CHAPTER 13
Self-Adaptive Learning based Autonomous Test Framework to Improve Physical Fitness

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ABSTRACT

With the persistent change of schooling in our nation, increasingly more consideration has been paid to the development of understudies' athletic skill. Nonetheless, the current assessment techniques for understudies' actual capacities are single and don't accord with the instructive idea of "individuals arranged". Along these lines, the plan and development of the assessment arrangement of actual capacity of understudies in the world dependent on neural organization BP calculation were advanced in this paper, and the neural organization BP calculation was clarified using self-Adaptive learning based autonomous mobile network. Through the trial test, it tends to be reasoned that the assessment framework can exhaustively think about the understudies' circumstance and do distinctive assessment measures. Furthermore, the last assessment of understudies is somewhat sensible, which can excite the eagerness of understudies, and raise the consciousness of understudies' deep rooted work out using the self-adaptive learning-based Autonomous test framework. To look for the improvement opportunity and stage coordinating with the world, many countries have accepted the games as the advancement point, and the games advancement has become the public key advancement project. In this unique situation, how to deal with the games business has become the focal point of examination. In this paper, the current home ground and worldwide games the board model was investigated, and the working component of sports the executives mode was talked about; joined with the poll review strategy and the master scoring technique, the upsides of the current games the board instrument were examined based on the SWOT examination, in order to add to the improvement of the games the executives framework and the advancement of the improvement of sports endeavours.

Keywords— *Mobile network, BP (Back Propagation) algorithm, SWOT analysis, mode advantage, operating mechanism...*

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INTRODUCTION

With the continuous reform of education, the quality education of college students has become the focus of higher education. Because of the continuous improvement of people's living standard, many college students have poor physical fitness and lack of physical exercise. Moreover, there are no perfect systematic evaluation standards for the students' sports ability in universities, and the final test results are often used as the final evaluation criteria [1]. At the same time, because of the influence of many reasons, the university pays more attention to the way of training the students' sports ability, while neglects the way to evaluate the students, thus leading to the unscientific and irrational results of the students' evaluation, which does not accord with the educational idea of "people oriented and student cantered" [2]. Therefore, how to build a scientific and reasonable evaluation system of college students' physical ability has become the focus of university research, and it is also the focus of this article.

According to the relevant investigation and research, there are obvious differences in physical quality of college students at present. Relevant experts have agreed that the physical ability of college students in the world is lower than that of the five areas, and the awareness and ability of college students in lifelong exercise are also worrying [3]. Through the investigation of the self-evaluation of college students in the globe, it can be found that most college students have good basic physical ability goals, but the target execution capacity and the success rate are low, which shows that there is a big gap between college students' physical ability goals and sports ability training, so that students can't continue to carry out physical exercise with their perseverance using the self-adaptive learning-based Autonomous test framework [4]. However, there are three main reasons for this phenomenon: firstly, people's living standards continue to improve, while the opportunity to exercise in life is decreasing. Secondly, in the training of College Students' sports ability, our world is still in the stage of continuous exploration, so that there is lack of scientific and systematic evaluation system, and the standard of diagnosing and grasping the sports ability of college students is comparatively deficient [5]. Finally, because college students are still in a stage of ideological construction, the attitude towards sports ability training is not correct, and the awareness of physical exercise and their own ideological quality is not high and needs further strengthening.

In recent years, the main points of view are concentrated in two aspects. One is that students' physical ability refers to the students' ability to recognize and master sports. And on this basis, the psychological quality and behaviour of the training can adjust the way and process of the physical activities that they participate [6]. In this view, there are five factors in physical ability: students' cognitive ability in sports, students' physical ability and adaptability, the ability to exercise scientifically, and the ability to evaluate physical exercises. Another point of view is that students' sports ability can be divided into two kinds: general ability and special ability, in which, the general ability refers to the ability to grasp "three basic elements" of physical education and self- exercise ability evaluation, while special ability includes mental and physical qualities, physical fitness and adaptability [7]. However, these two points of view have their own emphasis, and can't effectively evaluate the physical ability of college students.

This paper analyzes the domestic and foreign research status of sports management mode, and discusses the operation mechanism of the existing sports management mode; the third part uses the SWOT analysis method, the questionnaire survey method and the expert scoring method to design the questionnaire to study the advantages of sports management mode; the fourth part analyzes the dominant factors of sports management by survey results; the fifth part is the summary of the full text, and draws the conclusion, so as to provide support for the analysis of the advantages of sports management model based on SWOT analysis technology using the self-adaptive learning-based Autonomous test framework.

RELATED WORKS

At present, there are problems in the evaluation system of college students' physical ability, as follows: first of all, the evaluation system lacks continuity in the process of evaluation. Under normal

circumstances, the college students' physical ability test is carried out through the midterm and final exams, while the performance and homework are not evaluated. Therefore, such evaluation process and results are not scientific and objective, and the evaluation system is imperfect [8].

Secondly, the current evaluation system of sports ability is relatively weak in principle. The weakness of the principle is mainly manifested in the students' evaluation process, lacking in the implementation of the students' physical and mental development. Thus, the principles and results of evaluation are not scientific [9].

Thirdly, the current evaluation of student physical ability is relatively lacking in effectiveness. The reason is that when the students' physical ability is evaluated, most teachers pay too much attention to the students' sports results and evaluate them on the basis of it, thus leading to the phenomenon that students pursue results and neglect basic skills [10]. For example, in the evaluation of students' basketball shooting skills, speed is also one of the important criteria, but students blindly pursue the speed and ignore the use of shooting skills. Figure 1 shows the spot of ability test and evaluation of some sports in colleges and universities.

SWOT analysis is also called situation analysis; SWOT is the abbreviation of strengths, weaknesses, opportunities, and threats. SWOT analysis is a comprehensive analysis method, it divides all the influencing factors into internal factors and external factors, and then divides the internal factors into two sub categories: the dominant factor and the inferior factor, at the same time, the external factors are divided into two sub categories: opportunity factor and threat factor. The researchers divide the factors into four parts, and arrange them in a matrix, and then analyze the four parts of the system. SWOT analysis method is easy to operate, the limiting factors are less, and the conclusion is clear image, it can provide a clear idea for the study, so that researchers can grasp the key problems and analyze them, and then come up with convincing measures or suggestions. Therefore, SWOT analysis method has been favoured by many managers, especially managers, and has become one of the most important strategic methods for management researchers.

Since twenty-first Century, with the rapid development of Internet technology, the integration of the world economy and economic globalization, the worldwide network and information are gradually integrated into people's lives [11]. Electronic commerce is a new low-cost way or means based on Internet [12]. This kind of means affects people, companies and enterprises, which is an important trend of global development [13]. Relying on the Internet and the Internet of things, all kinds of e-commerce are constantly emerging and developing [14]. E-commerce is based on the harmonious development of information network, cash flow and logistics [15]. Logistics distribution is an important guarantee for the realization of e-commerce trade, and it is an important part of e-commerce. If there is no modern logistics technology and system, changes brought about by e-commerce will eventually become a bubble.

For logistics companies, the development of logistics system needs to adapt to the development of society [16]. In the current social environment, the logistics system needs to be able to coordinate and develop with e-commerce [17]. Logistics informatization of the company is based on the development trend of the social environment, the existing logistics process and predictable development direction of the company, and the requirements for the collection, storage, exchange and distribution of logistics information [18]. Through the use of the company's internal information systems, external logistics data information, the Internet and other resources, the development of logistics information market, mobile network and digitalization can be promoted, the existing logistics management system can be improved, and new opportunities can be discovered and analyzed, so as to make better logistics strategy. From the perspective of the overall situation, it is one of the main means to improve the national competitiveness and promote the rapid development of the national economy. At the same time, it is also an important way to improve the competitiveness of enterprises [19]. The logistics industry has a low threshold and a small scale. The related management level is low, and the technical level is relatively backward [20]. Logistics infrastructure needs further improvement. In order to improve the overall level of logistics industry and

complete the quality of macroeconomic operation in the short term, enterprises and government have realized that it is necessary to start from the weak link of logistics information, so as to promote other aspects of logistics reform, and change the current situation of logistics in the e-commerce environment.

Through the comprehensive application of information technology, logistics information technology can improve the management level and service quality of logistics industry, and reduce energy consumption and damage to the environment, thus to change the mode of economic growth [21]. It mainly includes three aspects: the first one is the construction of the basic environment. Logistics related laws and regulations should be developed, and the construction of the logistics core technology and other infrastructure should be carried out. The second one is the construction of public logistics information platform. An open network information platform can be provided for all kinds of users to share information and services. And the third one is the construction of the internal information system of logistics enterprises. The construction of internal information system is the basis of logistics informatization.

In the process of the theory and application of logistics industry, the logistics informatization is an important issue. In twentieth Century, some scholars have pointed out that one of the long-term development trends of international logistics industry is logistics informatization [22]. In twenty-first century, there are more and more researches about the present situation and problems of logistics informatization. Through the classification of the different levels of logistics information, some scholars have summed that, the current situation of logistics information is low, the logistics information system is few, and the information system is less, such as the lack of relevance [23]. The ultimate goal of logistics informatization is to improve enterprise benefit. Foreign scholars have carried on the research to the logistics informationization and the enterprise benefit. Some scholars have believed that in the logistics supply chain management, integrating information flow is as important as integrating material flow. Some scholars have believed that the integration of information flow can improve logistics efficiency. Some scholars have believed that, in the process from the supplier to the consumer, the coordination of each main body of supply chain in the operation of logistics is the integration of logistics. The main goal is to improve the efficiency of the supply chain, so as to improve the efficiency of individual enterprises. In addition, many foreign scholars have believed that the simple information system is not more important than the strategic information sharing. Thus, the essence of logistics integration is the consideration of safety production and service.

It can be seen from the above that the key to improve the efficiency of enterprises is the integration of logistics information. However, from the point of view of practical application, in the company's internal and supply chain, the logistics information is rarely truly integrated. It also shows that the theory of logistics informatization needs further study. Based on the rapid development of e- commerce in recent years, the new theory of information logistics is studied in this paper.

METHODS AND MATERIALS

With the application of management theory and the emergence of interdisciplinary subjects, SWOT analysis has gradually entered the field of sports. By using the SWOT analysis method, through the comprehensive and systematic analysis and the study of the internal and external environment of the object, the author puts forward some countermeasures for the further development of the subject, which is of great significance. Specifically, the characteristics of the SWOT analysis are shown in the following table.

Table 1 Characteristics of SWOT analysis using the self-adaptive learning-based Autonomous test framework

Characteristic	Description

Qualitative analysis and quantitative analysis	SWOT analysis method combines with quantitative analysis and qualitative analysis; it makes up for the lack that a single method is prone to missing.
Comprehensive consideration of internal and external factors	Through the analysis of the internal and external factors of the research object, the present situation of the research object is fully considered, and the one sidedness of the problem is avoided; and then, the four parts are discussed separately, which can increase the possibility of logic and avoid the single problem.
Simple and easy to master	It can quickly spread from the field of business management to the management, public utilities and other management areas.

QUESTIONNAIRE VALIDITY TEST

The validity of the questionnaire: the validity of the questionnaire was tested by the stability of the questionnaire. After completing the first questionnaire seven days later,10 people in the first survey of experts were tested with the same questionnaire, the correlation coefficient of the questionnaire was obtained by correlation analysis and significance test of the data: $R=0.84$, $P<O.01$. The reliability of the questionnaire was significant, and the validity of the questionnaire met the requirements of the investigation. Specific data are shown in the following table.

Table 2 Basic situation of expert scoring

Expert constitution	Professor	Associate professor	Total
The number of people	9	1	10
Percentage	90%	10%	100%

Table 3 Expert validity evaluation

	Reasonable	Quite reasonable	Commonly	Unreasonable
The number of people	4	5	1	0
Percentage	40%	50%	10%	0%

Through the above analysis, this paper analyzed the advantages of sports management mode, and the following advantages were obtained through the statistical analysis of the effective questionnaire.

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Table 4 Analysis of the advantages of sports management mode using the self-adaptive learning-based Autonomous test framework

Advantages	N(20)	Percentage
It helps to ensure the rapid development of competitive sports	19	95%
It uses administrative means to complete the task of competitive sports ability	17	85%
The advantages of the project can be maintained	16	80%
Administrative centralization can effectively integrate all kinds of resources	15	75%
The management subject has authority	10	50%

Based on the above analysis, this paper identified the key factors of SWOT in sports management system, and designed the second expert questionnaire. On the basis of the results of the first questionnaire, the same group of experts chose the important factors of the sports management mode, and a five-degree of importance scale was designed in each aspect; the values were 5, 4, 3, 2, 1 from very important to unimportant, and the average value of the main factors was not less than 3, as shown in the following table.

Table 5 Key factors of sports management mode using the self-adaptive learning-based Autonomous test framework

	N	Mean value	Standard deviation
It helps to ensure the rapid development of competitive sports	20	4.05	0.471
It uses administrative means to complete the task of competitive sports ability	20	4.0	0.943
The advantages of the project can be maintained	20	3.85	1.699

Through the questionnaire survey and expert interviews, it can be found that most of experts believe that the whole nation system can guarantee the rapid development of competitive sports [24]. Its internal advantages include: the whole nation system can effectively protect the rapid development of competitive sports; the administrative means can quickly and effectively achieve the goal of competition, and can maintain the dominant position of the traditional advantages of the project. Although the advantages of the internal of the whole nation system are obvious, and there are a lot of external opportunities, the disadvantages and threats are also obvious. In particular, the whole nation system is not suitable to the market economy, which will bring a lot of external threats. The developmental disorders caused by the whole nation system of competitive sports have gone beyond the advantages and opportunities of the national system for its own development space, and have become the main factor restricting the development of the system of competitive sports. In view of the above problems, this paper puts forward some suggestions for the development of sports management mode: (1) The management system of competitive sports must change its own weakness with the attitude of positive change, absorb the external threats and transform it into own advantages. (2) On the basis of the national policy, the government should exercise the administrative means with the condition and purpose and make full use of the government's financial support to ensure the rapid development of competitive sports, so as to improve

the distribution of interests under the pattern of diversification of interests to resolve conflicts among different interests; at the same time, it is necessary to respect for athletes and coaches, and the state administration of physical education should keep self-restraint and give full play to the initiative of athletes and coaches in the process of sports training, so as to improve the training mechanism and retired mechanism of athletes, and pay attention to the cultivation of professional athletes' cultural quality. (3) It is necessary to make full use of stable external environment to exert the superiority of the system; the government only retains the basic functions of supervision and management functions, and the main body is operated by the market, so as to gradually promote the industrialization and marketization of competitive sports.

The difference between logistics information and information logistics is that: logistics informatization is the form of using information technology to increase and improve logistics efficiency in the existing logistics resources structure using the self-adaptive learning-based Autonomous test framework. After the use of information reaches a certain height, the information flow will highlight its own impact on the existing logistics resources matching, logistics methods and business model reform, so as to break through the existing framework of logistics information resources and transform the existing logistics into information flow.

CHARACTERISTICS OF INFORMATION LOGISTICS

Information logistics has the following characteristics: the first one is the openness. Each main body in the logistics supply chain can voluntarily join or withdraw from the system. In the information logistics system, each subject can choose the type of logistics according to their own resources and technical expertise. The supervision mode of information logistics system is changed from the traditional examination and approval system to the post legal responsibility system. The second one is the publicans. Information logistics is the basic construction of logistics information and related services. Each logistics participant can join or withdraw independently. The information logistics system can provide the participants with more technology and matching services, and logistics information help. This allows most of the logistics participants, especially small and medium logistics join the social logistics division with low cost. In other words, the information logistics system reduces the technical threshold of social logistics resources, giving more opportunities for participants, especially small and medium participants. The third one is the ecological behaviour. Through the sharing and processing of logistics information, all the participants in the logistics information system can form a collaborative logistics community.

In recent years, with the development of science and technology, globe's e-commerce trade is also developing rapidly. 2011-2013, these three years are taken for example, as shown in table 6.

Table 6 E-commerce market data sheet

Year	National e-commerce transaction volume	Growth rate
2011	6 trillion	33.3%
2012	7 trillion and 800 billion	30.6%
2013	10 trillion and 100 billion	29.8%

Table 7 The initial evaluation index system of logistics informatization level using the self-adaptive learning-based Autonomous test framework

First grade index Ai	Second grade index Bi

A1 Information infrastructure	B11 computer networking rate; B12 hardware installation level; B13 software advanced level; B14 information activity level; B15 information utilization value rate; B16 information sharing rate; B17 hardware facilities stability; B18 management system sound rate; B19 information input proportion; B20 information technology talent proportion
A2 Business operation status	B21 order processing time; B22 order processing accuracy; B23 supply guarantee rate; B24 contract fulfilment rate; B25 service informatization level; B26 decision level
A3 Customer service level	B31 damage rate; B32 the standard rate; B33 customer satisfaction; B34 average delivery date
A4 Cost and profitability	B41 unit logistics cost; B42 proportion of logistics costs; B43 logistics cost control level; B44 inventory unit cost; B45 capital turnover rate; B46 information contribution to profitability

At the same time, the requirements for electronic commerce are more and more strict. Logistics informatization needs to adapt to the development of the society. In order to better explain the new theory of information logistics, it is necessary to carry out research and Analysis on the basis of logistics Informatization [24]. Through the principal component analysis, the level of logistics informatization is evaluated. Then through the comprehensive finishing, the related factors of information logistics are obtained. The main idea of the principal component analysis is to avoid the subjective thinking, integrate a number of indicators into a small number of indicators, reduce the number of related variables, and get a lot of information and comprehensive analysis of the specific objectives of the problem [25].

DETERMINATION OF INITIAL INDICATORS OF LOGISTICS INFORMATIZATION

There are many factors that influence the level of logistics informatization, which must be based on the systematic, hierarchical, comparable, general and economic principles. Combined with the characteristics of logistics related companies, with the help of expert advice, market research, questionnaire survey and other methods, the evaluation indicators of logistics information are obtained.

By using the principal component analysis method, the information evaluation index and the weight distribution of the index are determined. In each principal component, the load value of the original index and the difference of the factor values reflect the size of the effect, which can provide the basis for determining the weight of each index, and reduce the interference of human factors.

Table 8 Initial evaluation index system of weighted logistics informatization level using the self-adaptive learning-based Autonomous test framework

First grade index Ai	Second grade index Bi (the weight is in the brackets)

A1 Information infrastructure (0.42)	B11 hardware equipped level (0.215); B12 software advanced level (0.182); B13 information activity level (0.111); B14 information utilization value (0.115); B15 management system sound rate (0.073); B16 proportion of information input (0.119); B17 proportion of information technology professionals (0.185)
A2 Business operation (0.28)	B21 order processing time (0.112); B22 order processing accuracy (0.151); B23 supply guarantee rate (0.095)
A3 Customer service level (0.12)	B31 damage rate (0.105); B32 customer satisfaction (0.145); B33 average delivery time (0.085)
A4 Cost and profitability (0.18)	B41 unit logistics cost (0.065); B42 logistics cost proportion (0.105); B43 logistics cost control level (0.275); B44 capital turnover (0.185); contribution rate of B45 information to profit (0.165); B45 contribution of informatization to profit (0.165)

RESULT ANALYSIS AND DISCUSSION

The main body of the operation includes two groups of logistics provider and demander, which are also important parts of information logistics. Logistics provider is the supplier of logistics related activities, such as warehouse, classification, distribution and other services. Logistics provider is the main body of logistics operation, which is also an important participant in the information logistics system. The demand side is the one who needs logistics. The main basis of the customized product planning and development planning is the demand side's logistics demand information.

The support system is the combination of the information logistics and the related interests. Logistics operation main body, support system, information platform constitute the information logistics cost network. Logistics is a comprehensive industry, derived from the useful combination of different operations, but also requires a large number of matching services to support, such as maintenance of logistics equipment, upgrade information systems, etc.

Information platform is the central nervous system of information logistics system. Information platform is the medium of information exchange and information sharing among different subjects. Logistics information platform and e-commerce platform constitute the information platform. Its main function is to collect, sort out and send the logistics operation information to the participants in the system. Logistics information platform is to provide information on logistics services, while e- commerce platform is to provide information services required by logistics.

Table 9 The main logistics operation system in information logistics system using the self-adaptive l earning-based Autonomous mobile framework

Logistics demand information	Logistics intermediate information	Logistics information
Logistics service demand side generation	Provision of social institutions	Logistics service provider

1. Spatial Information	Weather information	1. Capacity information
Logistics starting information	Temperature information	Daily order quantity
Logistics terminal information	Wind information	The number of logistics vehicles
Logistics route information	Humidity information	Business coverage
	...	...
2. Time information	2. Road information	2. Storage capacity
Logistics timeliness information	Traffic information	Logistics centres at all levels
Logistics start time information	Rate information	Warehouse area
...	...	...
3. Cargo information	3. Policy information	3. Service level
Weight	National macro logistics policy	Average number of delivery times per unit time
Volume	...	Unit distance average transit time
Store information	4. Market information	...
Transportation information	Industry research	4. Price information
...	Economic environment	Self-pricing basis
4. Price information		Competitor reference pricing
Demand price		...
...		

Information logistics system is a socialized logistics system. As the system, the logistics operation information is its input, and the logistics infrastructure service is its output. In theory, logistics demand, supply and logistics are regarded as the information of logistics operation. Logistics demand information generally refers to information put forward by logistics service demand side about logistics and time and space requirements. It includes the nodes in the process of logistics operation, the effectiveness of logistics services, product packaging and transportation requirements. Logistics supply information refers to the information provided by the logistics provider on the quality of logistics services, including the transport capacity, storage capacity, freight prices, etc. The logistics intermediate information includes the weather, the corresponding market information, and the traffic condition and so on. The details of these three types of information are shown in table 9. They can be converted into commercially available information through the adoption of an information-based logistics system.

Information logistics is an open social logistics system. Ideally, each part of the system is able to independently access to resources matching, operation and other related logistics information, so as to make the most favourable program. At the same time, from the perspective of the overall situation of social development, through the information logistics system, different participants in the logistics industry can develop harmoniously, survive together and compete effectively.

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Logistics information plays an important role in traditional logistics operation. Information flow has little effect on the increase of logistics benefit. In other words, because of the lack of a mechanism to coordinate, enterprises will lose the benefit when sharing logistics information. The reason is that one of the central resources of the company's business is logistics operation information, which has a profound impact on the company's logistics business strategy and implementation. The company can't share its own logistics information without benefit, so it is difficult to integrate the social logistics information. After summing up, the reasons for the inadequate use of logistics information are: 1. Technical problems. Logistics information level is not enough so that the logistics company's ability to collect, integrate and process information is not enough. Logistics demand is too scattered, changeable, which has a higher demand for information acquisition capabilities. 2. Benefit mechanism problem. The important resource of the enterprise is the logistics information. The company is lack of power to share information with others. In other words, due to the lack of a mechanism to coordinate, the company will lose the benefit when sharing logistics information.

TECHNICAL BASIS

The information logistics system has changed the present situation of technical problems. The development of Internet, cloud computing and other high-tech has provided a technical support for the collection and integration of logistics information. And the openness and sociality of the information logistics system have provided opportunities for the individual companies to integrate into the broad market. Participants are able to break through the time and space constraints of the real economy.

BENEFIT MECHANISM

Information logistics system can provide a variety of basic logistics services for the company. E-Commerce platform has a large number of logistics demand information, which breaks the current situation of the monopoly of the logistics demand information, and reduces the status of logistics demand information in the company. Therefore, the logistics demand information is devalued in the information logistics system.

Due to the emergence of information logistics system, more companies can have a broader market docking capabilities, and can collect logistics demand information in the market. In the information logistics system, the information resources can be fully utilized, and the information resources can be changed from static to timely, which is more conducive to the development of the logistics industry.

In this paper, 10 college students were selected to evaluate their physical ability, 5 boys and 5 girls were chosen to carry out the 800-meter running test. Under normal circumstances, the passing test of 800-meter race for university boys was 3 minutes and 30 seconds, and the passing test of 800-meter race for girls was 3 minutes and 50 seconds, and the unified standard evaluation results were unreasonable for some students. Therefore, according to the physical quality of each student and the observation and evaluation of the students in the normal teaching, the 800-meter running performance of the 10 students was predicted by the neural network BP algorithm, as shown in Table 10.

Table 10 Students predicted passing grade of 800-meter running using the self-adaptive learning-based Autonomous test framework

Number	1	2	3	4	5
Boys	3'05"01	2'59"22	3'31"43	2'41"32	3'43"45
Girls	3'58"21	4'11"02	3'21"55	3'13"24	4'05"33

In this paper, according to the predicted results and students' daily performance and achievement, the students were evaluated comprehensively. And taking into account the difference in the physical quality

of each student, the results were compared with the actual performance of the students. And through the neural network BP algorithm for calculation, if the value was within a certain error, student passed a test. As shown in Table 2, the student forecast and actual performance error range and corresponding results were presented.

**Table 11 Range of errors in students' prediction and actual achievement and corresponding results**

P	C	Achievement
>0.91	<0.36	excellent
>0.79	<0.51	good
>0.69	<0.65	pass
0 .69	0.65	unqualified

The actual test scores and predicted results of 10 students running at 800- meters were compared. From the data in the table, it can be seen that the errors of the actual test scores and the predicted results of most students were within the pass range, and only a small number of students had a larger range of errors. Considering the actual situation, in addition to the difference of students' physical quality, there were still many other factors. Therefore, the final score of the 800- meter student should also be evaluated in accordance with the usual results, and the students who made significant progress in the overall performance should be given the affirmation of the scores.

Table 12 Comparison of actual test scores and predicted performance of 10 students in an 800-meter run using the self-adaptive learning-based Autonomous test framework

Number	1	2	3	4	5
Boys	3'05"01	2'59"22	3'31"43	2'41"32	3'43"45
Actual achievement	3'02"15	2'59"01	3'33"01	2'41"29	3'59"12
Girls	3'58"21	4'11"02	3'21"55	3'13"24	4'05"33
Actual achievement	3'57"01	4'16"43	3'39"24	3'10"12	4'01"55

Figure 1 shows the evaluation results of the university student's physical ability evaluation system based on neural network BP algorithm. As can be seen from the data in the figure, the majority of students believed that the evaluation system was more reasonable than the general evaluation, and could make a relatively objective and true evaluation of each student according to the actual situation. For students of poor physical fitness, their own efforts were reflected and affirmed, so that their confidence could be enhanced in exercise. Moreover, this evaluation method could stimulate students' enthusiasm for sports ability training. The final test was no longer the final result, but more attention was paid to the teaching and application of physical ability in the course of teaching, which was helpful to improve the awareness of college students' lifelong exercise. At the same time, some students believed that the system was still lacking in the evaluation of students' usual performance, and needed further improvement.
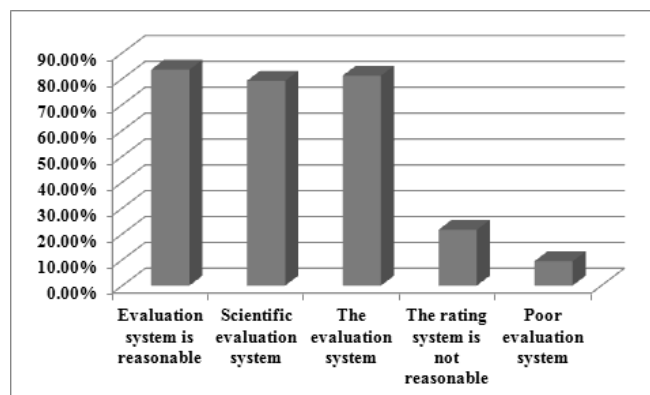
Figure 1 The evaluation results of college students' physical ability evaluation system based on neural network BP algorithm

CONCLUSION

The development of science and technology will certainly bring convenience to people's life, and will also affect the physical exercise of college students. In order to improve the college students' sports ability and cultivate the students' awareness of lifelong exercise, it is of great significance to build a perfect, scientific and reasonable evaluation system of students' physical ability. In this paper, the evaluation system of college students' physical ability was designed and constructed based on the neural network BP algorithm. And the concrete algorithm of this system was expounded explicitly. Through the evaluation of the 800-meter achievement of college students, the evaluation system was tested. From the experimental data, it can be seen that the system is more reasonable to predict students' physical ability, and can be combined with students' usual performance to conduct a comprehensive and comprehensive evaluation. At the same time, taking into account the individual differences of each student's physical quality, assessment of each student is different, which can reflect the students training efforts in sports ability, and also can arouse the enthusiasm of the students, thus avoiding the problems of uniform standards in traditional evaluation methods and reducing the phenomenon that students blindly pursue the result and neglect the application of sports ability. However, there are still shortcomings in the evaluation of the students' normal time, which need further improvement. This study used SWOT analysis method, the questionnaire survey method and the expert scoring method to design the questionnaire of the factors related to the advantages of sports management model, and analyzed the advantages of the sports management model, and concluded the internal advantages: the whole nation system can effectively guarantee the rapid development of competitive sports, administrative means can quickly and effectively achieve competitive goals, and can maintain the dominant position of the traditional advantages of the project. In view of the weakness and threat in the management mode, the corresponding improvement strategies were put forward in this paper: the sports management mode should actively change and improve the interests of the allocation, and should make full use of the external environment to further improve the sports management system.

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