address core issues such as unbalanced curriculum structure, weakened practical teaching, insufficient adaptation to accreditation standards, and insufficient integration of ideological and political education, promoting the development of professional programs towards a more intrinsic and high-quality direction.

5. Future Research and Limitation

Conduct cross-regional and cross-level comparative studies. Current research often focuses on single institutions or local areas. Future research can expand its scope to analyze the differentiated paths of physical education major development across different regions (eastern, central, and western), different types of universities (normal universities, comprehensive universities, and sports colleges), and different accreditation levels, providing a basis for categorized guidance on major development.

Strengthen empirical research and long-term mechanism research. Existing research focuses more on theoretical discussions and case studies, with relatively insufficient long-term tracking and quantitative research. Future research can use methods such as tracking surveys and experimental studies to verify the actual effects of curriculum reform, teaching innovation, and practice optimization, and build a sustainable long-term mechanism for quality assurance.

Focus on research on the application of new technologies and digital transformation. With the rapid development of technologies such as artificial intelligence, virtual reality, and big data, future research can explore the application of new technologies in physical education major teaching, practice, and evaluation, such as the construction of virtual simulation teaching platforms and the development of digital practical teaching management systems, promoting the digital transformation of major development.

Deepen international comparative research and localized innovation. Existing research lacks sufficient reference to international experience in physical education teacher certification. In

the future, we can strengthen comparative research with the physical education teacher certification systems of countries such as Europe, the United States, Japan, and South Korea, absorb advanced experiences, and carry out localized innovation in combination with my country's national conditions to improve the major certification and construction system of physical education with Chinese characteristics.

Acknowledgement

The author would like to thank UNITAR International University for supporting the paper.

Conflict of Interest

The authors declare that there is no conflict of interest.

References

- Chen H.Y. (2022). The Cultivation Objectives of Physical Education Major under the Background of Teacher Education Accreditation: Based on the Quality-oriented View of "Fitness for Purpose". *Journal of Sports Research*, (04),66-74. <https://doi.org/10.15877/j.cnki.nsic.20220623.001>
- Chen H.Y & Wu N.Y.(2024). Construction of ASI Courses of Physical Education Major under the Accreditation of Teacher Education: Value Orientation, Principle Adherence, and System Construction. *Journal of Capital University of Physical Education and Sports*, (04),455-463. <https://doi.org/10.14036/j.cnki.cn11-4513.2024.04.011>
- Dai J., Liu Y. & Wang Q.B. (2023). The technical teaching reform and practice of physical education major under the background of teacher training professional certification—Taking Yancheng Teachers University as an example. *Journal of Physical Education*, (01),112-117. <https://doi.org/10.16237/j.cnki.cn44-1404/g8.2023.01.008>
- Ding W. & Liang S. (2022). Research on the Path of the Construction of Physical Education Major Under the Background of Teacher Education Certification. *Sports & Science*, (03),39-43+49. <https://doi.org/10.13598/j.issn1004-4590.2022.03.006>
- Dong C.X., Han G.L., Zhu C.S. & Fan S.M (2022). An Exploration on the Practice of "Curriculum Ideological and Political Teaching" of Physical Education Major under the Background of Normal Majors Certification. *Journal of Tianjin University of Sport*, (01),32-37. <https://doi.org/10.13297/j.cnki.issn1005-0000.2022.01.005>
- Gong, B. Q., Wang, Z. Q., & Peng, J. G. (2022). Event-related ability evaluation index model of students specialized in track and field in colleges and universities. *Journal of Wuhan Sports University*, 56(07), 92-100. <https://doi.org/10.15930/j.cnki.wtxb.2022.07.003>.
- Ge S.L & Guo X.C (2024). Re-conceptualizing the Determination of Cultivation Objectives in PE Program of Teacher Education Accreditation. *Journal of Tianjin University of Sport*, (05),557-563+572. <https://doi.org/10.13297/j.cnki.issn1005-0000.2024.05.009>
- Hu Q.S., Xiang B. & Wang W. (2022). Developing Core Values Through P.E. Curriculum in View of Professional Designation:Theoretical Study, Current Situation and Strategy. *Journal of Wuhan Sports University*, (11),45-53. <https://doi.org/10.15930/j.cnki.wtxb.2022.11.007>
- Hu Y.H., Wu S.L. & Ai A.L. (2021). The problems of the certification work for the physical education major in China and its optimization path. *Journal of Physical Education*, (02),271-280. <https://doi.org/10.16063/j.cnki.issn1001-747x.2024.02.014>
- Sun L.Q., Cui Y.C., Dong Y.W. & Yue X.P. (2025). Research on the Rationality Evaluation of the Curriculum System of Physical Education Majors in China from the Perspective of Teacher Education Program Accreditation. *Journal of Beijing Sport University*,

- (05),42-52. <https://doi.org/10.19582/j.cnki.11-3785/g8.2025.05.004>
- Wang, J. (2020). Research on the reform of undergraduate curriculum of physical education major in Guangdong province: An empirical study on the demand of middle school PE teachers. *Journal of Guangzhou Sport University*, 40(04), 106-111. <https://doi.org/10.13830/j.cnki.cn44-1129/g8.2020.04.026>.
- Wang, H. L., & Lv W. G. (2022). A study on application of performance assessment in the ideological and political education of physical education curriculum: Taking gymnastics courses of physical education major as an example. *Journal of Physical Education*, 29(01), 103-110. <https://doi.org/10.16237/j.cnki.cn44-1404/g8.2022.01.008>.
- Wu, X. L., Tao, Y. L., Li, W. D., Peng, Q. W., Li, Y. L., & Ye, W. (2023). The reform path of sports skill curriculum for physical education majors in China from the perspective of disciplinary content knowledge. *Journal of Chengdu Sport University*, 49(03), 105-111. <https://doi.org/10.15942/j.jcsu.2023.03.014>.
- Xu, Y. L., & Liu, C. Y. (2023). Development characteristics, influence factors and prospects of the curriculum setup for physical education major in China' s colleges and universities. *Sports Culture Guide*, (03), 105-110.
- Yue X.P. (2022). Developing a Physical Education Curriculum System in China in the Context of Teacher Education Accreditation:Problems and Solutions. *Journal of Beijing Sport University*, (08),96-105. <https://doi.org/10.19582/j.cnki.11-3785/g8.2022.08.009>
- Yin L., Liu X.M., Li F. & Li Q.L. (2023). Professional certification for physical education teacher: Value, barrier and path. *Journal of Physical Education*, (05),105-110. <https://doi.org/10.16237/j.cnki.cn44-1404/g8.20230721.005>
- Zhang L.J. & Sun Y.P. (2024). The Realistic Dilemma and Action Path of Evaluation of Physical Education Internship under the Background of Teacher Education Professional Certification. *Journal of Xi'an Physical Education University*, (02),271-280. <https://doi.org/10.16063/j.cnki.issn1001-747x.2024.02.014>