

THE APPLICATION OF AHP METHOD ON THE DEVELOPING STRATEGY PLANNING
OF PHYSICAL EDUCATION

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ABSTRACT

In modern society, physical education has more and more important social function. It concerns with politics, economics, education, social concepts and social living customs. In this paper, to improve the level of our physical education, we systemically describe the works and tasks of whole physical education, and analyse the influencing factors relating to the four aspects of physical education. As a result of working with experts, we put forward the concrete ways to bring about the general goal, give the final calculated results, establish some new concepts and provide much important decision information to the decision maker. This article has been written according to the project report about "DEVELOPING STRATEGY PLANNING OF PHYSICAL EDUCATION OF BEIJING".

Much concerns and dependents with each other are shown in the domains of modern society. Physical education has important social function now. In international politics, the level of athletic sports becomes a synthesized indication of one country's strength. In economics, physical education acrossacts with other domains to produce many new physical industrials. With the development of economics and the improvement of people's living standard, physical consumption will become an important part of social living. Now, it is experiencing the reform of social concepts and social living customs. Mass sports provide wide and solid basis about social supporting and material condition. The improvement of athletic sports level, with the socialization of physical education, is connected with economics to a great extent. The over advanced strategy of athletic sports is limited by the level of economics, education and mass sports. So we emphasize the equivalent development of physical education with economics and education.

The structure of the target system of developing strategy about physical education is shown by the figure 1, which has four hierarchies*, they are general goal, strategy aims (4), influencing factors (12) and judging rules (28). We will explain the contents of each item of the target system as follows.

General goal A: To fully fulfill the social functions of physical education and athletic sports, and make the level of Beijing about physical education and athletics achieve and keep it as long as possible the most advanced level in our country or the advanced level in world.

* In original report, there are six hierarchies. In addition to above, it also has practise steps (51) in the fifth hierarchy and non-completed subordinate practise steps (35) in the sixth.

Strategy aims S1-S4:

- S1: Athletic sports which level is mainly demonstrated by the total number of gold, silver, bronze medals in the Olympic, Asian and National games.
- S2: Sports education which means the whole education condition of physical education field, including physical teachers colleges sports in school and university, the disseminating extent of physical or sports knowledge in society and physical customs, etc.
- S3: Sportsfield and sportshall which chiefly points the quantity, quality and completeness of the fields and halls.
- S4: Mass sports which chiefly means the extensive range, deepness or general sports conditions.

Influencing factor T1-T12:

T1: Sports training mainly refers to athletic sports training. It also includes amateurish sports training. The level of athletic sports training may be used as three indexes to judge it. See table 1. The synthesized value can be calculated by the indexes value multiply their weight and then sum them up.

Table 1.

index	weight
ratio of talented sporters	0.7089
level of talented sporters	0.1786
top period of talented sporters	0.1125

- T2: Decision making and management mainly refers to the various decisions by the leader of Physical Sports Committee of each grade, the daily management of each department of PSC, and the decisions relating to physical sports by the center and local government.
- T3: Physical research refers to researches such as physical exercise, training, competitions, equipment, nourishment, restoring and health caring, selecting and cultivating talented children in sports and computer application, etc.
- T4: Physical education in school and university refers to the sports in schools and colleges, cultivating and training in amateurish and special sports schools. This is the basis of selecting and training the talent children in sports and cultivating reserve sporters.
- T5: Social environment mainly refers to the across-sections of physical education concerned with economics, politics, social livings and social public opinions which are intensely influencing physical education and athletics sports. Let's look at table 2.
- T6: Sports in society mainly refers to the spread of mass sports, including the sports in enterprises or by individual.
- T7: Talented people group includes the persons of decision making and managing, service ensuring, researching, teaching, training, judging and sporting in the physical system. It may be used of reasonable ratio, quantity and quality to judge the group of talented people in system.
- T8: Material ensuring mainly refers to the money and service ensuring. Let's look at figure 2.
- T9: Physical theory determines the whole movement of physical education. It may be divided into basic theory, applying theory and special sport theories in hierarchy and other fields shown in table 3.

Table 2.

Physical industrials	Sports labour Sports goods (athletic equipment) Physical publication Sports advertisement Interview by sports Physical literatures and arts Health service and care by sports Sports travel Sports television Sports broadcast Physical institute actions Special sport union actions Sports society actions
Physical propagation and public opinions	
Actions of physical associations	

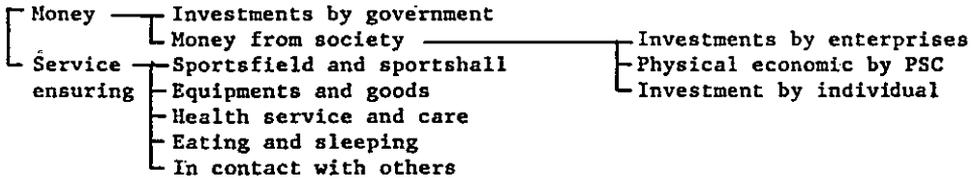


Figure 2.

- T10: Sports competition includes athletic and un-athletic sports competitions of various hierarchies and sports items. It has important influence on competition which improve the spread of general mass sports and the level of athletic sports.
- T11: Physical system includes organization system of athletic and un-athletic sports. It may be divided into many sub-system according to their functions. Let's look at figure 3.

Table 3.

Physical economics Physical culture Scientific physical theory Sports training Health service in sports Biological mechanics in sports	Sports psychology Physique (constitution) Physical information Physical statistics Physical education in school and university Computer applications in physical education
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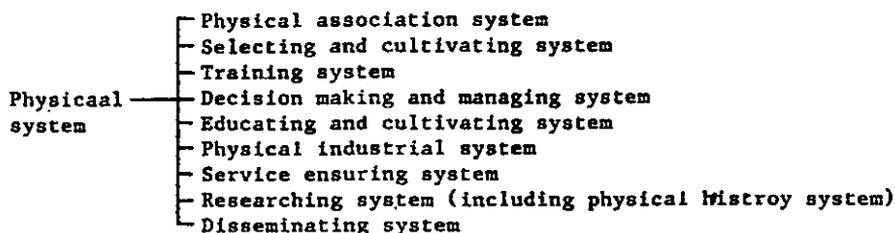


Figure 3.

T12: Physical legal system includes the legal system of country and locality. It may mainly stipulate the contents and affecting sphere of organization, competition, physical compulsory education, sportsfield and sportshall building, physical funds collecting and etc.

The explanation of 28 judging rules are compacted as follow due to pages limiting, that is to see the following:

- Judging rule C01: All-round education and management in sport teams.
 C02: The scientification and modernization about training methods and means.
 C03: Developing strategy planning.
 C04: Promoting and harmonizing in system and out system.
 C05: To establish and perfect the managing regulations and system.
 C06: The modernization of researching methods and instruments.
 C07: Student constitution.
 C08: The scientification and modernization of teaching materials and teaching methods.
 C09: The output values and profits in phusycal industrials.
 C10: Good social physical prevailings.
 C11: Concerned extent with physical education in society.
 C12: Disseminating extent of physical knowledges.
 C13: The scale and level of mass sports.
 C14: The quantity and quality of advanced county in physical education.
 C15: Teachers college education and teachers cultivating.
 C16: High quality researching group.
 C17: Circulating of talented people.
 C18: Cadres at their posts to cultivate speciality.
 C19: Selecting and cultivating talent children in sports.
 C20: The enterprise funds of physical education.
 C21: Investment in sportsfield and sportshall.
 C22: Sports education funds.
 C23: Service ensuring quality.
 C24: The reasonblity of hierarchy arranging and sport items disposing in athletic sports competition.
 C25: The extensivity of mass sports competition.
 C26: The level of theory consummation.
 C27: Specializing extent and high harmonization in system.
 C28: The consummation and level of physical legal system.

According to the opinions of experts, we get all judgment matrices of the target system structure, the final calculatic result is shown in table 4 It is compacted here.

Table 4.

Orderby weight	Item	Weight	Important grade
1	Decision making and managing	0.192500	First
2	Materials ensuring	0.175228	
3	Physical theory	0.127535	
4	Talented people group	0.119909	
5	Physical system structure	0.102750	
6	Sports training	0.062361	Second
7	Physical education in school and university	0.053761	
8	Physical research	0.050171	
9	Sports competition	0.039818	Third
10	Social environment	0.033896	
11	Sports in society	0.024348	
12	Physical legal system	0.017694	

Conclusion: To the general goal, T2, T8, T9, T7 and T11 are primary factors, T10, T5, T6 and T12 are secondary factors, T1, T4, and T3 are between the two above groups. That is to see, we should attach importance to the factors affecting whole system, foundation and overall progress. Sports training is not a primary factor now. Not only is the whole system perfect and harmonious, but also foundation is solid and many progress is stable. Physical education will be developed to be prosperous and kept for long periods. Conversely, the best result is only a pulse result is only a pulse result. This is very bad to the benefit of putting in and producing out. In following hierarchy, the calculative results will be more obvious to show this character, and provides theory bases and directions to various important decisions of PSC. In this paper, we don't intend to move forward about it.

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BIBLIOGRAPHY

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