

Real-World Challenges and Optimization Pathways for General Volleyball Courses in Universities

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Abstract:

General volleyball courses in universities are a key component of the campus physical education curriculum. They play an important role in improving students' physical fitness, promoting volleyball culture, and fostering sportsmanship. This study examines general volleyball courses in universities. It uses literature review, logical analysis, and field investigation. The study systematically analyzes current challenges in teaching content, teaching staff, teaching resources, and teaching approaches. Based on current requirements for university physical education and students' learning needs, the study proposes targeted optimization pathways. The findings provide theoretical support and practical guidance for improving teaching quality and promoting the sustainable development of the course.

Keywords:

General Volleyball Course, Practical Challenges, Optimization Pathways, Physical Education

1. Introduction

Volleyball, one of the three major ball sports, integrates competition, enjoyment, and fitness. Its values—teamwork, perseverance, and resilience—align closely with the talent development goals of universities. As a general course for non-PE majors, the university general volleyball course is a key channel for popularizing volleyball, promoting volleyball culture, fostering sportsmanship, and developing lifelong engagement in physical activity. It plays an irreplaceable role in improving students' physical fitness, shaping well-rounded character, and supporting holistic development [1].

In recent years, general volleyball courses in Chinese universities have made progress. However, course development still faces multiple constraints and remains misaligned with students' diverse learning needs. In some universities, teaching content is outdated and teaching approaches are monotonous, which limits students' interest and engagement. Instructors may lack sufficient professional competence, and

staff structures can be imbalanced, which undermines teaching quality. Limited facilities and inadequate resource allocation restrict normal course delivery. In addition, evaluation systems are often incomplete and fail to reflect learning outcomes comprehensively [2]. These issues not only hinder the healthy development of general volleyball courses but also weaken the effective dissemination of volleyball culture.

Against this background, this study examines the practical challenges and optimization pathways of general volleyball courses in universities. It aims to identify key problems in current course development and to propose feasible, evidence-informed strategies to improve course quality and effectiveness. The study seeks to better support students' holistic development and to contribute to the advancement of university physical education.

2. Value of Offering General Volleyball Courses in Universities

2.1. Improving Physical Fitness and Implementing the Health-centered Principle

University general physical education aims to improve students' physical fitness and health. Volleyball is a whole-body sport that integrates strength, speed, agility, and coordination. Through learning and practicing five core skills—serving, forearm passing, spiking, blocking, and setting—students can strengthen the limbs, improve coordination and agility, and enhance cardiopulmonary function and endurance. Long-term participation in volleyball can also improve reaction speed and body control. Systematic skills instruction and physical conditioning help students learn scientific exercise methods and develop healthy exercise habits. As a team sport, volleyball is engaging and can increase students' interest and motivation to participate in physical activity. This can reduce the risk of suboptimal health and support the health-centered principle by building a solid foundation for students' physical and mental well-being.

2.2. Developing Sports Literacy and Supporting Holistic Development

As a team sport, volleyball is not only a physical activity but also a cultural symbol that reflects teamwork, perseverance, and resilience. Compared with individual sports, volleyball places greater emphasis on coordination, communication, and collective performance. Through course learning and campus volleyball activities, students can improve technical skills and expand social networks. They can also strengthen communication skills and gradually develop responsibility, rule awareness, and a cooperative mindset, which supports integrated physical and psychological development and contributes to well-rounded character formation [3]. The course also conveys perseverance and resilience, which can encourage students to strive for excellence in academic study and future life. In addition, by fostering interest in volleyball and lifelong engagement in physical activity, the course can promote the wider participation in volleyball and help build a positive sports culture. This supports the national fitness agenda and strengthens the linkage between school-based sports and community sports.

2.3. Promoting Volleyball Participation and Enriching Campus Sports Culture

Universities are a major venue for cultural dissemination. General volleyball courses provide a key platform for the promotion and development of volleyball and serve as an important carrier of volleyball culture. Offering such courses helps build a broad participation base by enabling more students to understand volleyball and increasing their attention to volleyball events. In teaching, instructors introduce the

origins and development of volleyball, competition rules, and event culture. This helps students understand the cultural meaning of the sport and appreciate the value of sports culture. In addition, volleyball courses diversify campus sports activities by supporting campus tournaments and club programs, thereby strengthening the overall campus sports culture.

3. Practical Challenges in University General Volleyball Courses

3.1. Outdated and Rigid Content, Misaligned with Students' Needs

In many universities, the content of general volleyball courses remains outdated and rigid. It does not meet students' current learning needs or the trends in physical education. In terms of content structure, the course often focuses on basic skill instruction. It repeatedly drills isolated techniques such as serving, forearm passing, setting, and spiking. The content is narrow and monotonous [4]. Technical skills are rarely taught in an integrated way, and the course lacks novelty and enjoyment. As a result, it is difficult to motivate students. Tactical instruction is also underemphasized. Given students' limited skill levels, many universities only introduce basic tactical cooperation in a brief manner. Systematic tactical training and game-based practice are insufficient. This prevents students from transferring isolated skills into game application [5].

In addition, course content is often disconnected from students' daily life and lifelong physical activity needs. It does not adequately cultivate exercise interest or habits. Cultural elements, such as volleyball culture and sportsmanship, are also insufficiently integrated, which weakens the educational function of the course. Moreover, some courses do not account for individual differences among students. They use a uniform teaching and assessment approach. This provides limited support for students with weak foundations and offers few advanced tasks for students with prior experience. Students therefore report a low sense of learning gain, and the course fails to meet the needs of learners at different levels [4].

3.2. Delayed Faculty Development and Uneven Teaching Capacity

Teaching staff are central to course quality. However, faculty development in general volleyball courses remains insufficient and restricts sustainable improvement. First, staffing is often inadequate. With increased university enrollment, the number of students in general PE has grown, while the number of volleyball-specialized instructors has increased slowly. In some universities, one volleyball instructor must teach multiple classes, which creates heavy workloads and weakens teaching quality. In some cases, non-volleyball instructors are assigned to teach volleyball courses, and professional expertise cannot be ensured. Second, teachers' professional capacity varies widely. Some instructors lack systematic volleyball training, and their teaching methods are outdated and do not match current reforms in physical education. Some teachers emphasize technique instruction while neglecting cultural and moral education. They do not effectively embed volleyball culture and sportsmanship, which limits the integration of physical training and character development. [4] In addition, some instructors have limited ability to translate research into teaching practice, which constrains further improvements in teaching quality.

3.3. Insufficient Resource Allocation and Weak Support Conditions

Teaching resources provide the material basis for course delivery. In many universities, resources for general volleyball courses are insufficient, and support

conditions remain weak, creating a major constraint on course development. First, facilities are limited. Volleyball requires adequate venues. Due to budget and space constraints, some universities lack enough courts. Indoor courts are particularly scarce, and teaching relies mainly on outdoor courts that are highly affected by weather. Classes are difficult to conduct on rainy or windy days. Some venues also have aging or damaged facilities. Poor-quality flooring, nets, and balls reduce teaching effectiveness and may create safety risks. Second, teaching resources are limited in type. Instruction often depends on traditional venues and equipment, with little support from modern technologies such as multimedia tools, motion analysis systems, or virtual simulation devices. This reduces the clarity and effectiveness of instruction and weakens students' understanding of techniques and tactical movement. Third, financial input is insufficient. University funding for general PE often favors more popular sports, while support for volleyball is limited. This makes it difficult to meet needs for facility maintenance, equipment replacement, and teacher training, and further restricts course improvement.

3.4. Traditional and Single Teaching Approaches, Lacking Innovation

Many general volleyball courses still follow a traditional pattern of “teacher explanation–demonstration–student practice–teacher correction.” Teaching methods are fixed and lack innovation, and they do not fit students' learning characteristics in the current era. This teacher-centered approach places students in a passive role and provides limited opportunities for inquiry-based and active learning, which reduces motivation and engagement [6]. Some instructors rely mainly on verbal explanation and demonstration and seldom apply modern methods such as situational teaching, game-based learning, or cooperative group learning. As a result, classes can feel dull and students' interest remains low. Moreover, many universities offer only indoor six-player volleyball with a standard hard ball. For beginners, this format has a high entry barrier. Many students find it difficult to experience enjoyment at the early stage and participate mainly to pass assessments, which further reduces learning motivation. In addition, course instruction is weakly connected with extracurricular activities and campus volleyball events. An integrated “in-class and out-of-class” system is often absent. Students therefore lack platforms and opportunities to practice after class, which limits consolidation of skills and reduces teaching effectiveness. Finally, the development of online learning resources is insufficient. Blended learning models have not been effectively implemented, and the course cannot fully support fragmented and personalized learning.

3.5. Incomplete Evaluation System and Limited Scientific Rigor

A scientific and reasonable evaluation system is essential for improving teaching quality and supporting student development. However, evaluation in general volleyball courses remains limited and lacks scientific rigor and comprehensiveness [7]. First, evaluation indicators are narrow. Assessment focuses mainly on technical tests, such as serving, forearm passing, and setting, while neglecting learning attitude, teamwork, sportsmanship, and participation [4]. This limits the ability to reflect learning outcomes and overall competence [8]. Second, evaluation methods are rigid. Many courses rely on summative assessment, using a single final test as the main basis for the course grade. Process-based evaluation is limited, and the system fails to capture individual progress and differences, which weakens motivation. Third, evaluation is dominated by teachers. Students have few opportunities for self-assessment or peer assessment, and results may be subjective and lack objectivity and

fairness. Fourth, evaluation standards can be inflexible. Some universities apply uniform standards without considering differences in students' prior experience. Requirements may be too demanding for beginners, leading to failure in assessment and reduced learning confidence and motivation [2].

4. Optimization Pathways for University General Volleyball Courses

4.1. Optimizing the Content System to Meet Diverse Student Needs

Universities should build a scientific, well-structured, and diversified content system for general volleyball courses, based on students' needs and the requirements of physical education development. In teaching, instructors should affirm students' central role and adjust teaching strategies according to students' needs and abilities. Because indoor six-player volleyball with a standard hard ball has a high entry barrier for beginners, the syllabus can be adjusted by grade level, with different volleyball formats taught at different stages. For first-year students who are new to volleyball, air volleyball can be used to lower the learning threshold. This helps students understand basic rules and gameplay and increases learning motivation. In the second year, beach volleyball can be introduced. Playing on sand reduces the risk of injury when diving. With only two players per team, tactics are simpler, which supports tiered instruction and suits students at different skill levels. In the third year, indoor six-player volleyball can be taught. This format involves more players and more complex tactics. A staged progression can therefore be formed, with gradually increasing difficulty and enjoyment, which supports systematic skill integration. At each stage, instruction should consolidate the five basic skills and add advanced skill-tactic integration and cooperative drills. This can address different learning levels and strengthen game application ability.

Second, the course should expand beyond single-skill training and develop a four-dimension content system of "skills - tactics - culture - literacy." Instructors can integrate cultural and ethical elements by embedding volleyball culture, sportsmanship, and moral norms into teaching. Through introducing major volleyball events and stories of legendary athletes, students can experience the spirit of volleyball and achieve an organic integration of physical training and character development. The course should also improve students' exercise knowledge by promoting scientific training methods and including injury prevention, thereby strengthening lifelong sport awareness and competence.

Finally, teaching should reflect differentiation and personalization. Even within the same grade, instructors can regroup students based on prior experience and interest and adjust class schedules so that students with similar skill levels learn together. Different groups can then receive content at appropriate difficulty levels. A foundational improvement plan can be designed for beginners, while an advanced development plan can be offered to students with stronger backgrounds, to meet diverse learning needs [9]. In addition, enjoyable learning tasks and volleyball-based games can be included to improve tactical competence while enhancing course engagement and attractiveness.

4.2. Strengthening Faculty Development and Enhancing Teachers' Overall Competence

Faculty development is essential for improving course quality and effectiveness. Universities should adopt multiple measures to strengthen the teaching team for

general volleyball courses and enhance teachers' overall competence. First, universities should increase staffing by recruiting and attracting volleyball specialists through open hiring and talent introduction. They can also encourage other PE teachers to receive volleyball training and obtain relevant qualifications, to expand teaching capacity and reduce staffing pressure. Second, universities should optimize the staff structure. They should cultivate key teachers and academic leaders, and support early-career teachers through degree programs and professional promotion training, to improve the structure of academic credentials and professional titles. A mentoring system across senior, mid-career, and junior teachers should be established to support the rapid development of young teachers and raise the overall level of the teaching team. Third, universities should strengthen teachers' professional competence by organizing regular training on volleyball instruction and modern teaching methods, and by promoting advanced teaching concepts and skills. Teachers should be encouraged to engage in teaching research and curriculum reform projects, and to translate research outcomes into teaching practice, thereby supporting the coordinated development of teaching and research. In addition, universities should strengthen teachers' capacity for cultural and moral education by guiding them to identify and integrate the cultural and spiritual values embedded in volleyball, thereby improving educational outcomes.

4.3. Improving Resource Allocation and Strengthening Course Support

Adequate teaching resources are essential for stable course delivery. Universities should increase investment to improve resource allocation for general volleyball courses and strengthen support capacity. Funding should be expanded to upgrade facilities, including additional volleyball courts and more indoor courts, air-volleyball courts, and beach-volleyball venues, to match diversified teaching formats. Facilities should be inspected and maintained regularly, and worn or damaged equipment should be replaced in a timely manner to ensure safe and orderly teaching. Sufficient balls, nets, and officiating equipment should also be provided to meet teaching and training needs. In addition, universities should introduce modern instructional equipment and diversify resource types, such as multimedia devices, sport technique analysis systems, and virtual simulation tools. Video replay and movement breakdown can help students understand techniques more directly. Teachers should also develop online learning resources, including instructional videos, slides, and item banks, and build online learning platforms to support personalized learning.

4.4. Building a Scientific Evaluation System for Comprehensive and Multi-Dimensional Assessment

Universities should move beyond the limits of traditional assessment and establish a scientific, comprehensive, and multi-dimensional evaluation system for general volleyball courses, so that assessment can guide and motivate learning. First, evaluation indicators should be expanded beyond technical testing. A multi-component framework should include technical skills, learning attitude, sports ethics, teamwork, and participation. This approach assesses both skill mastery and broader competence and better reflects learning outcomes. Second, evaluation methods should be optimized by combining summative and formative assessment. Process-based components—such as in-class performance, after-class practice, and stage tests—should be included and account for no less than 40% of the total grade, while the weight of the final exam should be reduced appropriately. This design captures progress and individual differences and strengthens motivation. Third, evaluation

subjects should be diversified through a combined model of teacher assessment, student self-assessment, and peer assessment. Teachers provide professional judgments, students reflect on their own learning, and peer assessment strengthens communication and collaboration, which improves objectivity and fairness. Fourth, flexible standards should be adopted. Based on students' prior experience, tiered criteria should be used. For beginners, evaluation should emphasize progress and improvement; for more experienced students, it should emphasize technical advancement and capability extension. This helps each student gain a sense of achievement.

4.5. Using Multiple Measures to Increase Interest and Participation

Students' learning interest is a prerequisite for effective course delivery. Universities should adopt multiple measures to stimulate interest in volleyball and increase participation. Teaching should not be limited to classroom time. A continuous "before-class-in-class-after-class" approach can help students experience volleyball culture over time. Before class, universities can strengthen promotion through campus broadcasting, bulletin boards, and official social media accounts to disseminate basic knowledge, highlight the value of volleyball for fitness, and share event stories and the spirit of iconic athletes. Online learning platforms can also be used to provide pre-class resources, allowing students to preview content so that class time can focus on practice and interaction, thereby improving efficiency. During class, instructors can lower the learning threshold through step-by-step progression, streamline basic skill instruction, and use encouraging teaching to build confidence. Targeted support should be provided for students with weak foundations to reduce anxiety and support gradual improvement. After class, live-streaming and recorded sessions can be used for online Q&A and training guidance to support fragmented learning. Universities should also enrich extracurricular volleyball activities by developing clubs and interest groups and organizing regular events such as recreational games and skill challenges to build a strong campus atmosphere. Inter-university exchange matches should be encouraged to broaden students' experience and increase enthusiasm.

5. Conclusions

Advances in technology, economic growth, and the expansion of the sports industry have created favorable conditions for the development of university physical education. General volleyball courses should keep pace with developments in physical education by strengthening the teaching team, deepening curriculum reform, and continuously optimizing course structure, content, and teaching approaches. Universities should also strengthen coordination with community sports to promote the participation and development of volleyball in higher education. In addition, innovation-oriented research should be enhanced. Modern teaching technologies and methods should be introduced, and the educational value of volleyball should be explored more deeply to support high-quality, content-based course development. With strong institutional support and joint efforts by teachers and students, general volleyball courses can gradually overcome current constraints, improve teaching quality and educational impact, and contribute more to the cultivation of well-rounded talents with competence in moral, intellectual, physical, aesthetic, and labor dimensions, as well as to the development of the sports sector. More universities are expected to prioritize the development of general volleyball courses, advance reform

and innovation, and make volleyball a distinctive part of campus sports culture, so that sportsmanship can be sustained across generations.

Conflicts of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

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