

# Exploring the Application of Educational Management Methods in the Balanced Allocation of Physical Education Resources

Xiaolong Zhang<sup>1,2</sup>

<sup>1</sup>Xi'an International Studies University, Xi'an, Shaanxi, 710128, China

<sup>2</sup>Woosong University, Daejeon, 34606, Republic of Korea

## ABSTRACT

The balanced allocation of physical education resources is a fundamental pillar for advancing educational equity and fostering health literacy, necessitating systematic optimization through modern educational management paradigms. This study establishes new standards for resource equity centered on accessibility, adaptability, and developmental potential, grounded in the resource allocation functional framework of educational management. Addressing current allocation system dysfunctions, it reveals structural contradictions, including planning parameter deviations at the top-level design stage, efficacy monitoring gaps in operational oversight, and fragmented accountability chains in stakeholder coordination. Grounded in problem diagnosis, it innovatively proposes an integrated governance solution. This pathway dismantles resource flow barriers through management innovation, institutionalizing spatial justice values within physical education. It provides an actionable governance model for advancing educational equity and national health strategies.

## KEYWORDS

Educational management; Physical education; Balanced allocation of resource

## 1 Introduction

Against the backdrop of China's ongoing educational strategy promoting students' comprehensive development, the unique educational value of physical education—enhancing youth physical fitness, forging character, and cultivating well-rounded personalities—has gained widespread recognition. Its status as a vital pillar of the basic education system is universally acknowledged. However, it must be acknowledged that severe spatial imbalances persist in the current allocation of physical education resources: These structural disparities manifest across urban-rural regions and between schools in resource endowment. Research data indicate that per-student sports facility areas in some underdeveloped regions fall far below the national average. Such profound imbalances compromise curriculum implementation quality in underprivileged schools and create unequal starting points for students in accessing physical development opportunities, thereby hindering the fundamental goal of fostering virtue through education. Existing improvement pathways primarily focus on visible resource supplementation, such as increased fiscal investment and facility upgrades. While necessary, these measures fail to address the core issue. Without scientific management and efficiency optimization mechanisms, incremental investments may trigger resource misallocation or even exacerbate systemic disparities.

## 2 Theoretical linkage between educational administration and equitable allocation of physical education resources

### 2.1 Core function of educational administration in resource allocation

Educational administration systematically integrates human, material, and informational resources, fundamentally establishing efficient operational mechanisms to achieve educational objectives. This system is a critical strategic converter within the resource allocation process, dedicated to transforming limited resources into sustainable educational provision capacity. Its primary functions manifest across four interrelated dimensions: scientifically forecasting educational development needs and formulating forward-looking plans; defining the responsibility boundaries of each implementing entity to establish a collaborative distribution network; continuously tracking resource flows and implementing dynamic adjustment mechanisms; and establishing an effectiveness evaluation system to drive the optimization and upgrading of resource allocation. The synergistic effect of these functions propels a fundamental transformation in management models—shifting from extensive allocation reliant on experiential judgment to refined management grounded in objective evidence. This transition signifies a qualitative leap in physical education resource allocation, evolving from passive response to proactive design <sup>[1]</sup>.

## 2.2 The essence of balanced allocation in physical education resources

The essence of balanced allocation in physical education resources lies not in pursuing absolute equality but in striving for relative fairness in developmental opportunities. Its core principle encompasses two dialectically unified levels: the foundational level requires ensuring all schools meet the nationally mandated baseline standards for physical education facilities, enabling students to access services that satisfy fundamental physical and mental development needs; the enhancement level necessitates implementing compensatory principles based on regional developmental disparities, providing targeted reinforcement support to resource-deprived areas. This equilibrium involves the coordinated development of diverse elements such as facilities, equipment, specialized faculty, and curriculum systems. Its profound value lies in overcoming developmental limitations caused by geographical disparities, creating relatively equal opportunities for physical literacy development among students from diverse backgrounds. This concerns the concrete practice of educational equity principles and lays a robust physical foundation for cultivating modern citizens with well-rounded personalities.

## 2.3 Modern educational management as a scientific pathway for resource equilibrium

Traditional administrative directives are increasingly inadequate for addressing practical needs because of physical education resource allocation challenges. Modern educational management's scientific, systematic, and human-centered characteristics offer new pathways to resolve the equilibrium dilemma. This involves: - Innovating decision-making mechanisms by establishing a scientific model that integrates needs assessment, gap diagnosis, and effectiveness evaluation; - Reengineering processes to create a closed-loop management system encompassing planning formulation, resource allocation, process monitoring, and outcome feedback; Elevating the focus beyond quantitative indicators of material resources to prioritize educational outcomes such as students' physical fitness levels, acquisition of athletic skills, and cultivation of sportsmanship. The deep application of this management paradigm fundamentally ensures that resource allocation adheres to procedural justice while embodying substantive fairness through institutional design. Only when management processes effectively integrate all links in the resource allocation chain can a fundamental shift from inefficient consumption to high-efficiency output be truly achieved <sup>[2]</sup>.

# 3 Current practical challenges in sports education resource allocation management

## 3.1 Insufficient scientific top-level planning leads to mismatched supply and demand

The deep-seated root cause of the current imbalance between supply and demand in physical education resources lies in the failure of the planning and decision-making system to complete its transition toward scientific approaches. Most regions still adhere to the traditional allocation logic dominated by administrative hierarchy, whose core flaws manifest in the following disconnects: Resource allocation plans are disconnected from geographical realities, failing to establish flexible adaptation mechanisms for natural conditions such as mountainous terrain constraints and extreme climatic features; Resource allocation standards are disconnected from students' physical fitness needs, neglecting the developmental characteristics of students across different educational stages and regional health issues; Existing resource assessments are disconnected from incremental planning, resulting in new facility layouts failing to effectively integrate with the spatial distribution of existing resources. This detached planning paradigm leads to significant resource misallocation: some urban schools face underutilized sports facilities due to oversupply, while small rural schools persistently struggle with basic venue shortages. More critically, the absence of public participation channels has long excluded physical education teachers' practical teaching experience and students' actual physical activity needs from decision-making processes, trapping planning schemes in a self-perpetuating design loop. When resource allocation fails to reflect educational needs authentically, increased investment creates an illusion of formal equity.

## 3.2 Lack of process oversight and performance evaluation leads to low efficiency

The management vacuum following resource allocation is steadily eroding resource utilization efficiency. Current oversight mechanisms suffer systemic shortcomings: education authorities overemphasize resource allocation while lacking comprehensive tracking systems for facility operational efficiency. This manifests in management blind spots: inadequate professional maintenance accelerates abnormal wear and tear; absence of routine course implementation oversight leads to distorted teaching standards; weakened student safety mechanisms heighten sports risks. Structural biases in the effectiveness evaluation system further exacerbate these institutional flaws. Assessment metrics disproportionately emphasize hardware parameters like venue size and equipment quantity, while downplaying core educational value indicators such as student physical fitness improvements and athletic skills advancement. This distorted

evaluation orientation reduces resource allocation to a policy showcase project, failing to reflect genuine demands for educational quality enhancement. The failure to establish a results-driven accountability chain at the institutional level has created a severe disconnect between investment responsibility and output effectiveness. The comprehensive failure of oversight mechanisms fundamentally blocks any possibility for improving resource allocation <sup>[3]</sup>.

### **3.3 Inadequate collaborative governance mechanisms limit resource integration**

The core obstacle to integrating physical education resources lies in structural flaws within the institutional framework for collaborative governance. The government-led, single-dimensional supply model remains constrained by institutional barriers, with its core contradiction manifesting as a dual isolation: Spatially, school sports facilities and community public sports resources are institutionally fragmented. The chronic underutilization of community sports venues during school hours coexists with persistent shortages of school athletic spaces, lacking shared agreements based on functional complementarity or technical integration platforms. Regarding actors, professional sports organizations face institutional barriers when seeking to integrate resources into educational settings. Potential resources—such as elite athletes' specialized skill transfer, sports clubs' training programs, and corporate facility sponsorships—struggle to enter the school system through standardized channels. More critically, the lack of incentive alignment mechanisms—lack of cost-recovery rules for social participation and legal safeguards for collaborative outcomes—fragments the governance network. This fragmentation drives resource allocation toward closed, self-sustaining cycles, undermining overall supply efficiency and constraining educational equity. The absence of horizontal institutional linkages progressively widens structural disparities in students' access to sports opportunities.

## **4 Implementation pathways for promoting balanced physical education resources using educational management methods**

### **4.1 Applying scientific planning methods to optimize macro-level top-down design**

To address supply-demand mismatches at their source, scientific planning methods must be applied to the top-down design of resource allocation <sup>[4]</sup>. First, education authorities should spearhead the establishment of a regional database on physical education resources and student development needs. This database should comprehensively and dynamically collect foundational information, including student enrollment figures, physical fitness monitoring data, facility and equipment status, and teacher allocation across all schools. Second, leveraging this database, employ educational statistics and measurement techniques to construct a differentiated, student-centered resource demand assessment model that precisely calculates resource gaps across schools. Based on this, formulate medium-to-long-term plans and annual schedules for allocating physical education resources within the region. Prioritize limited incremental resources toward rural areas and underperforming schools with the greatest needs, shifting from egalitarian distribution to targeted compensation. Simultaneously, planning should incorporate open decision-making mechanisms through public hearings and expert consultations.

### **4.2 Introducing performance management methods to establish a dynamic evaluation and adjustment loop**

The core strategy for enhancing resource utilization efficiency lies in establishing a full-cycle regulatory loop centered on performance management. This mechanism comprises four key components: goal orientation, process verification, outcome evaluation, and dynamic refinement. Implementation pathways must focus on structural improvements: - At the initial resource allocation stage, explicitly establish a performance target system with measurable attributes. Core indicators must transcend superficial dimensions like physical facility completion rates and deeply anchor to educational effectiveness dimensions. For example, use the improvement rate in students' physical fitness levels and the proportion meeting daily physical activity participation standards as core assessment benchmarks. During implementation, establish a routine quality inspection mechanism. Integrate educational administrative departments, subject teaching and research resources, and cross-disciplinary professional institutions to form a multidimensional quality assurance consortium. Conduct regular resource allocation quality diagnostics and operational guidance. In the periodic evaluation phase, a scientific benefit analysis model will be constructed to systematically assess actual educational output value through comparison against pre-set target achievement rates. Crucially, assessment outcomes must be effectively translated as the basis for accountability evaluations to enforce performance-based rewards and penalties and as core input parameters for subsequent resource planning. This establishes an iterative upgrade mechanism for optimized resource allocation. The creation of this performance feedback loop signifies a systemic shift from static resource

distribution to continuous improvement.

### 4.3 Establishing collaborative governance models to expand resource supply and sharing channels

To overcome the challenge of limited resource supply, barriers must be dismantled to build a new collaborative governance model led by the government, anchored by schools, and involving multiple societal stakeholders. First, governments should enact policies to dismantle institutional barriers between schools and community sports facilities. This can be achieved through government procurement of services and staggered access hours to promote two-way resource sharing between schools and communities. Second, robust incentive mechanisms should be established to encourage social participation in school sports<sup>[5]</sup>. Examples include offering tax breaks to companies that donate to education and creating honorary recognition and service hour certification systems for elite athletes and coaches who provide services in schools. Third, explore establishing district-based or group-based sports resource sharing mechanisms. Within school districts, coordinate and allocate high-quality resources such as renowned sports instructors, specialized courses, and competitive events to leverage strengths and address weaknesses, thereby comprehensively elevating regional sports education standards. Through collaborative governance involving multiple stakeholders, integrate societal sports resources into schools to create a synergistic supply system.

## 5 Conclusion

The equitable distribution of physical education resources is a foundational undertaking that impacts educational equity and the nation's future. The crux of its implementation has shifted profoundly from merely increasing resource inputs to the scientific management of existing resources and systematic innovation in allocation models. The current challenges in top-level planning, process management, and social coordination stem fundamentally from the lag in traditional management thinking and methods. Future endeavors must constitute a profound governance transformation guided by modern educational management concepts and equipped with scientific management methodologies.

### About the Author

Xiaolong Zhang, Associate Professor, Department of Physical Education, School of General Education, Xi'an International Studies University; Doctoral Candidate in Educational Administration, Woosong University, Republic of Korea (Class of 2022); Research Focus: Physical Education Teaching Management and Training.

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