

Retraction

Retracted: On the Design of Assistant Teaching Using Network Multimedia Database in Volleyball Teaching

Security and Communication Networks

Received 17 October 2023; Accepted 17 October 2023; Published 18 October 2023

Copyright © 2023 Security and Communication Networks. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] J. Yin and Q. Song, "On the Design of Assistant Teaching Using Network Multimedia Database in Volleyball Teaching," *Security and Communication Networks*, vol. 2022, Article ID 8684007, 10 pages, 2022.

Research Article

On the Design of Assistant Teaching Using Network Multimedia Database in Volleyball Teaching

Juan Yin  and Qingyao Song

Jiangsu University, Zhenjiang, Jiangsu 212013, China

Correspondence should be addressed to Juan Yin; 1000004297@ujs.edu.cn

Received 1 July 2022; Accepted 20 August 2022; Published 9 September 2022

Academic Editor: Tao Cui

Copyright © 2022 Juan Yin and Qingyao Song. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Physical education is an important part of school's physical education and practical teaching activity. There are many restricting factors in physical education, such as the type of equipment and environmental conditions. The standardization of volleyball teaching technology has become the primary factor affecting teaching efficiency. Teachers demonstrate that the action is not standard and will lead students to learn that the technical action is not in place, and teachers can show students standardized technical action through multimedia technology, for example, through the video of athletes. The spatiotemporal nature presented in volleyball technology teaching affects students' understanding and mastering of technology, using network multimedia system-assisted volleyball training teaching, using the advantages of network multimedia, volleyball teaching students difficult to understand the technical action of the intuitive display, improve students' independent learning ability. This thesis studies the application of multimedia technology in the training and teaching of physical volleyball in colleges and universities. It analyzes the application of multimedia technology in the training and teaching of physical volleyball in colleges and universities, so as to provide useful references for the teaching reform of physical volleyball in colleges and universities.

1. Introduction

Multimedia has brought significant changes to the daily working life of human beings, and in order to meet the needs of educational modernization, the Ministry of Education promulgated the Outline of Basic Education Curriculum Reform, which proposes to vigorously promote the application of multimedia technology in teaching, to achieve changes in the presentation of teaching contents and teachers' teaching methods, and to play a rich nurturing environment. The teaching of physical education technology is then based on the expression of the teacher [1]. In order to achieve the goals taught at the beginning, teachers need to repeat the performance. The introduction of technology into physical education has a great role in enhancing sports volleyball practice and student learning [2].

Online multimedia skills teaching is a common method of teaching nowadays, which can reduce teachers' class time and make more of what they want to express presented in music

and sound. Some PPTs can be downloaded directly, but not all of them are ready. The professor's arrangement should be appropriate to the content taught [3]. The use of multimedia technology in volleyball is only taught to give students time to follow the intense and exciting international games, to learn the starting methods and tactics of different opponents through those examples and data so that students understand some regulations of volleyball and understand the necessary skills. In volleyball competitions, teachers can use multimedia technology to break down each step of the action. The use shows the advantages of technology in volleyball practice, which plays a good role in the proliferation of volleyball training. It is mainly reflected in the necessity of adapting to the progress of generations, spreading and increasing the amount of information for students.

Multimedia technology is slowly utilized through the teaching of knowledge, teaching of techniques and tactics, and other content. The knowledge of volleyball is taught very little, and the previous way of teaching is taught only by the

teacher, which does not allow students to develop an interest in volleyball [4]. Combined with multimedia teaching play courseware, screen conversion sound is conducive to students' interest in learning, to achieve a good teaching effect. In the teaching of volleyball theory, the knowledge, that is, difficult to explain in words can be presented visually through multimedia, for example, when explaining volleyball court, the volleyball court can be made into a multi effect picture file and displayed through multimedia, and each area of the court picture can be filled with different colors for audio and video description. The regularity of teacher performance is tied to the effectiveness of student learning. Teachers often show irregular movements to motivate students to learn. If technical activities are not available, teachers can use multimedia technology to present standardized technical activities for students. For example, the teacher can show video instructions of the operation, which can ensure the quality of teaching. The application of multimedia technology in volleyball teaching solves the previous drawbacks [5].

It is also extremely important to establish volleyball standards. A good volleyball standard is not only better for learning the sport but also useful for improving skills and is also the least harmful to your body.

In volleyball, there is a round-robin system, and the number of rounds and games in a round-robin match is calculated as one round after each team has participated in a match. When the number of teams participating in a match is odd, the number of rounds is equal to the number of teams. If 7 teams participate in the game, the number of rounds is 7: if the number of teams participating in the game is even, the number of rounds is equal to the number of teams minus 1. If 8 teams participate in the game, the number of rounds is $8-1=7$ (rounds). The number of games in a single-round tournament can be calculated as follows:

$$N = m * \frac{(m-1)}{2}, \quad (1)$$

where N is the number of games and m is the number of teams.

In terms of the single-round robin system and the method of determining the ranking, each team will get 2 points for a win and 1 point for a loss, and the forfeit will cancel all the results of the competition. If two or more teams have equal points, the ranking will be decided by equation:

$$A/B = C(\text{value}). \quad (2)$$

The team with the highest C value will be ranked first. A : the total number of winning games, B : the total number of losing games.

If the C values are equal, the ranking is determined by equation:

$$X/Y = Z(\text{value}), \quad (3)$$

where X is the total number of points scored and Y is the total number of points lost.

If the Z -values of two teams are still equal, the ranking should be decided according to the victory or defeat between them. If three or more teams have equal Z -values, the ranking shall be determined by the number of net wins between them, as in equation:

$$D - E = F(\text{value}), \quad (4)$$

where D is the total number of winning games and E is the total number of losing games.

When it comes to the game, we have to talk about several forms of lineups, as shown in Figure 1.

Advantages: the front row can always keep a second passer and two attackers in each round, which makes it easy to organize the middle one and two and side one and two attacks, and the tactics are stable.

Disadvantage: the front row has relatively few attacking points and poor concealment.

Pros: it strengthens the attacking power of blocking and front row so that the whole team only needs to adapt to one-second passer, which is conducive to cooperation and unified command, and makes the tactics rich in changes [6].

Disadvantage: when the second passer takes the front row's turn, there are three rounds with only two attackers in the front row, and the attacking point is too exposed, which affects the attacking power of the front row.

In terms of the three-three equipment, as shown in Figure 2.

In each round, there are 1 or 2 attackers and the second passer, but the attack is not enough.

Multimedia computing is an advanced technology that has emerged in recent years. Volleyball has only two main parts: the basic techniques of passing, passing, pointing, serving, and blocking, and the various tactical attacks under the guise of fastball [7]. In a computer, textual explanations, video displays and animations, and even musical explanations and demonstrations of classical movements are needed to clearly depict the process, store these on the computer for use, and make them readily available for consultation and printing. Secondly, the scientific description, analysis, and management of the sport of volleyball, using its pedagogical tools to effectively improve the effectiveness and level of volleyball teaching [8].

2. State of the Art

First, the current situation of high school volleyball development in Changchun city is taken as the research object.

Teachers are the foundation of education, and the content and tasks of teaching must be accomplished with the help of teachers. The results in Figure 1 show that there is a general lack of professional volleyball teachers in elementary schools, resulting in a serious lack of high-level professional volleyball teachers in many developing schools. The development of the sport of volleyball is greatly limited. Of the 168 physical education teachers in the 21 schools surveyed, 16 (9.5%) were professional volleyball teachers and 152 (90.5%) were other professional teachers; 53 (31.5%) participated in volleyball practice (Figure 3); and 115 (68.5%)

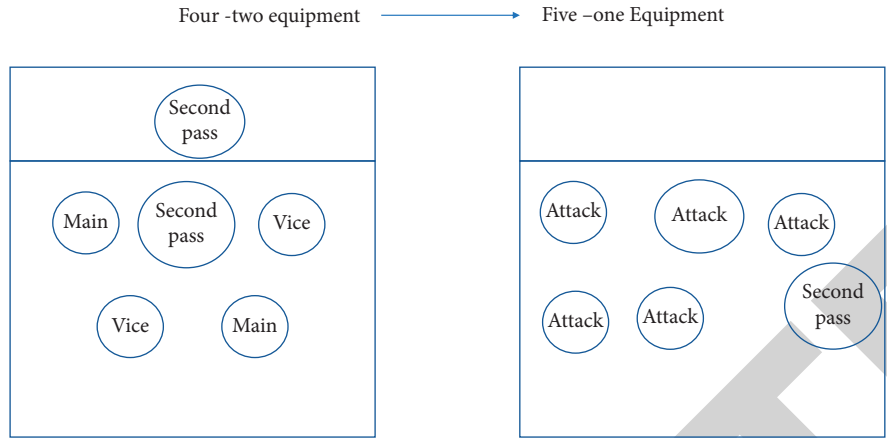


FIGURE 1: Four-two equipment and five-one equipment.

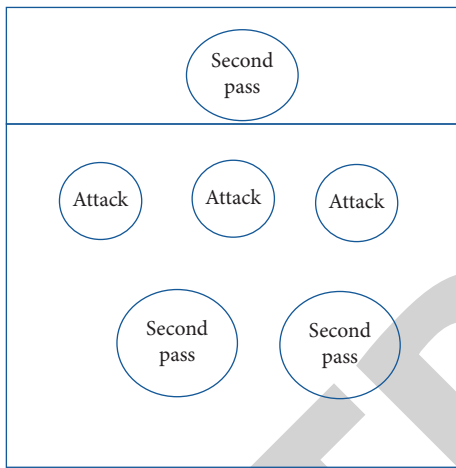


FIGURE 2: Three-three equipment.

did not participate in training, which shows that volleyball teachers in Changchun middle schools are truly professionally trained. Most were independent or ad hoc formations, usually with a low level of activity. Under such circumstances, it is difficult to guarantee the quality of teaching and training, especially for students, who love volleyball and want to further improve their skills and tactics at a certain technical level, which teachers nowadays often cannot do. So all the work meets their needs, thus reducing students' motivation to learn [9].

As can be seen from the survey results, as shown in Figure 4, as far as the actual situation of each school is concerned, very few schools are able to conduct volleyball classes, and even if they do, the teaching is very incomplete and has a very lightweight in physical education [10].

Volleyball techniques are divided into preparatory posture and movement, serving, matting, passing, dunking, blocking, and other techniques; the teaching process of the entire buckle is as follows Figure 5 it can be seen that all volleyball schools have passing, matting, and serving as the main teaching content, in order to help students improve their physical quality.

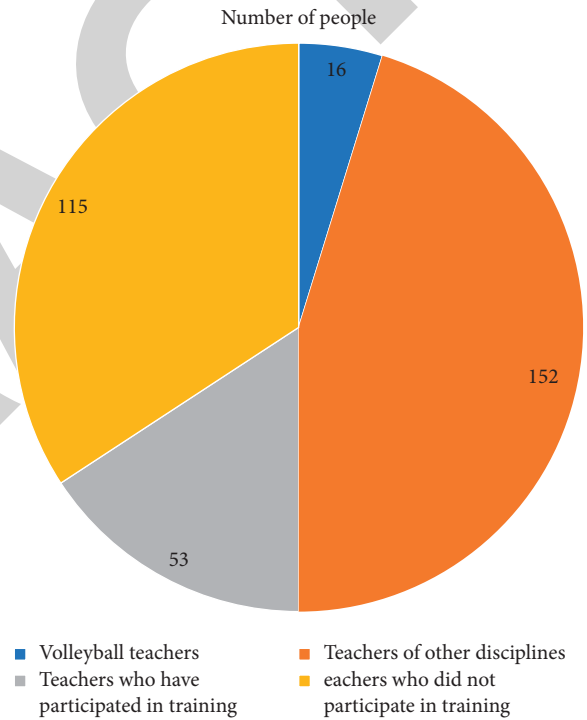


FIGURE 3: 21 high school sports teachers in Changchun city.

After-school volleyball activities include various student-initiated volleyball activities and various volleyball activities organized with the participation of the school (as shown in Figure 6).

Among the 21 high schools surveyed, 12 schools (57.1%) participated in municipal competitions, 5 schools (23.8%) participated in provincial competitions, and only 1 school (4.8%) participated in national competitions, see Figure 7. It is clear that from an external competitive standpoint, Evergreen High School volleyball is not nearly enough. Competition is an important factor in promoting sports, and tournaments greatly foster student interest. We hope that the authorities in Changchun will pay great attention to it. As more and more games are played, and

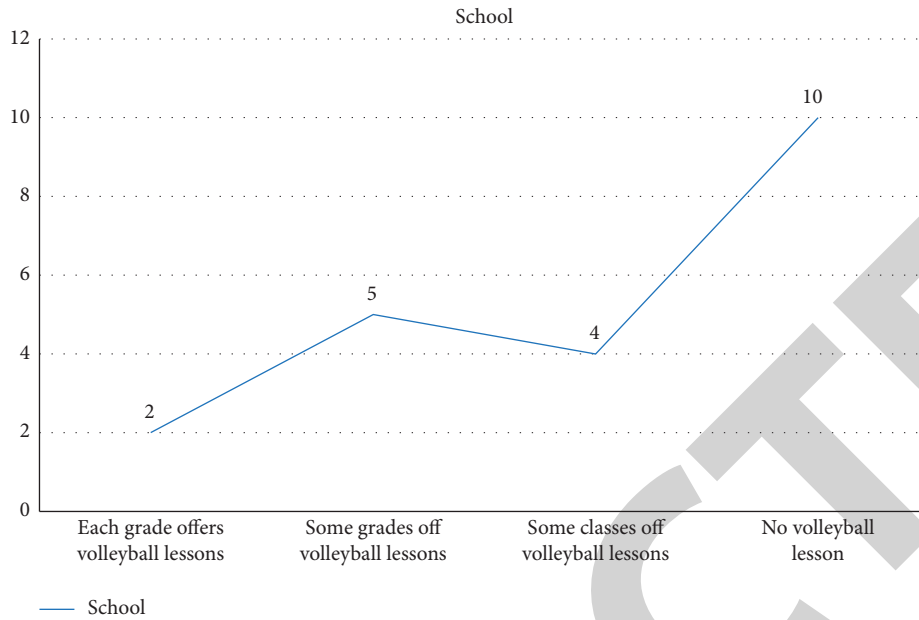


FIGURE 4: Changchun high school opened the basic situation of volleyball lessons.

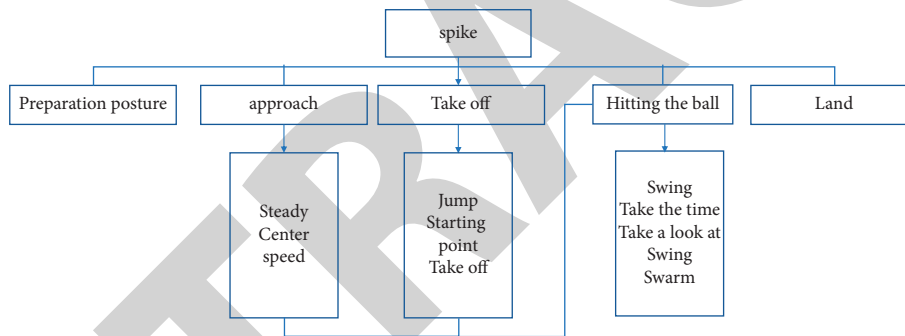


FIGURE 5: Basic factor relationship diagram of the technical action structure.

more and more people pay attention, then the focus of the school will be skewed and volleyball will be taken seriously.

The attitude of school leaders toward volleyball and the organization of volleyball tournaments by the competent authorities were analyzed in a graph (Figure 8). Tournaments develop a sense of honor in children, and more tournaments will result in more honor, which is necessary to increase interest in volleyball.

In terms of equipment, 57.2% of schools have less than 10 volleyballs, 19.0% have between 10 and 20 volleyballs, and only 9.5% have more than 40 volleyballs; we found in some schools that the volleyballs used by students are broken and have lost their skins, and there are few intact volleyballs left. It is clear that most of the volleyball equipment at Evergreen High School does not meet the teaching needs. With the significant growth of volleyball in schools, the demand for volleyball equipment will increase. The difficulty of meeting the needs of ordinary schools for activities other than physical education has severely hindered the development of volleyball courts for students. The development of school volleyball greatly limits students' interest in the sport as shown in Table 1.

Volleyball for beginners must have a learning and adaptation process, especially the learning and comprehensive application of several basic techniques of serving, passing, pad, buckling, and blocking. Table 2 shows that the mastery of the basic technique of snapping the ball is not as good as it should be, let alone proficient in playing volleyball.

It plays an important function of orientation, initiation, regulation, reinforcement, and maintenance of physical learning and physical exercise behavior, and has an important influence on the effect of physical activity. For this reason, after conducting a survey, the results are shown in Table 3 (with multiple motivations).

Through the survey of physical education teachers in Changchun High School, leaders attach importance to the degree of attention, teachers, influential competitions, teachers' training opportunities, venue equipment, etc., are the main factors of the high school in Changchun High School at this stage. The questionnaire survey found that the main factors affecting high school students to perform volleyball exercises are activity time, venue equipment, technical guidance, etc. (see Table 4 (more than one)).

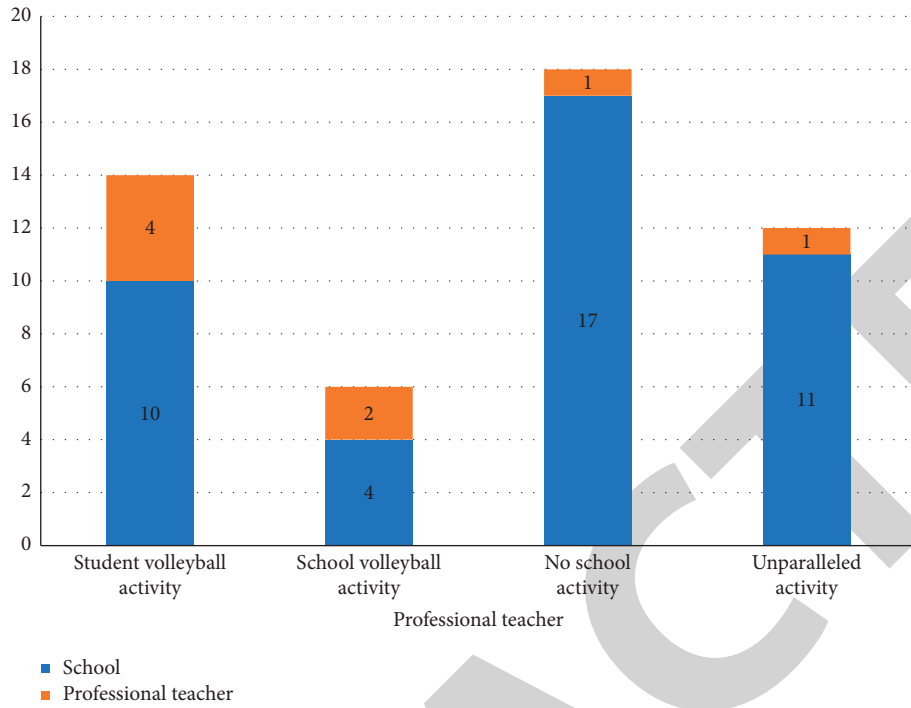


FIGURE 6: Volleyball activity survey.

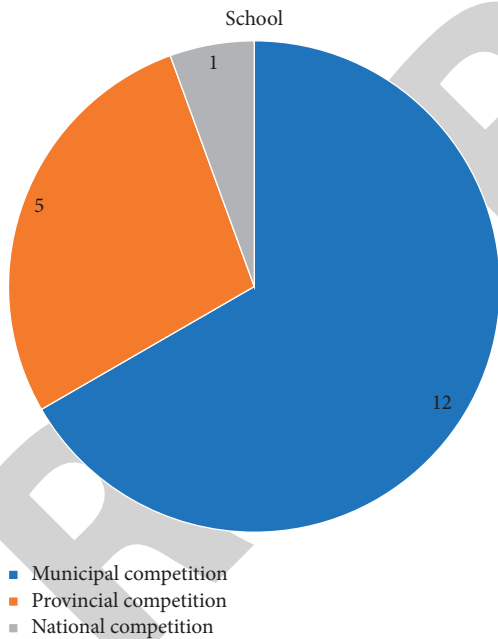


FIGURE 7: School participation in off-campus competitions.

- (1) Multimedia technology can strengthen students' volleyball fundamentals. Due to the high academic pressure of high school students, most of them do not pay much attention to sports, which also weakens their physical fitness and motor coordination. It is difficult to adapt to large, high-intensity exercise programs [11]. Therefore, in high school volleyball training, teachers should take a step-by-step approach according to the actual situation of

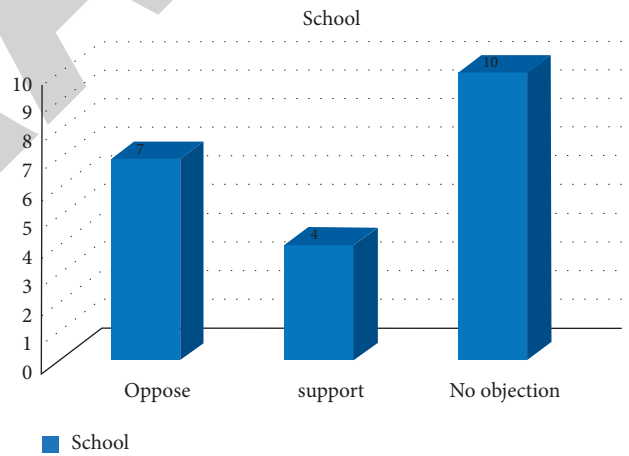


FIGURE 8: Survey of volleyball attitudes of schools in the competent department.

the students by first explaining the theoretical knowledge of volleyball to the students and then training them in the corresponding motor skills. This provides more opportunities for students to update and adapt while saving training time. When teaching theoretical knowledge, teachers can appropriately use multimedia technology to make abstract theoretical knowledge more visual and concrete to help students better understand and master the theoretical knowledge [12]. For example, when teaching front-end theoretical information, teachers can use multimedia equipment to enhance teaching. The purpose of this lesson is to let students understand and master the position of the point of

TABLE 1: Existing volleyball courts and number of volleyballs in 21 high schools in Changchun.

School (s)	Site (pcs)	Proportion (%)	School (s)	Volleyball (pcs)	Proportion (%)
11	0	52.4	12	Less than 10	57.2
5	1	23.8	4	10–20	19.0
2	2	9.5	2	20–30	9.5
2	3	9.5	1	30–40	4.8
1	More than 3	4.8	2	More than 40	9.5

TABLE 2: Students' mastery of volleyball techniques.

Content	Male (pcs)	Percentage (%)	Female (pcs)	Percentage (%)
Roughly mastered the passing and cushioning technique	132	54.3	103	45.4
Proficient in passing and cushioning technique	38	15.6	28	12.3
Roughly mastered the snapping technique	27	11.1	13	5.7
Proficient in snapping technique	18	7.4	6	2.6
More proficient in using various techniques for the game	47	19.3	36	15.9

TABLE 3: Survey on students' motivation to participate in volleyball activities (there is more than one motive).

Content	Indicator 1 (male)	Percentage (%)	Indicator 2 (female)	Percentage (%)
Promote physical health	221	90.9	177	78.0
Improve physical function	152	62.6	112	49.3
Get in good shape	113	46.5	107	47.1
Recreation	103	42.4	96	42.3
Regulate emotions	112	46.1	89	39.2
Enrich life	121	49.8	89	39.2
Improving sports skills	140	57.6	84	37.0

TABLE 4: The main factor affecting high school students for volleyball exercise (more than one).

Survey content	Teacher	Percentage (%)	Survey content	Students	Percentage (%)
Leader attaches great importance	118	70.2	No time	352	74.9
Faculty	113	67.3	No venue equipment and facilities	258	54.9
Influential competition	96	57.1	No technical guidance	205	43.6
Teacher training	84	50.0	No activity habits	142	30.2
Venue	68	40.5	No sports atmosphere	138	29.4
Examination system	56	33.3	No exercise partner	132	28.1
School funds are tight	28	16.7	Inertia	89	18.9

impact correctly. Therefore, during the teaching process, the teacher can use multimedia equipment to show the students a picture of a ball on the leg and let them observe the picture carefully and pay attention to the position of the pillow. The teacher then explains in detail how to hit the ball with the arm and teaches students the skill of catching the ball when it bounces and lands in the correct position. Once students have learned this part of the theory, the teacher can explain where to strike the ball. Students can only master the correct form of the punch to ensure the efficiency of the punch and avoid injuries during practice. After the above-mentioned theory learning, students basically mastered the theory on the mat. Teachers can take advantage of this situation and play cartoon videos to students through multimedia equipment to guide them to follow the whole forging process so that students can deepen the theoretical knowledge they have learned in practice and their understanding of

the theoretical knowledge. At the same time, it can give students the opportunity to better understand the beauty of volleyball, thus stimulating their interest in playing volleyball.

- (2) An important part of volleyball is the use of multimedia equipment to improve students' volleyball tactics. Therefore, when teaching high school volleyball drills, teachers should enhance the practice of volleyball tactics for their students. By using multimedia technology in teaching volleyball tactics, you can watch and learn tactics through video materials related to volleyball games, making tactics clearer and more intuitive [13]. At the same time, teachers can also use the demonstration function of multimedia equipment to introduce volleyball tactics and coordination to help students master volleyball tactics and improve their volleyball skills. For example, when teaching the tactics of one and two attacks, students do not have practical experience, so if they only use theory, such

tactics will not appear in their minds, so the teaching effect is very good but unable to connect. To address this phenomenon, teachers can use multimedia teaching equipment to help students understand and master this tactical method more intuitively. Schools that qualify can allow school volleyball teams to demonstrate tactics and shoot videos. In schools that do not, teachers can collect tactical videos online and turn them into educational materials. In the classroom, teachers can use multimedia devices to introduce the game to students while explaining the game to them, such as player positions and attack route variations. The main feature is that the teacher can use the media device to perform functions such as pause, replay, and rewind to allow students to better observe and learn strategies and improve their understanding and mastery of strategies [14].

- (3) Innovative techniques and tactics with the help of multimedia equipment volleyball is a sport with dynamic continuity, and the techniques and tactics in volleyball are not set in stone. Due to the different playing levels of teammates and the attacking methods and tactics of opponents during the game, volleyball players need to improvise, update and innovate their techniques and tactics in time so as to enhance the possibility of winning. Although volleyball training in high school is not comparable to professional volleyball training, and the physical quality and coping ability of high school students are not comparable to those of professional volleyball players, the innovative teaching of volleyball techniques and tactics in high school sports volleyball is very beneficial to the improvement of students' physical quality and the development of their innovative ability. Therefore, in high school sports volleyball training teaching, teachers should encourage students to participate more in volleyball tactics training and to innovate tactical strategies by means of free combinations and splicing of volleyball movements. In order to enhance students' experience of different tactics, teachers can use multimedia equipment to play videos of volleyball games for students. For example, teachers can show students the games of China against the Netherlands, Italy, Serbia, and other countries in the 2018 Women's Volleyball World Championships, and guide students to analyze the success and failure of the tactics adopted by China's women's volleyball team against different countries, and find out the strengths and weaknesses of the tactics adopted. The teacher then encourages the students to use the theoretical knowledge they have learned to jointly simulate and develop a set of tactics to counteract them and start training. Through this combination of theory and practice, students will be able to improve their knowledge of volleyball.

3. Methodology

3.1. Establishing Volleyball Movement Standards

- (1) Collecting information: find relevant books, magazines, and materials, and summarize and organize the basic movements of volleyball [15].
- (2) Expert opinion: the collected data were analyzed and studied by sports experts to determine the movement standards of volleyball techniques.
- (3) Image and photo maintenance: images were cut into video clip files and sorting of these files; graphic transformation operations such as rotation and translation were performed on the moving parts of the images to make the movements conform to the standards.

3.2. Preprocessing Work

- (1) Image processing: collect the classic game clips of excellent teams and athletes in the world tournament, and use them to show the action standards; collect the nonstandard action clips in volleyball teaching, and use them to demonstrate the action that needs to be corrected; and collect the pictures and scan them into a standard picture format [16].
- (2) Edit text: organize various action points of the standard, instructions, easy-to-make mistakes, and correction methods, make the text material more accurate and concise.
- (3) Animation production: design the character shape and design key frames according to the action picture. In terms of the amount of data in the image, the calculation is shown in equation:

$$\text{The} \cdot \text{data} \cdot \text{volume} \cdot \text{of} \cdot \text{image} = \text{image} \cdot \text{resolution} \cdot \text{image} \cdot \text{depth} \% 8. \quad (5)$$

- (4) Audio production: configure the music for the volleyball action to form an audio file.

3.3. Establish Multimedia Network Database. Before building the database, we need to analyze the data (media files and text files) requirements, create a conceptual model, and then convert it into a system data model. The process of establishing a database is shown in Figure 9.

We need to first clarify what we need through requirements analysis, then conceptual structure design, logical structure design, and physical structure design, to build out the basic architecture of our database, all done after the implementation of the database, and finally this operation and routine maintenance.

Establishment steps include the following:

- (1) Define the structure of the database: the volleyball event media database system needs to have basic and control data.

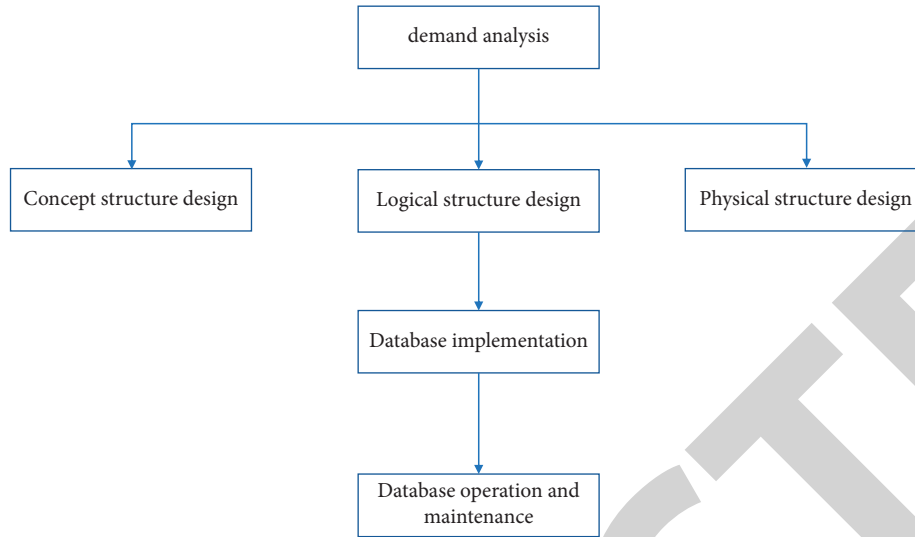


FIGURE 9: Establish six steps for databases.

- (2) Create a data dictionary: the technical indexes of volleyball by category, name, and order of various gymnastic movements unified code, stored in the data dictionary, and organized into the database according to the data table structure requirements [17].
- (3) Multimedia data entry [18]: the system has three innovations: first, it does not perform any user environment maintenance; second, in addition to the basic data (data describing the functions), control data are added to the database. The control data describe the main data structure and functional structure of the system, the control program operation, and the positioning control data. Information about fitness technology or system functionality can be easily added or removed from the system containing control information, resulting in a highly transparent and customizable system; third, media information is organized using links. This optimizes the organization of data, increases the flexibility of the system, and makes system queries more efficient.

For multimedia applications, the data transfer speed is as in equation:

$$V = \text{HZ} * \text{Bit} * n, \quad (6)$$

where V is the data transfer speed, HZ is the sampling frequency, bit is the number of quantization bits, and n is the number of channels.

The audio compression data ratio is solved as in equation:

$$B = \frac{m}{n}, \quad (7)$$

where B is the audio compression data ratio, m is the amount of compressed audio data, and n is the amount of audio data before compression.

Multimedia audio calculation formula as shown in equation:

$$\begin{aligned} \text{Data volume} &= \text{seconds (audio time)} * \text{number of channels} \\ & \quad (\text{mono for 1, dual channels for } (2) * \text{number of sampling} \\ & \quad \text{bits} * \text{sampling frequency} \\ & \quad (\text{HZ}) \% 8. \end{aligned} \quad (8)$$

3.4. *System Design*. The most important thing is to determine the programming model.

- (1) Programming approach: the system programming emphasizes three features: first, it adopts a top-down modular design approach, which is easy to maintain and expand the system; second, it uses object-oriented technology design, which is easy for users to understand and use; third, it uses data visualization techniques to design the program, which makes the data more independent and the system more flexible [19].
- (2) Computer languages used: the UI design uses ASP, multimedia data processing, and SQL Server 2000 database support, and the system works directly on the server, which can be used in multimedia classrooms and classrooms. The computer classroom is flexible to respond to the needs of teachers and students.

3.5. *System Functions*. User feedback: user feedback forms are provided to collect user data and FTP file servers for different upload services, and different data files can be sent to understand user feedback [20].

Data maintenance: mainly updates the media files. System maintenance is server maintenance. The user can use the system by simply opening the browser and no customer service is required.

Help: the system is designed with a standard Windows help function that provides system description and operation, as well as sample queries and navigation methods [21].

4. Result, Analysis, and Discussion

Volleyball technical training methods can be summarized as service technical training methods to improve accuracy, stability, aggressiveness, and combat efficiency as pad training methods techniques (individual training, collective cooperation in catching the ball, dunk training), training methods (general), passport, secondary education methods, and technical methods of dunking training (step dunking, techniques).

With its friendly interface, simple human-computer interaction, and rich database information, users can find the required training methods quickly by database query or classification query, which improves the efficiency of lesson preparation and indirectly improves the efficiency and quality of volleyball technical training [21].

Also, the use of this technique with our daily volleyball, or not only volleyball but also other sports, such as basketball, badminton, table tennis, rugby, soccer, tennis, and even running, contains great benefits for our daily learning of how to exercise, which is a great help. For example, in learning to run, we can use this technique to better learn the running posture and running breathing pattern, simulating the kind of breathing, the amplitude of the swing, and the starting posture. There is a better specification, which can not only help us to learn easily and increase certain efficiency but also reduce the pressure on our body due to incorrect posture, which can damage our body. We hope that with the development of technology, we can do better and better in this area, and let our learning style, or the way the teacher teaches tends to diversify, in favor of our growth and become more powerful.

5. Conclusion

The introduction of multimedia technology has had a positive impact on teaching and will have an impact on other teaching methods as well. The reasonable use of multimedia technology in high school sports volleyball training can make the training methods more intuitive and feasible, encourage students to better understand and master the skills and requirements of volleyball, and further improve their volleyball skills. Therefore, in high school volleyball training and teaching, teachers should make reasonable use of multimedia technology to support teaching according to the actual situation of students, increase the effect of education for volleyball coaches, and promote the development of volleyball teaching in high school in China.

Applying basic stability training to youth sports routines can be very helpful in many ways. It not only helps to improve athletic and technical performance but also reduces unnecessary energy expenditure and sports injuries in training and sports competitions for young athletes. Therefore, coaches should actively train young athletic students in basic stability training, accumulate useful experience in basic stability training, and build a solid foundation for professional growth as young athletes through basic stability training.

In summary, we have great expectations for the future of our teaching methods, regardless of the previous teaching methods, our world is growing after all, whether it is

technology or something else, for teaching, teaching models, etc., are constantly improving, we hope that this technology can be used not only in this area but also to benefit other areas. We are looking forward to the future, maybe one day, we can use technology to realize the interaction of the unreal world, that is, we can not only play volleyball and learn volleyball on the court, but also learn in the unreal world, so that there will be no more loss of body, and we can have unlimited strength to learn, and we can even use the time to sleep. Therefore, the use of network multimedia to build a database is a great aid to our teaching, but also a big step forward in our teaching breakthrough.

Data Availability

The labeled data set used to support the findings of this study is available from the corresponding author upon request.

Conflicts of Interest

The authors declare that there are no conflicts of interest.

Acknowledgments

This work was supported by Jiangsu University.

References

- [1] Y. Wang, "Exploring innovation of college volleyball teaching under the vision of new media," *Industry and Technology Forum*, vol. 21, no. 09, pp. 175-176, 2022.
- [2] H. Zhang, "The new idea of volleyball teaching in colleges and universities under the concept of Sunshine Sports," *Journal of European Economy*, vol. 2021, pp. 103-104, 2019.
- [3] Y. Zhang and W. Hu, "Cultivation of students' tactical awareness in high school volleyball teaching," *Sports Vision*, no. 22, pp. 38-39, 2021.
- [4] S. Chen, "Research on the application of multimedia technology in sports volleyball training," *Contemporary Sports Science and Technology*, vol. 10, no. 29, pp. 89-91, 2020.
- [5] L. Zhao, "The construction of volleyball course content in college under multimedia video practice teaching mode," *Liberal arts enthusiasts (education teaching)*, no. 04, pp. 10-12, 2020.
- [6] T. Wu and G. Chassang, "Chapter 6. French and Chinese regulatory approaches to end-of-life and euthanasia," *Journal international de bioéthique et d'éthique des sciences*, vol. 31, no. 1, pp. 63-83, 2020.
- [7] Li Mei, "The application of multimedia technology in college volleyball teaching," *Digital World*, no. 03, pp. 160-161, 2020.
- [8] Li Yan and J. Han, "The high school volleyball teaching, the cultivation and training of the two-handed hands," *Journal of European Economy*, vol. 2021, pp. 24-25, 2018.
- [9] N. Du, "Research on the construction of digital resources for volleyball network teaching," *Contemporary Sports Science and Technology*, vol. 9, no. 35, pp. 246-248, 2019.
- [10] B. Xu and L. Changqin, "Practical dimension and optimization strategy of improving the teaching quality of political theory courses in colleges and universities," *Region - Educational Research and Reviews*, vol. 3, no. 3, p. 21, 2021.
- [11] Z. Nagy and A. E. Müller, "A study on word association when teaching the theoretical rules of volleyball in physical education classes," *STADIUM - Hungarian Journal of Sport Sciences*, vol. 1, no. 1, 2018.

- [12] C. Duan, "Design of online volleyball remote teaching system based on AR technology," *Alexandria Engineering Journal*, vol. 60, no. 5, pp. 4299–4306, 2021.
- [13] P. Paraskevaïdis and E. Fokides, "Using 360° videos for teaching volleyball skills to primary school students," *Open Journal for Information Technology*, vol. 3, no. 1, pp. 21–38, 2020.
- [14] F. Sari, A. Kristiyanto, and T. A. Utomo, "Influence of teaching style and achievement motivation towards the results of learning services to volleyball," *Health, sport, rehabilitation*, vol. 6, no. 2, p. 56, 2020.
- [15] I. Kim and B. Ko, "Content knowledge, enacted pedagogical content knowledge, and student performance between teachers with different levels of content expertise," *Journal of Teaching in Physical Education*, vol. 39, no. 1, pp. 111–120, 2020.
- [16] S. Ahdan, "Perancangan learning media for basic techniques of volleyball using android-based augmented reality technology," *Inovasi Pembangunan : Jurnal Kelitbangan*, vol. 8, no. 03, p. 221, 2020.
- [17] H. Wu, A. D. Dwivedi, and G. Srivastava, "Security and privacy of patient information in medical systems based on blockchain technology," *ACM Transactions on Multimedia Computing, Communications, and Applications*, vol. 17, no. 2s, pp. 1–17, 2021.
- [18] F. Castro-Medina, L. Rodríguez-Mazahua, A. López-Chau, J. Cervantes, G. Alor-Hernández, and I. Machorro-Cano, "Application of dynamic fragmentation methods in multimedia databases: a review," *Entropy*, vol. 22, no. 12, p. 1352, 2020.
- [19] H. Choi, S. Lee, and D. Jeong, "Forensic recovery of SQL server database: practical approach," *IEEE Access*, vol. 9, pp. 14564–14575, 2021.
- [20] A. MacFarlane, S. Missaoui, and S. Frankowska-Takhari, "On machine learning and knowledge organization in multimedia information retrieval," *Knowledge Organization*, vol. 47, no. 1, pp. 45–55, 2020.
- [21] S. Kekkonen-Moneta and G. B. Moneta, "E-Learning in Hong Kong: comparing learning outcomes in online multimedia and lecture versions of an introductory computing course," *British Journal of Educational Technology*, vol. 33, no. 4, pp. 423–433, 2002.