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THE USE OF MULTIMEDIA NETWORK PHYSICAL EDUCATION TRAINING PLATFORM IN COLLEGES AND UNIVERSITIES

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Abstract

Sports entrepreneurship training platform is a new idea of physical education curriculum reform, which combines campus competitive sports, group sports and innovation and entrepreneurship to form a circular teaching platform system. Multimedia teaching is the product of multimedia technology and its application in teaching, and it is a way for multimedia teaching to make full use of the network to spread. The purpose of this paper is to analyze and study the physical education practice in colleges and universities based on multimedia network. In recent years, with the vigorous advocacy of quality education, a number of novel teaching methods have been continuously derived from physical education activities in higher vocational colleges, and training task teaching is one of them. Students, as the new force of innovation and entrepreneurship in colleges and universities, play an important role in the promotion and development of projects. The research method of this paper is to establish the model diagram, algorithm formula and corresponding data diagram to study and analyze it. Through the research in this paper, it can be seen that the physical training in colleges and universities has a correlation with multimedia network, and the influence is as high as 68.35%. Through the research of this paper and the analysis of the research results of this paper, in the future, college physical education training will have certain development and promotion under the guidance of multimedia network.

Keywords: Multimedia information data; Physical education; Training platform

1 Introduction

In college education, network education resources play an important role, which can make college education not stick to the traditional teaching mode, keep pace with the times and have unlimited possibilities. In a sense, the network education resources of colleges and universities based on multimedia technology can make teachers break through the limitations of the previous classroom content in classroom teaching, and to some extent, they can break through the time and space limitations of the classroom by giving lectures in more diversified forms of expression, so that their time and space can be extended. Although multimedia and network technology can bring great help to education and teaching, it also puts forward higher requirements in multimedia and network management. Schools need to innovate teaching ideas, not only to improve students' comprehensive quality, but also to enhance their innovative and entrepreneurial ability, and at the same time to ensure a healthy body. Physical education is a course that can release students' nature most among all disciplines, and it is also a very important subject at present. In sports activities,

students can not only strengthen their physique, but also develop a positive and optimistic attitude and character. Under the condition of multimedia network, students can not only get a lot of information from various media, explore this nonlinear information in their own customary way, but also express their views in various media ways. Because of its image and transformation, multimedia makes people who receive education and training more able to concentrate and improve efficiency [1]. CAI system is not only a computer system, but also a teaching system. For students, it is a learning environment. For teachers, it is a tool for teaching and guiding students to learn. For administrators, it can be used to collect and manage learning data. The components of CAI system are CAI teaching environment-computer system (hardware system+software system) and CAI teaching software reflecting teaching content and teaching process. The physical health level of college students has been declining year by year in recent 20 years, and the situation is grim. It is found that college students don't pay attention to physical exercise, besides irregular work and rest time and unreasonable diet. How to arouse students' sports enthusiasm through extracurricular activities has become the primary problem in higher education. At present, the latest development is the emergence of modern information technology represented by multimedia network and its corresponding teaching and development technology. Multimedia system, with its advanced technology and powerful functions, has been rapidly developed and applied in teaching, representing the development direction of modern teaching technology [2].

Reasonable innovation of physical education in physical education activities in higher vocational colleges. Learning sports benefits, as a course combining theory with practice, and practice occupies a large proportion, can improve the effectiveness and effectiveness of physical education teaching through training. Task-based teaching method organically integrates practical training, practical operation, practice and task-based teaching method, and has made outstanding contributions to the innovation and development of physical education. In the aspect of teaching application, it is of great value to study the application of practical training teaching method in physical education for better application of practical training task teaching method in college physical education.

In this paper, a variety of research methods are used to analyze and study it. In the research of multimedia network, the corresponding model diagram and algorithm formula are established to analyze and study it. In the research of physical education training in colleges and universities, a number of data graphs are established to analyze and understand them.

2 Related Literatures

The task of practice training in colleges and universities is to cultivate students' basic quality and comprehensive professional ability, that is, the integration of students' knowledge, skills and attitudes. It is mainly realized through comprehensive homework, design, simulation training, practice and other teaching activities. In the whole process of practice training, we should pay attention to the law of knowledge, skills and attitude migration, transformation and integration.

Innovation and entrepreneurship in colleges and universities provide a series of welfare policies and benefits for college students. However, in the actual development stage, the problems of innovation and entrepreneurship in physical education institutions are manifested in: insufficient cognition, lack of entrepreneurial motivation, lack of entrepreneurial experience and practice, entrepreneurial opportunity and entrepreneurial field, etc. At present, with the development and integration of multimedia computer technology and network communication technology, CAI teaching environment tends to multimedia networking, while resource database,The mainstream of platform and humanization software development makes CAI teaching software change from courseware to integrable ware.

In the research, teaching language skills should include explaining skills, etc. which also conflict with introducing skills, and should be eliminated; Teaching skills are not easy to evaluate, so it is suggested that they should not be used as research indicators [3]. Therefore, the above six indicators that do not meet the specifications are excluded: design skills, language skills, teaching evaluation skills, writing on the blackboard skills, contingency skills and speaking skills. Hypermedia is a kind of external associative memory, and technology helps it organize and acquire information. Hypermedia is the integration of computer and multimedia, which can produce interactive and nonlinear hyper-environment, and represents the interactive development direction of multimedia. Sometimes we directly understand hypermedia as interactive multimedia [4]. Virtual reality is a higher level of multimedia to interactive development, and it is the final development trend of multimedia technology. That as long as the campus network can be used as the basis to apply various multimedia teaching facilities and information systems, the teaching effect of various subjects can be improved [5]. However, in fact, because the campus network environment is extremely complex, there are high requirements in operation, maintenance and management. Once the multimedia network management is neglected, the stability and security of the campus network will be difficult to guarantee, and the application of various multimedia teaching facilities and information systems in education and teaching will inevitably be directly affected. Modi put forward the microteaching training mode and the "psychological-behavioral" mode of teaching skills training, which were advanced training modes at that time, provided theoretical basis for the training of teaching skills, and could be used for reference in the training of physical education teaching skills [6]. Zhi et al., put forward the concept of intelligent hypermedia teaching system. The so-called intelligent hypermedia is an intelligent information processing technology formed by combining artificial intelligence technology with hypermedia's information organization and management. In the intelligent hypermedia teaching system, ICAI module can use the friendly interface provided by hypermedia to stimulate students' learning interest and motivation, and at the same time, it can also use hypermedia to provide students with illustrated information [7]. Xia School W B requested to study. Such passive learning is not conducive to students' development. The network teaching platform is a modern teaching means and an important carrier in the process of physical education classroom teaching. It can not only fully reflect students' dominant position in the physical education classroom, but also greatly improve students' interest in physical education and exercise their strong physique [8].Wang

proposed targeted solutions. For the problem of data loss, we can set up a special backup server, and at the same time, take the backup server as the center to back up all application systems and information uploaded to the server platform in a centralized way, so as to ensure that all kinds of important data can be quickly recovered after being lost [9].

3 Multimedia network research

3.1 Multimedia Network System and Teaching Research and Analysis

Although the emergence and application of multimedia in teaching is not long, due to its powerful functions, the vast number of users have developed and applied it rapidly, which has led to the emergence of various teaching modes based on multimedia network. Text, graphics, images, animations, sounds, moving images, etc. constitute all kinds of information media. Multimedia technology is a technology that can capture, process, edit, store and play more than two different information media at the same time. It is the digitization technology and interactive processing ability of computers that make the realization of multimedia technology possible. Therefore, the computer-centered integration of voice, image processing technology and audio-visual technology can realize the computer-to-digital conversion of audio and video signals and the process of video compression and decompression. It is the inevitable result of the development of interactive multimedia network teaching. Generally speaking, multimedia is only the combination of various media, which is the linear combination and display of various visual and auditory components, and its interactivity is poor, so it is difficult to meet the needs of complex teaching interaction in the teaching process [10-11]. With the deepening of multimedia network teaching, it is inevitable that multimedia will develop in an interactive and nonlinear direction, and its direct initial result is the emergence of hypermedia and virtual reality technology. On the one hand, the application of multimedia network technology in school education has provided great help for education and teaching, on the other hand, it has also brought the campus network security problem that can not be ignored. The campus environment must be open and not too strict in management. All kinds of network viruses are beginning to spread widely. Although in most cases, the internal network can effectively prevent network viruses, the application of multimedia and network technology in schools needs to be based on relevant information systems or multimedia teaching software, and these information systems and software often have loopholes. In the research, the corresponding model diagrams are established to analyze and study them, as shown in Figure 1 and Figure 2.

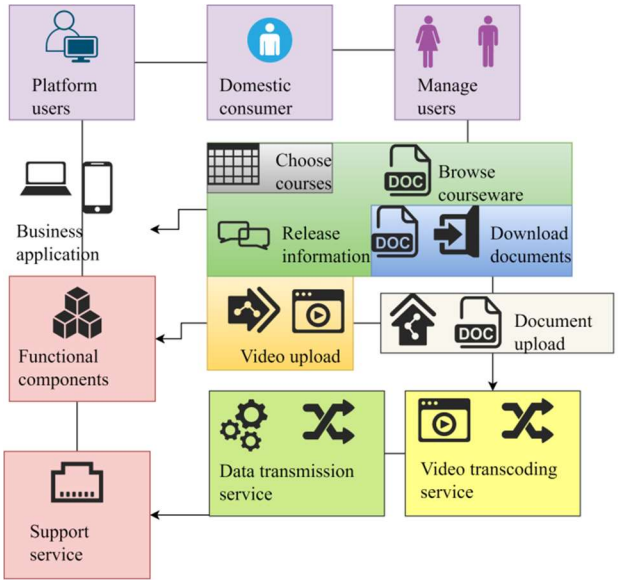

Figure 1 System model diagram

Source: adapted from Li (2021)

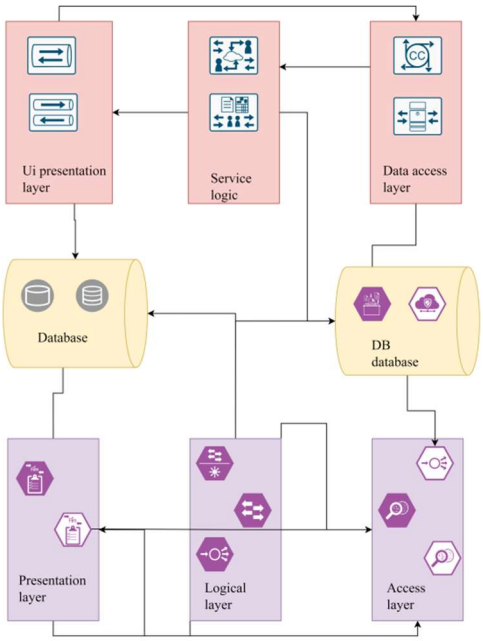

Figure 2 Model diagram of three-layer framework platform

Source: adapted from Li (2021)

In the era of big data, the value of all kinds of network information resources has become higher and higher, and they have been widely used in school education and teaching. Especially after the application of multimedia technology in teaching, all kinds of network resources have become important materials for multimedia teaching design, and the overall teaching level of schools has been significantly improved. In school education and teaching, if we want to do a good job in multimedia network management and realize the effective application of multimedia and network technology, we must first actively carry out network security publicity and education for school administrators, so that they can fully realize the necessity of multimedia network management, make clear the relationship between multimedia network management and educational informatization construction, stable operation of campus network, implementation of multimedia teaching, etc. and then gradually change the traditional application concept of multimedia and network technology, and increase the emphasis on multimedia network management and campus network security prevention [12-13] In the research, the corresponding data tables are established to study and analyze them, such as Table 1 and Table 2.

Table 1 Table format APA

Cause	Name	Weight
F1	Study	0.53
F2	Analyse	0.42
F3	Medium	0.74

Table 2 Comparative study between the physical education platform based on multimedia network and the traditional physical education platform.

Training time	Corresponding time of experimental group	Corresponding time of control group
	Students Group 1	Students Group 2
7-9	26.9	56.3
9-11	21.8	132.4
11-13	22.9	53.2
13-15	21.1	126.4

The so-called multimedia technology, simply speaking, is the systematic technology that the computer comprehensively processes various media information such as words, sounds and images in real time. It takes the computer as the center, integrates voice, image processing technology and audio-visual technology, and realizes the storage, transmission, processing, transformation and retrieval of different media information by computer through the processes of analog-to-digital conversion, data compression and decompression of audio and video signals. Multimedia classroom, micro-classrooms, virtual classrooms, simulation labs, online labs, virtual labs, and even open, wide-area or local online schools and virtual schools across regions, graphics, cultures, disciplines, etc. all their information is open.

3.2 Research on multimedia network algorithm

With the rapid increase of networked social media, the rapid expansion of multimedia data, and the increasingly rich interactive information between people. Similarity computing plays an important role in many fields. It is an important research content in computational linguistics, and has been widely used in information retrieval, text classification, information extraction and machine translation.At present, there are mature and effective theories and methods in the research of similarity in the fields of sentence, semantic similarity and text classification. In the whole graph network, the meeting probability of randomly walking from node A to node B is calculated, which is the similarity of the pair of nodes (a, b), while the latter adopts the symmetric walk method.Calculate the probability that nodes A and B will meet at random when they start at the same time. However, these calculation methods are only applicable to information networks with single data, and do not take into account the problem that the importance of the associated information between different types of nodes in multimedia information networks is different. The attribute information is converted into node correlation information for calculation, which effectively improves the accuracy of node similarity [14-15]. Generally speaking, in multimedia information network, traditional calculation of video file similarity. The throughput of a network is its effective bit rate or bandwidth, or the throughput is the bit rate of the physical link of the network minus the internal overhead brought by various transmission technologies. In the network of packet block transmission, the data stream of streaming media will be divided into discrete data blocks, and each block will be transmitted one by one in sequence. If the network can transmit all these data blocks in the same execution time, then each data block can reach the destination after the same delay. In the research, the corresponding algorithm formulas are established to analyze and understand them, such as formulas (1) and (2) and (3) and (4) plus (5).

$$sim(u,v)=1, ifuc=vc \tag{1}$$

$$P_{E_i}^{K}=\begin{cases}\dfrac{\left[{}^{\tau}E_i\right]^{\alpha}\left[{}^{\eta}E_i\right]^{\beta}}{\sum_{E\in R}\left[{}^{\tau}E_i\right]^{\alpha}\left[{}^{\eta}E_i\right]^{\beta}} \\ 0\end{cases} \tag{2}$$

According to the principle of high pheromone trace concentration and high probability on the path, the path is selected in the path set according to the probability as shown in formula (2).

$$\gamma_{\mathrm{ec(a,c)}}\overline{vwa_c^x}\bullet\gamma\theta(a,c)\bullet\sin(u,v) \tag{3}$$

$$S_{\mathrm{v+1}}(u,c)=C\bullet\sum_{v\notin r}\sum_{xc}\gamma_{\ell} \tag{4}$$

$$S_0(\mathrm{u},v)=\begin{cases}1\ ifu\neq v\\ 2ufu\equiv v\end{cases} \tag{5}$$

In the formula, $sim(u,v)$ represents the concept of nodes meeting at a certain node. From node u to its associated node v, the probability of this step is recorded as $\gamma_{\mathrm{ec(a,c)}}\overline{vwa_c^x}$. Then calculate the weight proportion $\gamma\theta(a,c)$ of $\sum_{v\notin r}\sum_{xc}\gamma_{\ell}$ in all the associated edges of $S_0(\mathrm{u},v)$. That is, the total probability of node $ifu\neq v$ is $ufu\equiv v$. The same is true for node $S_{\mathrm{v+1}}(u,c)$. Therefore, starting from nodes u and v, the total probability of going to the first step.Streaming media technology aims at the real-time transmission of multimedia data, and the huge amount of multimedia data determines its transmission.For a long time. In this process, the status of the Internet will change at any time, which will cause the quality of the stream received by users to drop or cut off. Because network-based control involves every node and element that makes up the network, from network links and protocols to routers, switches, servers and so on. So many devices are required to have functions, which can't be realized in a short time. Traditional calculation methods are mainly divided into two categories: the method based on node attributes and the method based on the correlation information between nodes. The former has cosine similarity coefficient, which mainly calculates the similarity according to the extracted node attribute information. The video attributes (types, styles, etc.) are converted into the corresponding node types, and then associated with the video nodes. Because different node types have different influences on the video similarity calculation results, the subsequent results are also different. In the research, the corresponding algorithm formulas are established to analyze it, such as formulas (6) and (7) and (8) and (9) plus (10).

$$sim(u,v)=0,ifaaI(v)=\Phi \tag{6}$$

$$\mathrm{SIM(u,v)}=\gamma_{\varphi(j,v)}\bullet sim(i,j) \tag{7}$$

$$\varpi\overline{\vartheta_i^u}=\frac{\omega i,u}{\sum_{\forall a\in I(u)}\omega_{a,u}} \tag{8}$$

$$\sum_{\forall \mathrm{i}\in I(u)}\gamma_{\phi(i,u)}\bullet\overline{\omega_{\frac{u}{i}}}=1 \tag{9}$$

$$\forall \mathrm{u},v\in G,\lim_{k\to\infty}S_k(u,v)=sim(u,v) \tag{10}$$

In the formula, A represents the multimedia information network. Vertex B represents the file nodes in the graph model, directed edge $ifaaI(v)$ represents the correlation between node u and node v . $sim(u,v)$ refers to the weight on the edge of directed edge $\gamma_{\varphi(j,v)}$. $sim(i,j)$ represents the node type set, and has a mapping function: $\varpi\overline{\vartheta_i^u}$, for each $\frac{\omega i,u}{\sum_{\forall a\in I(u)}\omega_{a,u}}$, there is $\gamma_{\phi(i,u)}$. $\overline{\omega_{u_i}}$ representing the edge correlation type set, and there is a mapping function $\forall u,v\in G$. For each edge $\lim_{k\to\infty}S_k(u,v)$, there is $sim(u,v)$. When there are too many packets in the network or a part of the network, the performance of the network begins to decline. This situation is called congestion. The complex problem of control is distributed to each layer through hierarchical control, and the layers are independent of each other, and the lower layer provides transparent services to the upper layer. Secondly, there are parameter negotiation and information transmission among the layers, which can increase or decrease the control levels according to the needs. Finally, the coordination among the layers forms a complete distributed control model [16]. Rate control is to predict the current available bandwidth according to the running state of the network, and adjust the streaming media transmission rate according to the predicted value to match the available bandwidth. The main work is to predict bandwidth and adjust streaming media rate. Each layer is transmitted through a channel, and the receiving end determines the number of receivers according to the network conditions. At the same time, the sender of each layer also determines its own sending rate according to the network conditions.

4 Research on Physical Education Training Platform in Colleges and Universities

4.1 Research and Analysis of Physical Training in Colleges and Universities

The teaching application of traditional theoretical courses can refer to students' achievements, but due to the particularity of physical education, the teaching application of physical education courses must be carried out through investigation and research. Task-based teaching method highlights the dual teaching effects of practical teaching method and task-based teaching method, and integrates them, thus evolving into practical task-based teaching method. It is neither theoretical research nor empirical research that has the most say in the teaching aspects of task-based teaching method, but the students have the most say. Although the administrators of the school will also participate in the lectures, only the students are involved in the task-based teaching method. The information collected from the students' investigation and research is not only the most comprehensive information, but also the truest information. The object of education is the students, and the students' teaching experience determines the success or failure of the application of practical task teaching method in teaching [17]. Task-based teaching method is the organic integration of practical teaching and task-based teaching. It integrates the two methods, draws on each other's strong points, pays more attention to practice, training, operation and tasks, conforms to the curriculum characteristics and actual teaching needs of physical education in higher vocational colleges, and can skillfully distribute teaching contents to specific links to highlight

students' autonomy in physical education classes. The practical task teaching method in physical education in higher vocational colleges is a subversion of the traditional teaching form. It completely changes the traditional teacher's explanation, students' line-up and teacher's exercise, and students' imitation. Teachers leave students more time for independent study and cooperative inquiry, and take the task as the driving force to quickly master sports skills, improve learning efficiency and strengthen training effect. In the research, the corresponding data graphs are established to analyze them, as shown in Figure 3, Figure 4 and Figure 5.

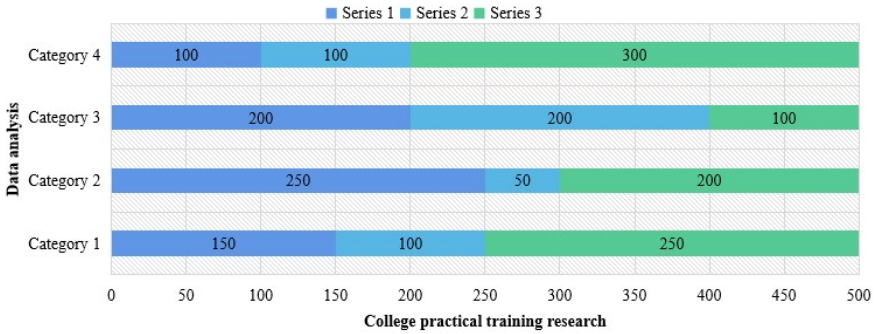

Figure 3 Analysis of practical training research in colleges and universities

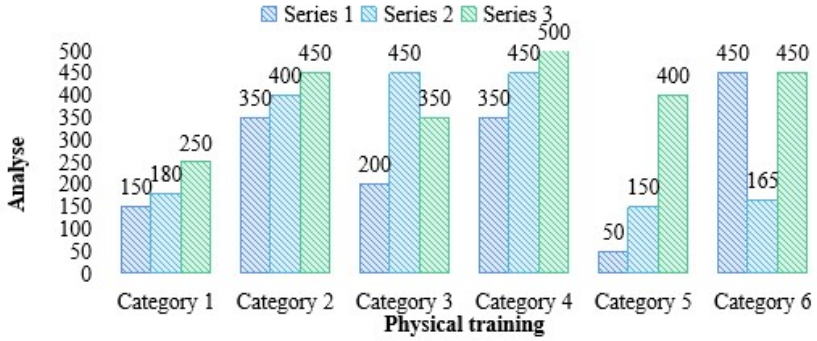

Figure 4 Data Map of Sports Training Research and Analysis

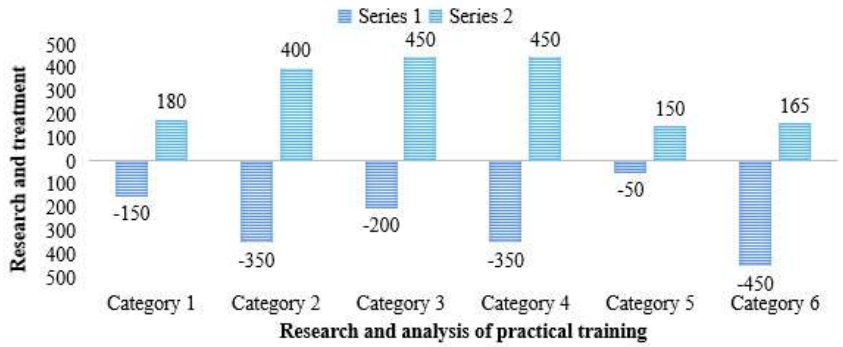

Figure 5 Data Map of Training Research Analysis and Processing

From the data graph, it can be seen that the data analysis and processing in college physical training research is about 43.63%. The research of contemporary cognitive psychology shows that the acquisition of any information can only be achieved through the subject's different levels of physiological and psychological transformation of the input information. First of all, we should accept the external signal, and transform the physical energy of the signal itself into the nerve impulse of the main sensory organ, and transmit it to the brain center, so as to have a perceptual effect on the external signal. First of all, we should be aware of the existence of the signal, feel the signal and log in. Secondly, it is necessary to decompose and confirm the transmission media, and understand the meaning of the information carried by the media according to the existing knowledge structure. In the teaching process of physical education in higher vocational colleges, because physical education itself has strong practicality, teachers should pay more attention to students' practical training process in physical exercise when applying practical task teaching methods, carry out physical education activities according to specific syllabus, school conditions, hardware facilities, students' actual physical foundation, learning ability and learning needs, and pay attention to every detail and process of students' physical activities, so as to improve students' health through continuous practical training. The construction of the training platform mainly includes four modules: professional technology, marketing planning, operation and management, and assessment [18-19]. In the design process of the platform, four modules are taken into account, providing shared space for groups with different professional directions and sports levels, mobilizing all resources compatible with the four modules of the school, and forming the integration and sharing of resources. In the complex campus network environment, facing all kinds of network security problems, schools also need to establish a perfect network security management system as soon as possible, provide clear guidance and norms for multimedia network management, and realize effective response to network security problems such as hacker attacks and network viruses. As far as the specific teaching situation of college teachers is concerned, teachers' knowledge is solidified, and at the same time, the knowledge in books tends to solidify, which leads to teachers' unchangeable teaching process, and it is difficult to innovate. However, through the Internet, teachers can learn all kinds of new knowledge, as well as the most cutting-

edge knowledge of their own courses. Therefore, when browsing or watching related videos, teachers should save or download them, and present the texts and videos to students through multimedia technology, so that students can have a deeper understanding of related courses and learn related knowledge, constantly improve their professional level and ability, and promote their further development.

4.2 Research and Analysis of College Physical Training Based on Multimedia Network

With the continuous development of modern information technology, multimedia technology has been popularized in primary and secondary schools, and now it has become a common teaching method. The application of multimedia technology can innovate the traditional classroom teaching, break the restrictions of books, blackboards and chalk, make the teaching contents appear in more colorful forms, and improve the learning effect of students. The application of task-based teaching method in physical education should start with the adjustment of teaching form, changing the traditional physical education teaching form of "students marching in line, teachers preaching" and "students visiting and teaching drills" into one in which teachers only introduce and preach the key skills for no more than five minutes, and the rest of the time is for students to watch high-level international and domestic videos and explore their own time. In the process of self-exploration, students can not only discover the secrets of movements and skills. In the practice task teaching mode, physical education teachers in higher vocational colleges should pay attention to the task as well as the practice process of students. Before carrying out physical education activities, teachers need to make clear the training tasks, formulate reasonable and appropriate training tasks for students, and encourage students to be more active in the process of physical education training. Moreover, when they finish the training tasks, they can fully experience the satisfaction of success and feel a certain sense of accomplishment. In the construction process of circular sports training platform of "competition-group-entrepreneurship", platform project, platform module and module objectives and tasks are the foundation of platform operation. Platform project determines the direction, platform module refines the objectives, and module objectives and tasks further differentiate the objectives. Collect, feedback and summarize information, supervise and optimize the training process. Through all-round monitoring of platform activities, we can find out all kinds of problems in the running process of the platform in time, discuss the most effective solutions in the regular meeting of the platform, and form a phased summary.And report the identification and assessment of training results [20]. College sports team coaches will no longer be limited to the improvement of the skills of sports teams, but also learn the relevant professional knowledge of teaching and management from the aspects of team building and team training, so that competitive groups can be liberated from the "first gold medal" and realize their own value through training on the platform. How to transform competitive sports effectively and efficiently. In the research, the corresponding data graphs are established to analyze and study them, as shown in Figure 6, Figure 7 and Figure 8.

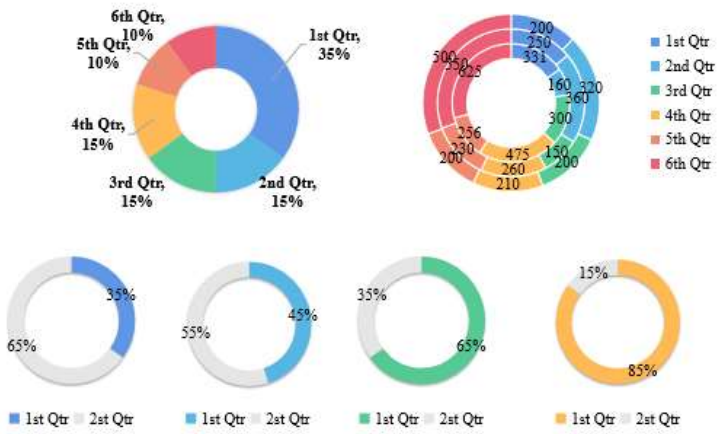

Figure 6 Multimedia network research college physical education analysis

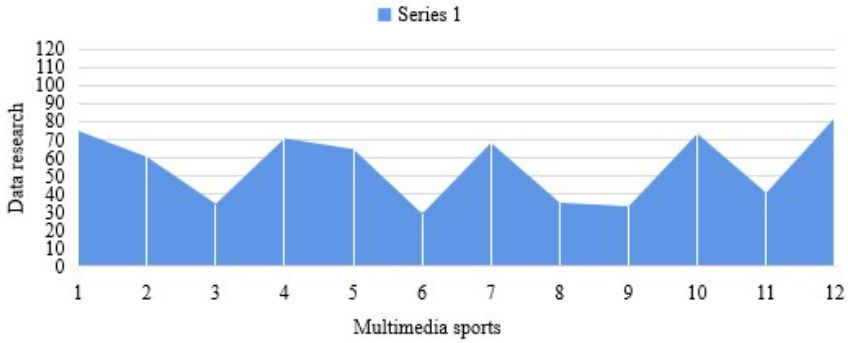

Figure 7 Research and analysis of multimedia sports data

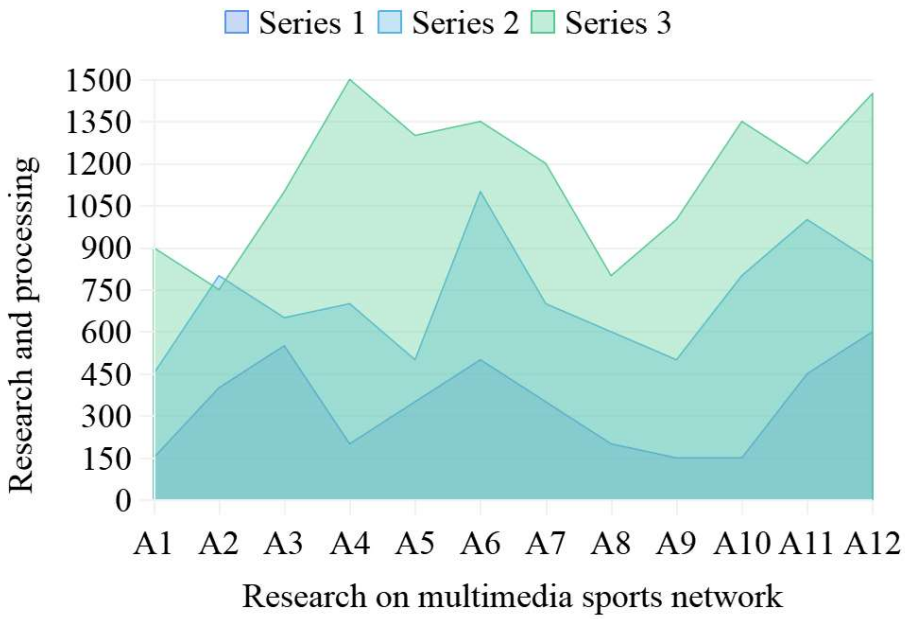

Figure 8 Research and Analysis of Multimedia Sports Data

From the data graph, it can be seen that physical training in colleges and universities has a correlation with multimedia network, and the influence is as high as 68.35%. In the process of P.E. classroom teaching in colleges and universities, students are the subjects who need to be taught knowledge, but also the subjects who need to develop actively. Every student is an independent individual, has his own potential to know the unknown, and is also a practitioner to satisfy his curiosity. Therefore, every P.E. teacher needs to fully understand the personality characteristics of each student. Moreover, not only in study, but also in life, he should know the students more comprehensively and comprehensively, so as to guide students' P.E. study pertinently. In college physical education classroom teaching, there are still many outstanding problems in the application of multimedia information technology. If we want to improve the quality of college physical education classroom and promote students' growth faster and better, we need to take some measures to solve these outstanding problems. Make efficient Internet information technology fully integrate with physical education teachers' classroom, and improve students' learning quality to the greatest extent. Physical education teachers in colleges and universities need to change themselves in the era of rapid development of the Internet. Understand the application of multimedia information technology deeply, master its development background skillfully, and improve the importance of multimedia in the classroom, so as to flexibly apply multimedia to show classroom teaching content and effectively improve students' awareness of physical education learning. As a college physical education teacher, we need to analyze the traditional teaching methods of physical education first, so as to get effective innovation and change. By making full use of the science and technology of online sports education and integrating sports theoretical knowledge and practical activities, students can present a more colorful physical education classroom. The traditional teaching mode is teacher-centered, which to a great extent imprisons

students' personality and limits their development space. As far as multimedia network teaching is concerned, the implementer of teaching is no longer the owner and imparting knowledge in traditional education, but a designer who can master all kinds of knowledge and media skillfully and tailor the learning system environment for learners. More physical education teachers in colleges and universities can play freely and create space for new classroom teaching methods. Teachers can also know what shortcomings they have in teaching, so as to make improvements in future teaching according to the suggestions put forward by students. Not only that, the physical education teaching mode in many colleges and universities has changed from the previous simplification to the present diversity and modernization, which also requires physical education teachers to keep pace with the times and not stay in the past, and to make higher demands on themselves according to the latest form, which is not only responsible for students but also for their own profession as teachers.

5 Conclusions

All in all, the physical education curriculum has made a new breakthrough under the development of the new curriculum reform. Making full use of Internet information, combining with the teaching curriculum to optimize the course development stage, and constantly enriching the teaching classroom, it also enables students to have a high interest in physical education, develop good sports habits, and thus have a strong physique. Although the traditional teaching mode is influenced by many factors such as teachers' knowledge level, teaching ability and students' responsiveness, its teaching effect is uneven, but it is an indisputable fact that this teaching mode has trained a large number of talents for the country. With the deepening of multimedia network teaching, the direct result of multimedia's interactive and non-linear development is the introduction of hypermedia and virtual reality technology. Based on cognitive science and thinking science, integrating artificial intelligence thoughts and technologies into CAI can make CAI more humanized and provide a heuristic learning environment for students to learn individually, which is the objective requirement of multimedia network teaching. In physical education teaching in higher vocational colleges, teachers' application of practical task teaching method not only conforms to the characteristics of physical education teaching, but also meets the needs of higher vocational students for students with physical skills. The implementation of practical training task teaching method in college physical education class has achieved good results.Results, both theoretical research and empirical analysis have proved this point. In the empirical analysis, we found a problem in the implementation of practical task-based teaching method, that is, some poor students have a tendency of centralization with backward results. Although the total average results show that practical task-based teaching has been significantly improved, the tendency of centralization with backward results of these poor students cannot be ignored. The network teaching resources developed based on multimedia technology in the classroom of colleges and universities have attracted much attention, and they are also valued by all sectors of society. This is not only in line with the development trend of the education industry, but also the inevitable outcome of the integration of education industry and information technology. Only in the process

of using these network resources, both teachers and students themselves must face up to the selection process, neither blindly using them nor being partial. They should constantly sum up experience in practice, and then improve the way of using network resources, so as to better carry out teaching and learning.

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