

Retraction

Retracted: Multimedia Computer-Aided Industrial System Design Based on the Study of Big Data Mining Algorithm

Advances in Multimedia

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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.

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] Z. Zeng, "Multimedia Computer-Aided Industrial System Design Based on the Study of Big Data Mining Algorithm," *Advances in Multimedia*, vol. 2021, Article ID 8489662, 8 pages, 2021.

Research Article

Multimedia Computer-Aided Industrial System Design Based on the Study of Big Data Mining Algorithm

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Aiming at the problems of the multimedia computer-aided industrial system, this paper puts forward the application of big data mining algorithm to multimedia computer-aided industrial system design and analyzes in detail the impact of multimedia technology on industrial quality. This paper introduces the advantages of using big data mining algorithm in multimedia computer technology course, shows the operating environment to be met by using the multimedia computer-aided industrial system, follows the guiding principles of the overall design learning theory and artistic conception cognition theory, supplements specific industrial examples, and discusses multimedia industrial design.

1. Introduction

Multimedia technology fully integrates the computer system design mode and communication mode and combines the corresponding content of computer-aided industrial system with the form of the industrial mode. Especially in the current process of using multimedia software, multimedia technology has been fully used in various fields. The industrial innovation development environment based on Internet multimedia technology is also gradually taking shape [1–3]. On the premise of making full use of the practicability and operability of the industrial system, industrial researchers began to give professional guidance to the design, production, and application of computer multimedia industry. Computer multimedia-aided industrial design course takes computer as the industrial system media to help or replace staffs to perform industrial system activities [4–6].

Cai is not only the application field of computer but also a new way of design planning and industrial system. The salient features of this new industrial system approach are interactivity and individuality. Interaction refers to the frequent direct communication activities between students and computers, that is, the computer monitors students' learning through questions, and students timely understand

the results from the feedback provided by the computer and get encouragement and guidance. The so-called individuality means that students learn selectively according to their own characteristics and needs and make appropriate design for this purpose.

2. Big Data Mining Algorithm

The neural network algorithm describes the overall structure of the image starting from part of the information block and better represents the type of object information in the image [7–9]. First, the training set is randomly divided into w image blocks, the K -means cluster method is used to obtain multithreaded convolution filters, and the number of convolution filters is K . Among them, the size $u_c^2 \times 3$ of the convolution filter of the RGB thread and the depth coding thread is the original depth thread and gray-scale thread K . Taking the original depth thread u_c^2 as an example, the size of $u_t \times u_t$ can fold the convolution filter corresponding to the input image to obtain the output feature.

$$\varphi \in R^{K \times (u_t - u_c + 1)^2}. \quad (1)$$

In order to use the kernel function to perform inner product operations on $h(p)$ HT and HHT, respectively, to

obtain a function-based overlapping learning machine, it is no longer necessary to determine the number of hidden layer neurons m and the activation function $h(\cdot)$. The core matrix of ELM is

$$\Omega_{\text{ELM}} = \text{HH}^T: \Omega_{\text{ELM}_{i,j}} = h(p_i) \cdot h(p_j) = k(p_i, p_j). \quad (2)$$

According to formula (1) and the above formula, the output function of KELM is

$$s(p) = h(x) \cdot \beta = h(x)H^T \left(\frac{I}{C} + \text{HH}^T \right)^{-1} T = \begin{bmatrix} k(x, x_1) \\ k(x, x_2) \\ \vdots \\ k(x, x_n) \end{bmatrix}^T \left(\frac{I}{C} + \Omega \right)^{-1} T. \quad (3)$$

Here, I is the identity matrix and C is the regular term used to adjust the generalization ability of the learning machine.

Construct the network algorithm structure as shown in Figure 1. The structure can combine the characteristics of the two networks, feedback the output of the implicit layer to the structural layer, store the history of the implicit layer in the state, and adjust the influence of past signals on the current values of different input signals. The value of the output layer is fed back to the input layer, and the network is corrected according to the output value [10].

Equations (4)–(7), respectively, represent the relationship between the hidden layer, the correlation layer, the output layer, and the output feedback.

$$x(k) = f(W^{-1}x_c(k) + W^2u(k-1)), \quad (4)$$

$$x_c(k) = x(k-1), \quad (5)$$

$$y(k) = g(W^3x(k)), \quad (6)$$

$$u(k) = y(k), \quad m \leq k \leq r. \quad (7)$$

The Big Data Mining Algorithm is simple in structure, mature in algorithm, and has strong nonlinear mapping ability. Therefore, the retrieval is carried out in the direction of the fastest reduction of the error. If the learning factor is appropriate, the convergence efficiency is high.

Consider the following overall error objective function E :

$$E = \sum_{p=1}^N E_p. \quad (8)$$

Among them, $E_p = 1/2(Y_d(k) - Y(k))^T(Y_d(k) - Y(k))$. Hidden layer to associated layer:

$$\Delta w_{ij}^3 = \eta \delta_i^0 x_j(k). \quad (9)$$

Input layer to hidden layer:

$$\Delta w_{jq}^2 = \eta \delta_j^h u_q(k-1). \quad (10)$$

Associate layer to hidden layer:

$$\Delta w_{jl}^1 = \eta \sum_{i=1}^m (\delta_i^0 w_{ij}^3) \frac{\partial x_j(k)}{\partial w_{jl}^1},$$

$$\frac{\partial x_j(k)}{\partial w_{jl}^1} = f'_j(\cdot) \left\{ x_l(k-1) + \sum_{i=1}^n w_{ji}^1 \frac{\partial x_i(k-1)}{\partial w_{jl}^1} \right\}, \quad (11)$$

$$\delta_i^0 = (y_{d,i}(k) - y_i(k)) g'_i(\cdot),$$

$$\delta_j^h = \sum_{i=1}^m (\delta_i^0 w_{ij}^3) f'_j(\cdot),$$

where, $i = 1, 2, \dots, m$; $j = 1, 2, \dots, n$; and $q = 1, 2, \dots, r$.

3. Basic Requirements for Courseware Design

The twenty-first century is an era of knowledge economy and information technology. Employees in the new century not only have good teacher ethics, noble sentiment, extensive

knowledge, and design technology of design industry but also have the ability to control modern design technology in industrial system activities [11]. Mastering the basic theory of computer-aided industrial system and the technology of making simple computer-aided industrial system courses has become an important means for employees to reform the methods of industrial system, improve the means of

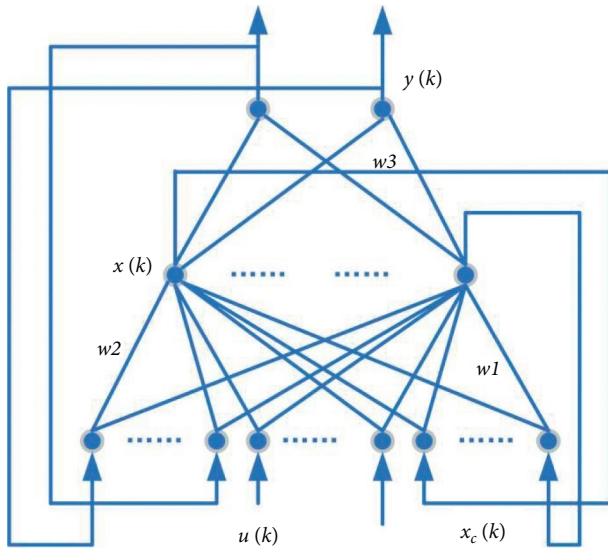


FIGURE 1: Neural network structure.

industrial system, and improve the quality of the industrial system. The production of multimedia teaching supporting industrial design is related to the design theory of the design industry. In addition, it is also related to computer technology. It is a high-quality course integrating design, science, and art. In addition, we must master the basic theory of advanced design industry design.

Computer-aided industrial system is a new comprehensive discipline. Its main task is to let students and most primary and secondary school employees (especially young and middle-aged employees) master the basic theory of computer-aided industrial design and learn the use and production of multimedia, so that the future owners of the twenty-first century can feel the brand-new industrial system ideas and design concepts brought by modern design technology. In the computer-aided industrial system, the computer system is the material basis. The characteristics of the computer-aided industrial system depend on the information processed by the computer system to a certain extent [12, 13].

First, the space for industrial system activities has been expanded, and the ways of industrial system activities have been enriched. Computer system makes the means of industrial system more flexible and convenient. Computers and computer networks have changed the traditional way of industrial systems. Industrial systems are not classrooms, and employees do not need classes. Computer-aided industrial system fixes the industrial system art of excellent employees on the software, which is more convenient to promote and use for the majority of students. Computer-aided industrial system will change the employee-centered industrial system mode into student-centered industrial system mode, so as to improve students' learning enthusiasm. Computer-aided industrial system can improve the defects of class industrial system to a certain extent, better realize the individualized industrial system, and actually implement talent design. Computer-aided industrial systems combine monotonous industrial systems and games in some

ways to teach for fun. Although computer-aided industrial system is not easy, it can be created far away. Virtual reality: let students walk in space, fly spaceships without difficulty, interview the ancients, and go out to visit the British Museum. Computer-aided industrial systems are not limited by age, and many students can really accept design for a lifetime. At present, multimedia is widely used in computer-aided industrial system software, which not only effectively improves the efficiency of information transmission but also improves the interest of the industrial system.

Second, it is convenient to save, sort out, revise, and retrieve data. The biggest advantage of the computer external memory is large storage capacity, which is very convenient for copying, correction, and retrieval. Using the computer-aided industrial system, employees can save classes, industrial plans, exercise questions, examination questions, and various materials on disk. If the network is connected, employees and students can retrieve the information they need from the public database. It can be used at any time as needed.

Third, quantitative analysis and statistics of various data can be carried out quickly. In computer-aided industrial design, many data generated in the process of industrial system generally exist in the computer system. Employees can take out these data at any time as needed, analyze, and count these data by computer and change the basis of design industry design from qualitative analysis inferred from past experience to quantitative analysis of data statistical calculation so as to improve the quality and efficiency of design industry systematics.

4. Courseware Design Process

4.1. Information Extraction of Multimedia Industrial Multimedia Computer-Aided System. The multimedia computer-aided industrial system course will complete the teaching of traditional classroom knowledge before the classroom, and the internalization of knowledge will transfer the homework activities after the original class to the learning activities in the classroom. Based on the current situation and characteristics of university design, combined with the concept of multimedia computer-aided industrial system, the industrial model of multimedia computer-aided industrial system is divided into four stages: industrial preparation, memory understanding, application analysis, and classroom comprehensive evaluation is designed. Figure 2 shows the system recognition process, in which the extraction process is to repeatedly calculate the eigenvalues of a large number of standard contents by multimedia technology, and the result is the reference model. The recognition process is the speech eigenvalue input by the user and decoded by multimedia technology [14, 15].

As the target object, the Big Data Mining algorithm has multiple educational models in the entire teaching field, which are designed according to educational theories. Scholars began to explore new educational development models using big data mining algorithms. Better multimedia education can not only provide students with comprehensive learning goals and tasks but also provide strong support and

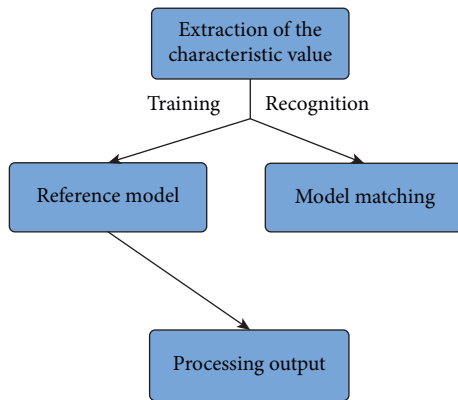


FIGURE 2: Flowchart of information extraction from multimedia technology courseware.

correct guidance for the comprehensive education of students' daily learning. In addition, multimedia technology courseware can encourage students to achieve expected academic results in the learning process. It mainly received 4 factors that have a greater impact. They are learning tasks, waiting time information, instant information, and some task exercises. Among the above important factors, learning tasks have always been the focus of college students' learning. It is mainly centered on student learning tasks and presented to students in a simple and uncomplicated form. In multimedia computer-assisted industrial system, it is necessary to fully integrate the specific learning content of students to guide and promote learners in colleges and universities and complete the construction of the cognitive model.

4.2. Various Conditions for Multimedia Industrial Multimedia Computer-Aided System

4.2.1. Professional Knowledge. As an expert in multimedia computers, create multimedia computer-aided industry education courses. First of all, you must be proficient in the systematic knowledge structure of making lecture projects. It usually includes the following aspects: (1) the development history and latest development trends and achievements of this project; (2) the technical type, technical specifications, technical structure division, technical principles, and accurate evaluation criteria of the technology of this project; (3) the latest thoughts, teaching models, and methods of the teaching of this project, as well as the key points, difficulties, and hot issues of teaching; (4) different views and personal opinions on the development of this project.

4.2.2. Basic Computer Processing Technology. As shown in Table 1, the multimedia computer-aided industry education course is a computer integrated system that integrates multiple media information such as text, sound, image, and video and is the main resource for convolution of neural network algorithms. To establish a multimedia computer-aided industry education course, you must be proficient in the following aspects of operating skills. (1) The editing skills of multimedia quality; (2) E-industrial education course

integration software; (3) the hardware conditions for developing multimedia computer-aided industrial education.

The observation probability of the state in the development and design of the multimedia computer-aided industry education course is based on the Gaussian distribution, and the logarithm becomes a uniform distribution, which affects the learning method. The score is relatively large. The jump probability between the states is relatively small. The centralized learning method has a relatively small effect on the score. Therefore, if the probability value of a certain learning method is very high in the dataset of a certain framework, it is probably not the best learning method in the world. At this time, the use of a fixed threshold to exclude the best learning method will seriously affect the recognition accuracy. The solution is to obtain the learning method with the highest and lowest score among the learning methods of the current frame and at the same time obtain the dynamic threshold by the method of dividing points.

$$\begin{aligned}
 P_{\min}(S_t) &= \min_{1 \leq j \leq N}(P'(j)), \\
 P_{\max}(S_t) &= \max_{1 \leq j \leq N}(P'(j)), \\
 c &= 0.618(P_{\max}(S_t) - P_{\min}(S_t)),
 \end{aligned} \tag{12}$$

where $P'(j)$ is the probability of learning method j , $P_{\min}(S_t)$ and $P_{\max}(S_t)$ are the worst learning probability and optimal learning probability of state S at time t , respectively, and c takes the golden section point of the difference between the two and substitutes it into equation (1). The threshold is found.

4.3. Multimedia Computer-Aided Industrial Teaching Design Strategy

4.3.1. The Structure and Design of Multimedia Computer-Aided Industrial System (Figure 3).

4.3.2. Cover and Title Page Design. It mainly includes beautiful cover, cover guide simulation, and navigation design.

4.3.3. The Design of the Screen Interface. The screen design mainly includes windows, menus, icons, buttons, dialog boxes and prompt bars, status bars, and other designs. Interface design should follow the following principles: (1) adaptation principle; (2) flexibility principle; (3) easy to learn and easy to use principle; (4) clear navigation, strong learning objectives, and prominent focus.

4.3.4. Design of Interactive Mode. The Internet is the life of the network. The general interaction methods are human-computer interaction and manual interaction. The specific methods are as follows: (1) buttons, hot words, hot zones, condition judgment, text input, moving objects (object areas), time limit, number of times, buttons, etc. (2) Human interaction: one-to-one, one-to-many; online mode: chat, discussion area; offline mode: e-mail, discussion community.

TABLE 1: Save format of editing software for different materials in multimedia computer-aided industry education courses.

Material name	Editing software	Common storage format
Text	Word2000; Cool3D.4.0	Word documentation
Graphic image	Photoshop6.0; PhotoDRAW; corel draw; Ulead PhotoImpact; digital camera enhancer V1.3	.Jpg; .Jpeg
Animation	3D studio MAX R3; poser 4.0; GIF movie gear; freehand; flash 5.0	.gif.flc.avi.mov
Sound	Audio editor; amorzing midi V1.60; acid Mavv2.4	.wav.MIDI
Video	Edit studio V2.1; cineplayer editor V1.45; axogon composer 1.0a; flicker free video framer 1.0 premiere 5.5	.avi.mpg

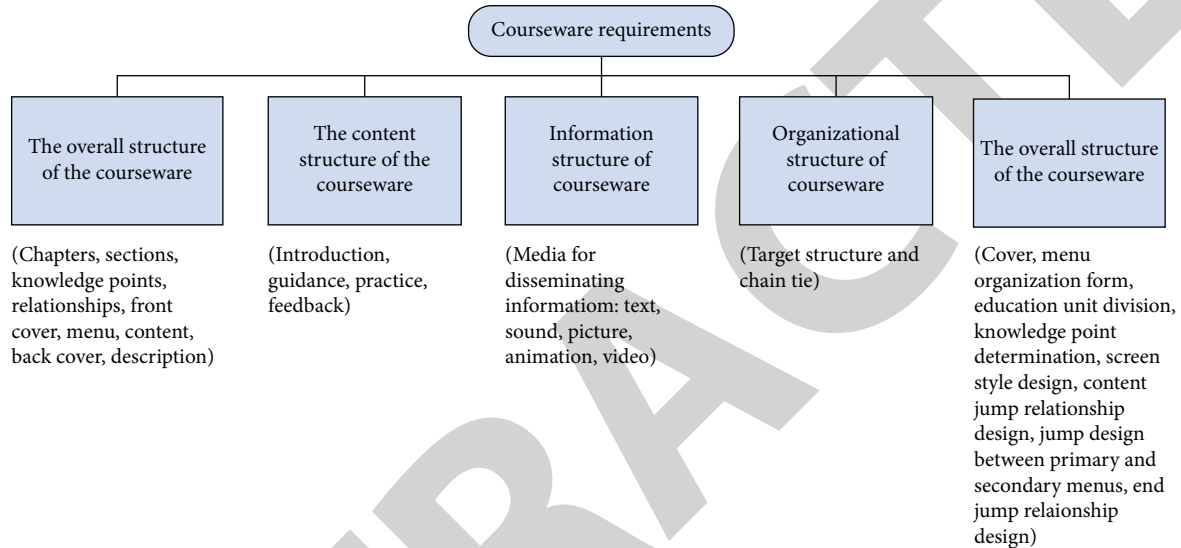


FIGURE 3: The structure and design steps of the multimedia computer-aided industrial system.

4.3.5. *Design of Navigation Strategy.* (1) Node Design. Node is the basic unit of information, that is, the basic unit of learning. It often includes more than one content unit, teaching strategies, and evaluation exercises. (2) Chain design: hierarchical, refined, and conversational type. (3) Teaching structure selection: sequential, circular, branched, indexed, and grid format. (4) Navigation design: mainly connected to relevant multimedia computer websites and understands more information.

4.4. *Multimedia Computer-Aided Industrial System Production.* In order to enhance the convenience of mutual learning and education, courses are usually connected by hypertext, with different buttons and hot words on each page.

4.4.1. *Manuscript Writing.* The manuscript of the textbook is the textual representation of the content of the class, including all the text content of the class design, and the article can be made separately. First, the experts prepared the

first draft of the manuscript, and the relevant experts were invited to review and propose amendments. Then, based on the experts' opinions, a symposium was held. After discussion, revise and finalize the manuscript to ensure scientificity, correctness, and authority of the manuscript.

4.4.2. *Script Card Design.* The script card is a direct basis for teaching production and plays a very important role. In the design of a good script card, besides the writer should have a certain educational experience, it is more important to integrate the educational features of psychology and computer into it. On the one hand, you must write the author, and on the other hand, you must understand the advantages and characteristics of computers. Fully complete conventional educational methods and achieve tasks that would be difficult to complete if they were not achieved. On the other hand, the author requested that, according to the common sense of psychology and the object of the course, a course that conforms to the students' cognitive process and vivid impression should be made.

The design of the script card is mainly based on the content of the manuscript, and the ideas of the teaching content, teaching strategies, selection of teaching media, and the expression of information are designed on each page. It specifically includes the text, images, graphics, video, sound, music, and other specific content and expression forms in the page. The editing of the script card directly affects the correct completion of the educational content. Whether the teaching format is vivid and whether the combination of various media is appropriate. The design of the scheme card is usually completed by the experts of the course and the experts of CAI. This mainly ensures that CAI editors can better understand the requirements of course professionals.

4.4.3. Multimedia Material Preparation

(1) *Production of Text Material.* There are mainly three types of scripts used in class: (1) ordinary static characters, (2) animated characters, and (3) artistic characters. These three characters are made according to different software. (1) Ordinary static text mainly inputs directly in the character input system. (2) Animation text increases the charm and artistic effect of users. On the other hand, Authorware 5.0 can set the effect through its own text animation. The color has changed dynamically, using special effects 3DCG StudioR3 and Cool 3D 3.0. (3) The art interface is designed for elegance and friendliness. This production is mainly done by the functions in Office 2000. That is to say, the production of the text takes different forms according to different content and different themes. However, we should avoid superfluous, turning the cart before the horse, and turning the subject and the object.

(2) *Image Production.* Images are mainly images, photos, and graphics used on classroom screens. There are three main sources for the content of this part. (1) Scan photos and images with a scanner, make image files, process, cut and repair with Photoshop 5.0 and Impact bulm. (2) For some other software and good images and graphics downloaded from the Internet, after grabbing the screen through Pintscreen, save it to the image clipboard and save it as a backup after processing. (3) Through VidieoSnip, capture good representative images in videotapes, VCDs, and other animations, save them as image files, and apply them to lectures.

(3) *Production of Animation Materials.* The production of animation is the hardest part of making the material, and it is also the longest part. Especially the production of human body animation requires time and effort. This lesson mainly uses 3DCG StudioR3 to make. Our focus is to create a complete demonstration technique of anticross jump, anticross jump jacket, and background from different angles. In the production of a complete technique, an idealized 3D animation model is proposed abstractly in accordance with the complete technical essentials of the back style high jump, action diagrams, and educational illustrations of outstanding players. The whole process was completed in four steps.

(1) Create an ideal action sketch based on the technical essentials of the text manuscript and the action sketches of excellent players. (2) Enter the 3Dmax interface, open the material library in it, and extract the 3Dmax human body material from it. Because the material here is always rough and has no color, this step is mainly to modify it to make it look like an athlete from the shape and to give the whole body a skin tone. (3) This is an important step. In other words, this is a complete technical production process. This process is the most time-consuming one. It is impossible to be sure without revising it hundreds of times. Mainly from the start of the athlete to the pole, its running distance, direction, stride size, swing, body inclination, foot position, etc., through the key frame setting, design more than 120 key frames in it, and a total of 300 renderings frame. (4) Location and background design. In order to better imagine the scene and be more realistic, the place and background of the high jump are designed. This is made with a file different from the previous finishing technique. After the location and background design is over, the files in 3DCmax are combined to form the same file.

(4) *Production of Audio Material.* Three voices are usually used in class. (1) According to the commentary recorded in the manuscript, (2) MIDI music as the background, and (3) the sound collected by the card from the video tape. In order to explain the sound, it is necessary to read the text correctly, pronounce clearly, and have a reasonable rhythm. In the MIDI selection as background music, 4 combinations are emphasized. That is, combined with the content of the interface, combine the color of the interface, integrate with the pronunciation of this page, and integrate with the rhythm of the movements in class.

(5) *Production of Video Material.* This is one of the key contents of the multimedia computer technology course. According to the teaching of multimedia computer technology, the main purpose is to produce correct, intuitive, and clear model actions for students. During the production of video materials, some excellent audio-visual textbooks are mainly selected, collected on the computer through the image collection card Snazzi software, and used as the video editor processing and editing. In the collection process, according to the different courses, it needs to collect several forms such as sound, no sound, slow motion, and constant speed action. In addition, organize athletes and students to use Panasonic cameras to record some important educational methods, typical mistakes, etc., for preparatory processing.

4.4.4. *Overall Production of Courseware.* After preparing materials such as text, images, video, sound, and video, enter the overall arrangement of the lecture. The layout of the entire course is mainly based on the script card and the hierarchical diagram of the teaching structure of industrial education. The production of the course is mainly carried out in Authorware. This part includes not only the moving of the script card content but also the correction of the expression of various media information, the selection of background, music, the size

of the text, the color, and the correction of fonts. After one page is fully produced, its powerful interaction is realized through hypertext links, and a three-dimensional grid structure is formed between the pages.

5. Examples and Results Analysis

5.1. Courseware Design and Production Ideas

5.1.1. The Guiding Ideology for the Development of the Courseware System. Multimedia CAI proposes a new education model. Emphasize the spontaneity of middle school students, stimulate students' interest, and stimulate students' desire for knowledge as much as possible to satisfy the environment in which students acquire knowledge according to their own personality. In addition, the courses are used in multimedia computer technology courses and are made by computers. Therefore, the optimized education design is combined with the production advantages of computer software, and the idea (taking into account staff education and student learning, media optimization) is the system. Multimedia computer technology is applied to industrial system design. At the same time, it is also the direct guiding ideology for writing the course script.

5.1.2. Theoretical Basis for Courseware Design. The design and production of multimedia computer courses are mainly based on modern learning theory, education communication theory, system science theory, modern education design theory, direct psychology foundation, and other theories.

5.1.3. Objects Used by the Courseware. Course matters are often developed for certain users and should be determined first in the course design part. For example, the "back style high jump computer-assisted industrial education course" developed by us is mainly rented as a staff in a multimedia computer professional school. Multimedia computer can be used as an auxiliary tool for teaching and students' self-study. In addition, due to its excellent reciprocity, it can also be used as a reference electronic textbook for other back-style high jump courses and training.

5.1.4. The Status and Limitations of Courseware in Teaching. In multimedia computer education, teaching is not a substitute for staff's teaching, but as a useful means of staff's classroom, staffs are still in a dominant position. After the course research was completed, it soon lags behind the development of the times. Moreover, the content of lectures, teaching methods, and methods are generally several common problems and content. Some special problems often appear in education. This is because experienced staffs need to solve these special problems. Therefore, staffs still play a leading role in multimedia computer education rather than a coaching role.

5.2. The Conditions of Using Industrial Multimedia Computer-Aided System. The idea of modern education is that learning, not teaching, occupies a central position in the

process of industrial education. The goal of learning should be understanding and discovery, not rote memorization. The CAI system is a human nature dialogue industry education system composed of staffs, computers, and students. The task of staffs is to formulate education plans and prepare teaching, and students use classrooms and computers to learn. It can be seen that the industrial education course is another complete industrial education method after the electrochemical industrial education methods such as projection, slides, sound recording, film, and video recording. This is mainly manifested in the participation of students. In the past industrial education, the participation of students was limited. CAI has unique advantages in this regard. Due to its mutuality and personality, students can master the knowledge they have learned in a very fresh, relaxed, and curious way. You can also ask questions to the computer.

The industrial education curriculum is an industrial education system based on learning theory and industrial education theory. It is computer software with industrial education functions and is based on the ideas of computer software engineering and industrial education theories. The method is an industrial education program designed and compiled in conjunction with each other. Therefore, the classroom is also a computer program for the computer to perform industrial education tasks and a medium for storing and displaying industrial education content and industrial education methods. The term "course" has a broad meaning. In the education of the electrochemical industry, the educational content and technical methods of a certain stage of the industry are combined to form a finished product used in this industrial education called a lesson. For example, a certain combination of slides that teach industry education content can be called a lecture. However, in computer-assisted industrial education, the teaching content is an industrial education software package for teaching certain industrial education content. It has a clear industrial education purpose, reflects the content and structure of teaching materials, and is a program system with corresponding industrial education strategies.

5.3. How to Use Computer-Assisted Industrial System in Multimedia Computer Technology Course Teaching. Through educational experiments, the staff of the research group used SPSS17.0 to conduct independent sample *t*-checks on the collected premeasured and postmeasured educational scores and total scores of the experimental group and the comparison group, respectively, to check whether there are differences in related variables before and after the two groups of experiments. Whether the difference is significant or not, discuss its reasons with the analysis of the questionnaire survey results. The computer education model of Mind Map Software Primary School has significantly improved the computer education level of students before and after the experiment. In this study, the results of independent sampling inspection on the composition scores of the experimental class and the comparative class are shown in Table 2.

Table 2 shows the primary school computer teaching through mind mapping software. The average composition

TABLE 2: Composition score prediction and posttest group statistics of experimental class and comparison class.

	Number of people	Mean	Standard deviation	Standard error of mean
Control preclass test	65	8.66	1.89	0.23
Control after-class test	65	9.71	1.22	0.16
Control preclass test	65	8.53	2.04	0.26
Control after-class test	65	10.74	1.29	0.16

score of the experimental class is 10.74, the comparison class is 9.70, and the widening is 2.21 and 1.14, respectively. The standard deviation of the experimental class dropped from 2.0477 to 1.293, indicating that the overall level of composition teaching in the experimental class has improved. Through the independent sample examination of the pretest and posttest of the composition scores of the experimental class and the control class, the composition education level of the experimental class was significantly higher than that of the control class.

6. Conclusions

With the continuous improvement of the level of science and technology, the economy will usher in globalization. The challenges brought, especially the need for college students to have the ability to quickly select and obtain information, accurately identify data information and maximize the ability to process and process information and learn how to use multimedia technology in the multimedia teaching process. It can cultivate knowledge learning and learning abilities suitable for university students and adapt to the necessity of students' personal development and the requirements of high-quality talent training.

Data Availability

The data used to support the findings of this study are available upon request to the author.

Conflicts of Interest

The author declares no conflicts of interest.

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References

- [1] Y. Shi and S. Chen, "Development and teaching application of new intelligent courseware in "sports economics", *International Journal of Emerging Technologies in Learning*, vol. 11, no. 5, pp. 145–156, 2016.
- [2] C. Kim, K. Seo, Y. M. Ro, and M. S. Hahn, "Method for intelligently displaying sports game video for multimedia mobile terminal," *Journal of Computational and Theoretical Nanoscience*, vol. 7, no. 6, pp. 139–150, 2016.
- [3] J. Xu, "A study of extension strategies of multimedia online teaching platform in sports teaching of universities," *Journal of Computational and Theoretical Nanoscience*, vol. 4, no. 37, pp. 6546–6550, 2017.
- [4] Y. W. Salman, "Sustainable development of students' workload using multimedia interactive programs in sport education: challenges and opportunities," *International Journal of Sports Science*, vol. 130, no. 8, pp. 1–7, 2016.
- [5] R. Guan, *Computer Multimedia Application in Soccer Movement and Sports Teaching Research*, pp. 251–260, RISTI—Revista Iberica de Sistemas e Tecnologias de Informacao, Lääne County, Estonia, 2016.
- [6] C. Ning, "Design and research of motion video image analysis system in sports training," *Multimedia Tools and Applications*, vol. 24, no. 4, pp. 32–43, 2019.
- [7] Q. Zhu and J. Sun, "Competitive product behavior and family sports multimedia education platform based on smart system," *Revista de la Facultad de Ingenieria*, vol. 32, no. 4, pp. 666–672, 2017.
- [8] X. Zha and X. Zhang, "Study on the dynamic development of folk custom sports and inheritance innovation in heilongjiang province," *International Journal of Multimedia and Ubiquitous Engineering*, vol. 11, no. 5, pp. 377–386, 2016.
- [9] S. Zhang, "Evaluation of the heilongjiang province sports teaching in university sustainable innovation ability based on gem-ahp- fuzzy evaluation," *International Journal of Multimedia and Ubiquitous Engineering*, vol. 10, no. 1, pp. 379–390, 2015.
- [10] M. Zhuang, "Sports video structure analysis and feature extraction in long jump video," *International Journal of Multimedia and Ubiquitous Engineering*, vol. 9, no. 9, pp. 83–92, 2016.
- [11] S. Xiaoling, "Innovation management of English teaching in higher vocational colleges in China," *Agro Food Industry Hi-Tech*, vol. 28, no. 1, pp. 628–631, 2017.
- [12] L. Xu, "A study on "experiential" English teaching mode of higher vocational colleges," *International Journal of Multimedia and Ubiquitous Engineering*, vol. 7, no. 2, pp. 1–10, 2015.
- [13] Q. Hu, "Strategies for module teaching in public English teaching in higher vocational colleges," *Journal of Contemporary Educational Research*, vol. 4, no. 3, pp. 1104–1109, 2020.
- [14] D. Yan, "English teaching in higher vocational colleges based on "micro-course + divided" teaching model," *The Theory and Practice of Innovation and Entrepreneurship*, vol. 51, no. 1, pp. 148–165, 2019.
- [15] D. Pan, "Research on teaching management and teaching mode innovation and practice in software technology specialty," *Advances in Higher Education*, vol. 3, no. 2, p. 32, 2019.