

Original Research Article

Problems and teaching strategies for Wushu special courses in college public physical education for students with zero foundation and inadaptably physical conditions

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Abstract: As a traditional sport carrying profound Chinese cultural heritage, Wushu has become a popular elective in university public physical education, undertaking dual missions of fitness improvement and traditional cultural inheritance. In public Wushu classes, student groups show obvious heterogeneity. Many undergraduates have no prior Wushu experience, while some are restricted by objective physical conditions that hinder standard skill learning. Zero-background students lack basic motor awareness and technical literacy, leading to slow skill acquisition and irregular movements. Students with physical inadaptability suffer insufficient strength, limited joint flexibility and poor bodily coordination. They struggle to complete standardized actions and face risks of learning burnout and sports injuries. These problems reduce classroom teaching efficiency and hinder the implementation of student-centered personalized physical education. Based on the reality of university Wushu teaching, this paper analyzes practical difficulties of zero-foundation and physically constrained students, explores contradictions caused by individual gaps, monotonous teaching frameworks and unreasonable assessment mechanisms, and puts forward feasible optimized teaching strategies. It provides practical references for improving teaching quality, carrying out stratified personalized instruction and promoting the popularization of traditional Wushu culture in higher education.

Keywords: university public physical education; Wushu specialized teaching; zero-foundation students; physical inadaptability; differentiated instruction

1. Introduction

Against the background of university physical education curriculum reform in China, public physical education has shifted from simple fitness training to diversified goals including physical wellness, sports skill acquisition, personality cultivation and cultural inheritance. As a representative national traditional sport integrating fitness, self-defense, entertainment and moral education, Wushu is widely offered as a specialized elective course in universities. Different from professional Wushu training in sports academies, university public Wushu faces general undergraduates from various majors, who differ greatly in sports background, physical aptitude, learning capacity and interests.

With university enrollment expansion and diversified adolescent physical development, the proportion of zero-foundation and physically inadaptably students in Wushu classes keeps rising. Most undergraduates have never received systematic Wushu training before college and only hold superficial understanding of Wushu techniques. Long-term sedentary lifestyles and insufficient exercise result in stiff muscles, weak core stability and poor coordination among many students. A small number of learners have physical limitations that prevent them from completing high-difficulty Wushu movements.

Existing research on university Wushu education mainly focuses on curriculum construction, teaching innovation and cultural communication. Targeted studies on differentiated instruction for zero-foundation and physically inadaptably students remain limited. Starting from real-world teaching dilemmas of public Wushu special courses, this paper analyzes concrete difficulties of these learners, explores root causes, and constructs operable personalized teaching frameworks. It intends to resolve teaching conflicts caused by individual differences, improve the inclusiveness and effectiveness of public Wushu teaching, and support the sustainable development of national traditional sports education in universities.

2. Prevailing instructional difficulties of zero-foundation and physically inadaptible learners

2.1. Learning challenges confronting zero-foundation students

Zero-foundation undergraduates are the largest group in university public Wushu classes. Their core problem lies in the lack of pre-learning experience and Wushu literacy, reflected in three aspects.

Firstly, their cognition of Wushu is oversimplified and biased. Many students form impressions from martial-arts films and online media, mistakenly equating Wushu with combat and acrobatics. They lack basic understanding of technical norms, mechanical principles and coordination requirements of Wushu routines. At the initial learning stage, rigid postures, improper stances and disordered hand-foot coordination are common obstacles.

Secondly, skill acquisition is slow and movements are non-standard. Wushu routines demand coordinated hands-eyes-torso-steps, with strict requirements for movement trajectory, force transmission and rhythm. Without accumulated motor memory, beginners often show incomplete motion range, misdirected force and fragmented rhythm in basic practice. Restricted by unified teaching pace, teachers cannot provide repeated demonstrations and individual corrections. Most zero-foundation students only imitate superficial forms without mastering core movement principles.

Thirdly, insufficient self-confidence suppresses learning initiative. In group practice, beginners easily perceive capability gaps against experienced peers. Continuous difficulty in following schedules and defective movements produce inferiority. Gradually students become passive in training or even develop aversion to Wushu, damaging classroom atmosphere and overall teaching outcomes.

2.2. Learning barriers related to students' physical inadaptability

Physical inadaptability refers to objective bodily constraints, different from subjective learning deficiencies of zero-foundation students. It creates tangible obstacles for curriculum objectives, mainly shown in insufficient physical fitness and poor motor coordination.

On one hand, basic physical qualities cannot meet Wushu learning demands. Wushu fundamentals require certain flexibility, strength, endurance and balance. Long-term inactivity causes stiff waist and lower limbs and limited joint mobility for some students, making standard high kicks, splits and torso rotation hard to finish. Weak core and lower-limb strength lead to swaying stances and unstable body gravity. Some students also have low endurance and get fatigued quickly during routine training.

On the other hand, poor motor coordination hinders fluent movement integration. Wushu routine learning requires seamless combination of limbs, postures and rhythmic shifts. Some students have asynchronous hand-foot movements and disjointed rhythm, unable to connect single actions smoothly. Their rigid and fragmented routines cannot reflect the fluidity and aesthetic features of traditional Wushu.

Moreover, physical limitations raise sports-injury risks. If teachers force physically constrained students to practice high-difficulty movements for unified assessment standards, over-load training may cause muscle strains, joint sprains and lumbar injuries. These incidents harm student health and deepen psychological fear and resistance toward Wushu courses.

3. Root causes of existing instructional problems

3.1. Insufficient awareness of individual differences in teaching philosophy

Influenced by traditional collective teaching modes, most university PE teachers emphasize whole-class progress and task completion while neglecting personalized difficulties and physical variations among students. Pre-class surveys on students' Wushu background, physical fitness and learning expectations are often omitted, so it is hard to accurately identify features of vulnerable groups. Outdated teaching ideas result in poorly targeted lesson planning and adjustment, becoming the primary cause of persistent learning difficulties for zero-foundation and physically inadaptible students.

3.2. Monotonous and inflexible teaching methods

Teaching approaches in public Wushu classes are relatively unitary. The mainstream "demonstration-imitation-practice-correction" pattern fits students with good sports foundations but has limited effects for novices and physically constrained learners. Conventional classroom arrangements cannot offer targeted guidance for slow-progress students. Teachers seldom adopt layered instruction, micro-teaching and

scenario-based learning to decompose difficult movements and organize adaptive training according to individual needs.

3.3. Deficiencies in curriculum framework and resource allocation

Current Wushu curriculum systems lack modular and hierarchical design. Syllabi rarely set differentiated modules for learners with different foundations and physical capacities. Fixed teaching content has no simplified adaptive training suitable for vulnerable groups. In terms of resources, public PE courses have limited class hours and scarce after-class tutoring. Heavy teaching workload prevents teachers from providing one-on-one guidance for large numbers of struggling students, leading to insufficient instructional support.

4. Optimized teaching concepts and implementation strategies

Aiming at the difficulties of zero-foundation and physically inadaptible students, this paper puts forward the core idea of "student-centered, personalized adaptation, stratified progression and inclusive education". The unified collective teaching mode should be improved to realize precise instruction matching students' foundations and physical conditions, lower learning barriers and sports risks, and comprehensively improve Wushu teaching quality. Specific strategies are as follows.

4.1. Pre-class investigation and stratified grouping for targeted instruction

Before courses start, teachers conduct questionnaires and physical tests for all students. Questionnaires collect information on previous Wushu experience, sports interests and learning willingness. Fitness tests covering flexibility, strength, coordination and balance evaluate students' Wushu training capacity.

According to survey data, students are divided into three groups: Advanced learners with solid foundations, ordinary zero-foundation learners, and the special group with physical inadaptability. Teachers build personalized learning archives recording initial conditions, physical weaknesses and learning troubles, and set differentiated objectives. Advanced groups focus on improving movement proficiency, routine expressiveness and technical difficulty; zero-foundation groups emphasize basic posture consolidation and elementary-routine mastery; the physically constrained special group focuses on adaptive physical training, simplified movement learning and interest cultivation. These preparations lay the foundation for stratified teaching.

4.2. Construction of hierarchical modular teaching content

Wushu teaching content is reconstructed into three interrelated modules: Adaptive foundational modules, standard basic modules and advanced improvement modules.

For physically inadaptible students, adaptive foundational modules simplify high-intensity jumping, difficult stretching and strenuous strength segments of traditional routines, while retaining basic stances, simple punches and low-tempo elementary routines. Targeted training for flexibility, core strength and coordination is supplemented to improve physical adaptability and remove learning barriers.

For ordinary zero-foundation learners, standard basic modules serve as core content, including standard fundamental movements and complete elementary routines. More time is arranged for decomposed explanation and basic-skill consolidation to make up for their lack of prior experience and help them understand movement mechanics and force-transmission rules.

4.3. Diversified stratified pedagogical innovation

Targeted teaching methods are adopted for novices and physically constrained students.

Zero-foundation students apply "decomposed teaching + repeated consolidation + micro-video assisted learning". Complex routines are split into single movements for separate practice before recombination. Micro-lesson videos of basic techniques support after-class review to compensate limited in-class time and accelerate motor-memory formation. Incentive teaching is used to recognize small progress and build learning confidence.

Physically constrained students follow the model of "adaptive conditioning + progressive learning + one-on-one correction". Targeted physical training is carried out for individual weaknesses. Movement teaching follows the principle from simplicity to complexity, from slow to fast. Over-rigid standard requirements are relaxed; students finish actions within safe physical limits with gradual optimization of movement standardization. Individual correction is provided for learners with severe coordination deficits.

Cooperative group learning is also promoted. Mixed-ability groups realize peer assistance between advanced students and disadvantaged learners, creating positive classroom atmosphere and reducing learning pressure.

5. Conclusion

Zero-foundation students and physically inadaptable learners commonly co-exist in university public Wushu special courses. Individual differences are key factors restricting teaching-quality improvement. Traditional unified teaching cannot satisfy diversified learning demands, and may cause low learning efficiency, loss of self-confidence and potential sports-safety risks among vulnerable student groups.

Under university physical education comprehensive reform, Wushu specialized teaching must adhere to the student-centered idea and fully respect individual disparities. Solving learning difficulties of zero-foundation and physically inadaptable students should be taken as a core breakthrough point. Teaching optimization can be realized through pre-class stratified grouping, modular hierarchical content design, diversified personalized teaching methods and inclusive process-oriented evaluation frameworks.

This teaching framework effectively makes up for traditional teaching defects, reduces learning barriers and injury risks, and arouses Wushu-learning interest. Learners of different abilities can achieve skill improvement and cultural cognition growth. Accordingly, the inclusiveness, pertinence and effectiveness of university public Wushu education are enhanced. Meanwhile, it gives full play to the educational value of national traditional sports, promotes campus popularization and inheritance of Wushu culture, and provides practical references for innovative reform of traditional-sports public education in higher education.

References

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