Research on the Evaluation System of the Balanced Development of Physical Education in China

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Abstract — On the basis of analyzing and deducing the principle of educational equity and the theory of balanced development of education, this paper expounds the theoretical connotation of the balanced development of school sports. Put forward the concept of balanced development of physical education school level based on. Construct the evaluation index system of the balanced development of school sports and make an empirical study. Based on the school level, taking the Henan middle school as the research object, the evaluation index system of the balanced development of the school sports has been constructed and the empirical study. From the regional balance, level of school physical education development between different regions in our country middle school is currently showing a non-balanced state, plenty of traditional school of sport at the provincial level and provincial normal school sports resource allocation, and municipal ordinary middle schools and belonged to the rural middle school resources relatively lacking. Is the balance of urban and rural, the traditional school of sport at the provincial level and provincial normal school sports work to carry out a better environment, municipal general middle school environment in general, belonged to the rural school environment is poor.

Keywords - physical education; educational balance; fair principle; evaluation system

I. INTRODUCTION

Promoting educational equity is an important task of our country's education at the present stage, and educational equity is the foundation and guarantee of social equity, which is in line with the overall interests of China's society. In order to realize the education equity, the government put forward the measures and objectives of the balanced development of compulsory education [1]. As a part of education, school physical education should take the balanced development as the value orientation [2]. What is the logical relationship between educational equity and balanced development of school sports? How can a more balanced degree of objective and comprehensive evaluation between different regions, different school sports work? This paper tries to under the theoretical framework of educational equity, combined with the actual situation in China, construction of balanced development of school physical education evaluation index system, to the level of evaluation the balanced development of school physical education, so as to solve above problems and provide some ideas and inspiration [3]. China's population is numerous, different regions between the level of economic development and cultural background differences larger, long-standing urban-rural dual structure, resulting in rural and urban areas in the level of economic development and culture exist huge gap, the level of economic development and a cultural background are two main factors that affects the quality of education, level and scale, so educational undertaking of our country in the nationwide level of development is very unbalanced [4]. Scholars on the performance characteristics of the balanced development of education in our country were summarized as follows: "this difference from the macro aspects see performance for the Ministry of our country thing the difference between urban and rural difference, from the micro aspect to see for the performance differences among the regional differences, inter school [5]. Some school based differences can be resolved through the government behavior in a short period of time, such as the difference of material and economic conditions, some differences in a short time is cannot be eliminated, such as the difference in the school of history and culture [6]. To promote fairness in education is to realize social fairness and the foundation and the premise, education, especially basic compulsory education if it can't keep toward balanced development, education fairness ideal can only be castles in the air, social equity is more impossible [7].

II. STATE OF THE ART

In recent years, the balanced development of education become a hot topic in the research field of education in our country, because it is not only related to promote equity in education and improve the efficiency of education, but also related to the social background of our country at the present stage, compulsory education foundation, global and leading to a more stable play a role [8]. The logical starting point of the balanced development of education is the problem of how to recognize and understand the connotation of the balanced education; Chinese scholars have interpreted it from different angles [9].
education is education balanced development, actually refers to the thought of fair education and principle of educational equity, domination, educational institutions and the educated in educational activities, educational ideal of equal treatment of students and ensure the practical education policy and legal system [10]. Zhu Jiacun will be understood as a balanced education ideal of education and the corresponding educational policy system [11]. Liu Ying proposed a balanced education is about education resource allocation and education career development process and results of the state description, it contains the meaning of equality, but that does not mean egalitarian distribution of educational resources, but depending on the circumstances, be treated differently [12]. Tian Fen believes that the balance of educational system should refer to the relationship between the various parts of the education system and the coordination and stability of the elements. The balanced development of education from different angles of interpretation, such as the balance between education supply and demand, and the balance of educational system at all levels, between different regions, the same region between different schools and its specific contents include: popularity level, Ban Xuebiao quasi, teachers, and funds into the four aspects "[13]. According to the fact that Tian Fen combines the educational activities, the connotation of educational balance is further embodied in practice, and the four fundamental [14]. Ding Jinquan defined the balanced development of education as the equilibrium state of the educational resources and educational outcomes in a certain area. This definition is under the premise of balanced development, education, and regional concepts to facilitate investigation and manipulation of research [15]. Also the reason why the author from access to resources and the output angle that angle of educational processes and outcomes of education equilibrium are defined, according to the needs of the study's authors, so this definition is only from the balanced development of education in a perspective of and make operational definition, but the progress is proposed education balance problems in empirical research should be carried out under the premise of point of view in the concept of regional space. School sports resources as shown in Figure 1.

Figure 1. School sports resources

Interpretation of the National Center for Education Development Research for the balanced development of basic education covers from the macro guiding ideology, to the specific requirements of the micro level of practice, on the balanced development of education related theory and empirical research has important guiding significance.

III. METHODOLOGY

A. Research Ideas

Theoretical study on first to on balanced development of school physical education in the problem of locating and analysis of connotation as well as the core concepts of development; then from the perspective of appraisal of lay the theoretical foundation for constructing the balanced development of school physical education evaluation index system, and finally put forward the balanced development of school physical education present situation evaluation ideas and methods. An empirical study on first in the balanced development of school physical education theory to guide the construction of school physical education balanced development evaluation index system as an evaluation tool, select the middle school in Henan Province as the research object, in order to grasp the current situation of the balanced development of school physical education as evaluation objective, the development status quo of sports in different areas of Henan Province, the school between evaluation, through the comparison and analysis of the results, measure the equilibrium degree. Through theoretical development and empirical research, current situation of sports balanced development of middle school in Henan Province understanding, clear school sports non balanced development of the characteristics of the status quo, analysis of the main influencing factors, through to individual school district school sports equalization measures to develop the case introduces, provide some ideas to promote the balanced development of all regions of the country school physical education. The basic guideline of the research was shown in Figure 2.

Figure 2. The basic guideline of the research

B. Concept of Balanced Development of Physical Education in Schools

Balanced development is not balanced, but equalitarianism. Balanced development is not a short-term development, but a long-term sustainable development, the balance is relative, cannot be static. In the dialectic view, the
the reality of basic level, so the logical starting point of it is a level to reflect the balanced development of education in school education level micro balance to reflect, so the school education eventually to pass between the school and the education, at the same time, they also reflect the basic carrier of the basic unit of the balanced development of compulsory education, so the majority of balanced development of education in our country at the present situation of educational equilibrium, balanced education, at the same time, they also reflect the basic carrier of the balanced development concept development. The balanced development of education is a long-term, complex, systems engineering, contain many problems, and therefore may be from multiple angles and multiple levels of interpretation: such as the embodiment of the individual education between the equal rights of social balance, emphasis on equality of educational resources allocation of economic equilibrium; from the start of the education system to reduce the city and countryside, between regions, regional interscholastic gap in the educational levels of education balance and so on. In our country, the research on educational balance is mainly based on the basic position of regional equilibrium, that is, regional development and the level of school development. Because from the perspective of regional and school to study the educational balance, to facilitate the relevant empirical investigation and evaluation, but also has the practical significance and value. The balanced development of education in our country at the present stage of the proposed mainly refers to the balanced development of compulsory education, so the majority of primary and secondary schools became the implementation of the basic unit of the balanced development of compulsory education, at the same time, they also reflect the basic carrier of the present situation of educational equilibrium, balanced education eventually to pass between the school and the school education level micro balance to reflect, so the school level is to reflect the balanced development of education in the reality of basic level, so the logical starting point of it is school sports balanced development concept development.

C. Construction of Evaluation Index System of the Balanced Development of School Sports

According to the determined prior to the balanced development of school physical education evaluation theory model: the four dimensions according to the context, input, process and result to determine a level indicators, level indicators were set as: school sports social environment index, school sports resources allocation refers to the development of anything should be followed by the "balance" to "imbalance" and then to the "new balance" so that the spiral rises of the law of change, the balanced development of education is no exception. We should not only dialectically understand the "equilibrium", but also a historical and specific interpretation of "equilibrium", which requires the combination of China's current situation, do everything from reality, mainly dealing with two relations, the first is the overall and local interests, because at this stage our country puts forward the balanced development of education the fundamental purpose is not limited to the pursuit of balance itself, its ultimate purpose is to promote the coordinated development of education; second is the trade-offs between short-term and long-term interests, in order to promote sustained and long-term development of education, will not only focus on the immediate local interests, to help China's education in the future long-term stable development there may be a need to temporarily sacrifice some of the short-term local interests, towards the balanced development of education must proceed from China's actual conditions, the vision of development to the overall strategy.

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D. Evaluation and Calculation of the Balanced Development of School Physical Education

The evaluation index system of scoring methods are as follows: with each of the three index scores were multiplied by the index weights obtained the final score of the third class indicators, and then belong to a secondary index of all three levels of indicators in the final score the sum of the secondary index rating scores drawn; calculated the score of the second level indicators in the future also used the secondary indexes evaluation score multiplied by the corresponding weight coefficient, ask again and draw the final score of the second level index level indicators. A holistic approach to score the balanced development of School Physical Education: to every school as a unit calculated overall scores of evaluation and calculation method is 4 first class indexes were multiplied by the weight coefficients of each and then sums, namely that each school sports of the balanced development of the overall score.

\[ S = A \times W + A_2 \times W_2 + A_3 \times W_3 + A_4 \times W_4 \]  

Among them, \( S \) represents the school's overall score; \( A \) represents school sports resources score; \( W \) represents school sports resources weight coefficient. According to table 1, this result can be derived.
\[ S = 0.6635 \times 0.3774 + 0.7643 \times 0.2781 + 0.7266 \times 0.245 + 0.6986 \times 0.1 = 0.7099 \] (2)

### TABLE I: STATISTICS OF THE INDEX SYSTEM OF THE BALANCED DEVELOPMENT OF PE AT SCHOOL

<table>
<thead>
<tr>
<th>School sports resources</th>
<th>Score</th>
<th>Weight coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.6635</td>
<td>0.3774</td>
</tr>
<tr>
<td>A2</td>
<td>0.7643</td>
<td>0.2781</td>
</tr>
<tr>
<td>A3</td>
<td>0.7266</td>
<td>0.245</td>
</tr>
<tr>
<td>A4</td>
<td>0.6986</td>
<td>0.1</td>
</tr>
</tbody>
</table>

#### E. School Sports Balanced Development Evaluation Index Score Analysis

From the point of view of level indicators, the school sports resource allocation that A1 index score is 0.7, which belongs to the medium level; School Physical Education Index A2 score of 0.8 belongs to a higher level; the score of school sports results of A3 and school sports environment A4 are 0.7 belongs to the medium level.

School sports resources of three secondary indicators: scores of funding for sports and sports equipment respectively 0.3 and 0.7, belongs to the medium level, the sports teachers scored 0.8 belong to a high level. This shows that the allocation of sports resources in the school, sports funding is relatively weak, and the level of physical education teachers is relatively good. School physical education process category of the two 3 indicators: the school sports management, sports teaching implementation and extracurricular sports scores of three indicators have reached 0.8, at a higher level. This shows that the school physical education work from the process, the overall is good. School sports results include two secondary indexes: the students' physical learning effect and the construction of campus sports culture two index scores are at about 0.6, which belongs to the partial middle level, the campus sports culture construction and low score and score results showed that the overall effect of the school students of the sports learning in general, the campus sports culture construction situation is not ideal, but also need to further strengthen. School sports environment of two secondary indexes the evaluation scores of the family influence and school sports external environment is not at the same level, the family influence a score of 0.8, belongs to a higher level, and the external environment of school sports score is only 0.5, which belongs to the lower level.

### IV. RESULT ANALYSIS AND DISCUSSION

#### A. Analysis on the Overall Result of the Balanced Development of School Sports

This study through questionnaire survey method, interviews and field observation methods, a large number of data and information, as the realistic basis of job evaluation; in the questionnaire of the preliminary design work and data collection process, this paper strictly follow the scientific research norms, procedures and principles, to the greatest extent ensures the scientific and accurate information acquisition, finally, we use the above method, the balanced development of school physical education evaluation index system to assess the survey of 18 high schools, the standard of.

Through sampling survey of 18 middle schools, the school sports development to higher levels of just two, accounted for almost 11%; which reached middle level schools and 12, the proportion of 67%; in the lower level of 4, the proportion of 22%, as shown in Figure 3.

![Figure 3. The result of the investigation in proportion of the 18 middle schools](image)

#### B. Analysis of the Current Situation of the Regional Balance of Physical Education in Middle School

Features of geographical range of this study in Henan Province 17 prefecture level city, two stratified sampling, respectively to the city province where is the first level, to the level of economic development for the second layer standard of twice sampling and ultimately selected for the Department of the provincial capital of Zhengzhou, Henan Luoyang, Henan area of Hebi, Henan, central Pingdingshan, Henan Xinyang and emerging industrial city hired as the object of investigation for the six regions.

After calculation, the evaluation score of each area see Figure 4 and table 2.

![Figure 4. The average scores of the schools in different area](image)
The content of the chart, in 6 regions of the survey, from the balanced development of school physical education evaluation score average value: first, the school sports development level of the capital of Zhengzhou is the highest, the average score is 0.80, reached a high level; secondly, the average score in the middle level area according to the order value the order of Pingdingshan (0.67), Luoyang (0.66) and Hebi (0.62), in which Pingdingshan and Luoyang the gap of the level of small and middle school sports development level in Hebi area in the middle and lower position in three; the average score, Jiaozuo and Xinyang by four to five homes are 0.59 the two, although the area is in low level, but from the score looks very close to the middle level, and the average score gap is only 0.1.

<table>
<thead>
<tr>
<th>Area</th>
<th>Zhengzhou</th>
<th>Luoyang</th>
<th>Jiaozuo</th>
<th>Hebi</th>
<th>Pingdingshan</th>
<th>Xinyang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Level</td>
<td>0.80</td>
<td>0.66</td>
<td>0.59</td>
<td>0.62</td>
<td>0.67</td>
<td>0.59</td>
</tr>
<tr>
<td>Level</td>
<td>High</td>
<td>Secondary</td>
<td>Low</td>
<td>Secondary</td>
<td>Secondary</td>
<td>Low</td>
</tr>
</tbody>
</table>

C. Analysis on the Evaluation Results of the Balanced Development of School Physical Education Between Urban And Rural Areas

Through questionnaire survey and on-the-spot observation, in the statistics of income information based, on two types of schools were evaluation of the balanced development of school physical education in the status quo, and two secondary level indicators score average value as shown in Figure 5. Evaluation results show that in the school sports resources allocation, education process, education and the environment of the four indicators, Henan Province, the average level of the two types of secondary schools in the city have not reached a balance, there is a gap. The evaluation results show that: at present, there is a big gap between urban and rural middle schools in Henan Province in terms of the starting point, the result and the environment of the school sports, the imbalance development is more serious.

V. CONCLUSIONS

The principle of fair education "starting point of the" fair and "context, input, process and output system model of education is an important basis for the balanced development of school physical education in the theoretical foundation and the school sports balanced development concept development. In a particular aspect of the school sports work together to achieve a certain level of benchmark under the premise, the different schools in the school social environment of sports, sports resources allocation, the process of physical education and effect reached close to each other and balance. From the regional balance, level of school physical education development between different regions in our country middle school is currently showing a non-balanced state, plenty of traditional school of sport at the provincial level and provincial normal school sports resource allocation, and municipal ordinary middle schools and belonged to the rural middle school resources relatively lacking. Is the balance urban and rural, the traditional school of sport at the provincial level and provincial normal school sports work to carry out a better environment, municipal general middle school environment in general, belonged to the rural school environment is poor.

REFERENCES

JING WANG et al: RESEARCH ON THE EVALUATION SYSTEM OF


