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Retraction

Retracted: Structural Analysis of PE Teaching Strategy and System Knowledge Management Based on Mobile Digital Information Technology

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1].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] F. Yang and Y. Shan, "Structural Analysis of PE Teaching Strategy and System Knowledge Management Based on Mobile Digital Information Technology," *Mobile Information Systems*, vol. 2022, Article ID 2877927, 9 pages, 2022.

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Research Article

Structural Analysis of PE Teaching Strategy and System Knowledge Management Based on Mobile Digital Information Technology

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In order to solve the physical education strategy problem of mobile digital information technology, a structure analysis and research method of systematic knowledge management department is proposed. First of all, the arrival and continuous maturity of the economic era has provided technical support for the development of many fields, especially the progress of information technology to strengthen the advantages of information management. Now the information management has gradually risen to the development stage of knowledge management. Secondly, there are related group learning and teachers' personal knowledge management questionnaire survey. The statistical results of 178 valid questionnaires collected showed that 100% of teachers admitted that they had participated in different forms and types of group learning, and 91% of preschool teachers believed that they had a basic fixed time and content of group learning. However, 64.2 percent of teachers admitted that they did not consider personal knowledge management at all. For what is a personal knowledge management, 43.8% of the teachers are only heard of the term "personal knowledge management" but do not know the specific meaning. 17.4% of the teachers had heard of it and knew something about it. Only 3.4% of teachers clearly understood the meaning of personal knowledge management, and 35.4% had never heard of the concept of personal knowledge management, let alone the application of personal knowledge management strategies. The results show that how to excavate the structure of knowledge management of sports subject systematically through the innovation of PE teaching strategy, and excavate tacit knowledge and comprehensive explicit knowledge more deeply is the focus of this study. Therefore, from the perspective of knowledge management, an educational information resource management system is proposed, which can classify subject knowledge effectively and intelligently by means of mobile information technology.

1. Introduction

The training mode is a kind of teaching knowledge and skills developed according to the current curriculum. It focuses on the integration of curriculum, equity and curriculum information, while giving priority to solving high-level problems. Special attention should be paid to the application of knowledge and skills in physical education. Through a comprehensive process, knowledge management, and multidisciplinary teaching, students can gain a deeper understanding of the subject and build relationships in their path to success. The physical education curriculum should focus on knowledge management, and the curriculum should focus on improving driving skills, thinking, and integrity while focusing on learning in organization. We should start with physical education materials and organize physical education classes based on the main points of the curriculum. New teaching strategies should be integrated into physical education textbooks. Therefore, the purpose of this paper is to help the teaching and knowledge management of physical education courses by developing an education management record and use system so that all available data can be obtained. See Figure 1.

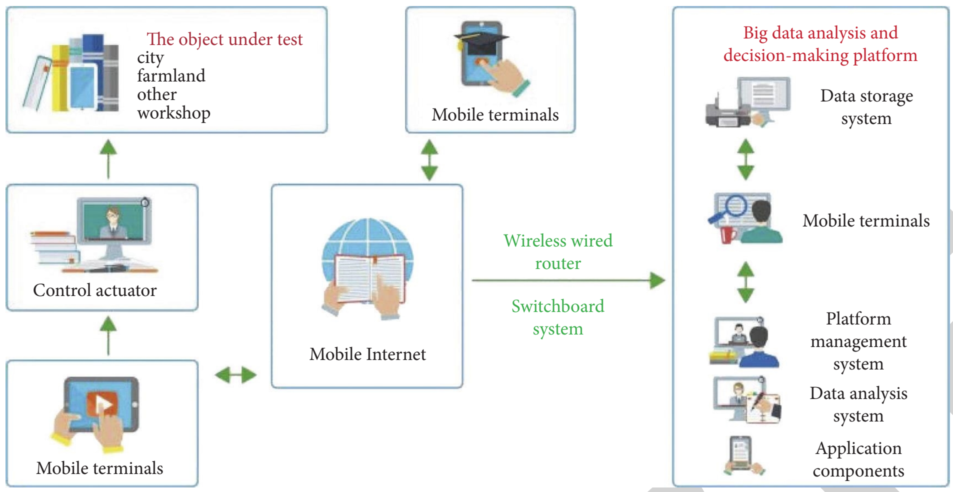

Figure 1: Physical education teaching strategy of mobile digital information technology.

2. Literature Review

A large number of experiments show that in the tide of new curriculum reform ideas, the ideas throughout the physical education curriculum are "student-oriented", "to promote the initiative development of students" new ideas. Research-based learning, cooperative learning, doing middle school, and other sports teaching methods rise one after another, becoming the trend of sports teaching reform in the new era. These teaching methods all emphasize the students' participation in activities and the cooperation and communication between students, so as to carry on the perception, understanding, and innovation of motor skills [1]. That is to emphasize the acquisition of students' subjective experience and accumulation of individuals and also to emphasize the integration of explicit knowledge and tacit knowledge. This is where the value of knowledge management lies.

As early as 1999, Ba and Qi [2] put forward the physical education teaching strategy of mobile digital information technology, thus starting the study of school domain knowledge management [2]. In 2000, Warnars published the report Knowledge Management in the Learning Society, clearly pointing out that education is a Knowledge business. In 2002, Zhang and Jasimuddin [3] wrote a monograph on Knowledge Management in Education, Knowledge Management in Education, which promoted the in-depth research in this field [3].

According to the current research, the research of mobile digital information technology PE training concept and management knowledge is planned. Concerning the concept of knowledge management, various studies and various disciplines lead to differences in knowledge management, but still lack good understanding. Some scholars believe that the concept of knowledge management needs to be clarified and implemented in order to help people understand the meaning of knowledge management. Knowledge management is the effective identification, acquisition, storage, exchange, and application of knowledge. It is a way to use skills to transform and share knowledge about sexuality and to improve the organization's ability to adapt and innovate [4, 5]. The goal of knowledge management is to eliminate secret knowledge, enrich certain knowledge, share knowledge through collaborative learning, turn all members' secret knowledge into knowledge, gather, and thus apply new knowledge.

3. Construction of Subject Knowledge Intelligent Inquiry System Based on Mobile Information Technology

3.1. Knowledge Database Content Publishing and Retrieval. Define associations between various channels and background databases (one channel corresponds to one database or view): In the channel management interface of the TRS WAS management Console, click Add Channel, enter the channel name: biomedical Engineering, and then enter the corresponding values in the server IP address, server port, user account, and password. As for the template (template file to control the performance of the entire page) of the choice, because the system has its own overview, combination retrieval template is not completely corresponding to the new database, so we need to modify the template [6].

Web module is a Web application server based on HTTP server. It automatically accesses the background database system according to the settings of the TRS management console and the access request of the client (Web browser), and dynamically organizes the information into Web pages and sends it to the client. TRS WAS uses the template technology to control the output format of web pages. The template itself is IN HTML format. You can use any HTML making tool to design the template, and the description of database information in the template can reach the field level [7].

Input 'biomechanics' in the search box of 'full text search' on the TRS WAS40 release interface for unextended search, and the results are 11 records, 2 of which are related: 80% to 100%, 4 of which are related between 40% and 80%, 2 of which are related between 0%, and 3 of which are related between 0% and 40% [8]. Then, also entering biomechanics, select extended search, which results in 323 records. We can see that in addition to 'biomechanics', the results also contain the following words: 'Compressive strength; Elastic; Friction; Dynamics; Ascension; Flexibility; Stress, Physics: Tensile strength: torque'. The records of vibration: load 'were retrieved'. Similarly, enter the word "nano" in the search box of "full text search", and the results contain three records. The correlation of the three records is 100%, 73%, and 43%, respectively. The results are sorted by the word frequency of the hit word and as correlation [9].

Here are many key technologies for intelligent information retrieval technology on the network [10]. For example, text and nontext knowledge mining is described in this paper. Semiformatted Web pages and documents stored in HTML format are the main organizational forms of Internet information at present. Text knowledge mining is to discover the implicit rules in it, so as to realize the intellectualization of Internet knowledge mining [11]. Without text knowledge mining, intellectualization cannot be realized [12]. The most commonly used text knowledge mining method is based on document feature vector space model, as shown in Figure 2.

3.2. HTML Page Text Intelligent Search Classification and Query. Data distribution is the process of dividing large amounts of data into one or more categories based on their content and context [13]. Automatic data sharing is an important part of data processing tools in a wide range of mailing applications, electronic conference, information filtering, and so on. The following network text classification technology and its implementation algorithm adopt intelligent knowledge mining technology, which combines artificial intelligence with database technology and uses computers to intelligently classify network text data [14]. Since most of the information on the Internet is not in the form of text, the use of text classification technology will greatly improve the efficiency of people's use of network information resources [2].

3.2.1. Network Text Data Classification Algorithm. First, document classification algorithm based on concept.

Let the text be divided into N categories, as shown in the following formula:

$$D = D'U\ D'', \tag{1}$$

where A is the training text set and D is the text to be classified. The method compares the text to be classified with the text gravity center of each category and selects the category with the maximum similarity [15].

Set the text as n class and the vector of class C is shown in the following formula:

$$C = (\alpha_1, \alpha_2, \ldots, \alpha_m). \tag{2}$$

Documents to be classified represent the following formula:

$$d = (\omega_1, \omega_2, \ldots, \omega_m). \tag{3}$$

Its similarity is shown in the following formula:

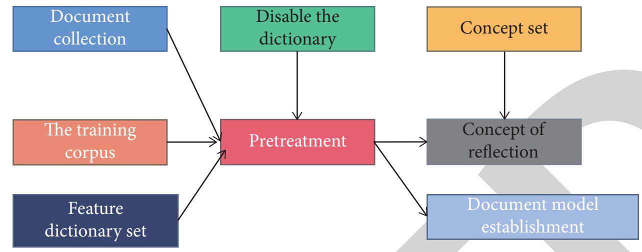

Figure 2: CVSM model.

$$\mathrm{sim}(\mathrm{d}, c) = \frac{1}{\|\mathrm{d}\|\|c\|}\sum_{j=1}^{m}\alpha_j\omega_j. \tag{4}$$

The document category of the maximum value of $\mathrm{sim}(d, c)$ is the document category to which D belongs.

Second, Bayesian classification method.

The Bayesian classification method classifies text data according to the value size. As shown in the following formula:

$$c' = \arg\max\left[\frac{\log P_r^{(c)}}{n} + \sum_{i=1}^{m} P_r\left(\frac{x_i}{\mathrm{d}}\right)\log\left(\frac{P_r(x_i/c)}{P_r(x_i/\mathrm{d})}\right)\right], \tag{5}$$

where x_i refers to the ith feature of c-type documents, $P_r(x_i/c)$ is the probability of obtaining the feature word x_i from C-type texts, $P_r(x_i/d)$ is the probability of obtaining D is the special word in the text, n is the number of words in D, and M is the size of the dictionary. If the received initial value is higher than the initial value, the letter D is subdivided into C, otherwise it is incorrect. From the measurement results, the Bayesian distribution can be defined as follows [16].

Assume that the vector fraction of data D is the frequency of the occurrence of the specific word corresponding to the data, followed by the probability of D. Belonging to class C document is shown in the following:

$$p\left(\frac{c}{\mathrm{d}}\right) = \frac{p(c)\prod_{\cdot xj\in v} p(xj/c)^{TF(xj\cdot \mathrm{d})}}{\sum_i p(c)\prod_{\cdot xj\in v} p(xj/c)^{TF(xj\cdot \mathrm{d})}}, \tag{6}$$

$$p\left(\frac{x_j}{c}\right) = \frac{1 + TF(x_j, c)}{|v| + \sum_i TF(x_j, c)}. \tag{7}$$

$p(x_j/c)$ A is the Laplacian probability estimate of the conditional probability of feature word and occurrence in class C documents, $TF(x_j, c)$ is the frequency of occurrence of feature word x_j in class C documents, $TF(x_j, d)$ is the frequency of occurrence of feature word x_j in class D documents, and $|v|$ is the total number of different features contained in the document representation.

Third, k-nearest adjacency classification algorithm.

The algorithm determines the category of the guest file through the probability distribution of the category of K documents closest to the document d [17]. The probability that document D belongs to class C is shown in the following formula:

$$p\left(\frac{c}{\mathrm{d}}\right)=\frac{\sum_{i=1}^{k} sim\left(\mathrm{d},\mathrm{d}_i\right)p\left(c/\mathrm{d}_i\right)}{\sum_j\sum_{i=1}^{k} sim\left(\mathrm{d},\mathrm{d}_i\right)p\left(c_j/\mathrm{d}_i\right)}. \tag{8}$$

Fourth, the classification method of conceptual inference network based on semantic network.

The conceptual inference network uses information gain to measure the core word, that is, a word is considered as a core word when its category membership is greater than a predetermined min value. The evaluation function of core words is shown in the following formula:

$$\operatorname{InfGain}(F)=P(F)\sum_i P\left(\frac{\psi_i}{\overline{F}}\right)\log\frac{P\left(\psi_i/F\right)}{P\left(\psi_i\right)}+P\left(\overline{F}\sum_i P\left(\frac{\psi_i}{\overline{F}}\right)\right)\log\frac{P\left(\psi_i/\overline{F}\right)}{P\left(\psi_i\right)}. \tag{9}$$

F is a word; P(F) is the probability of occurrence of word F; $\overline{F}$ means that word F does not occur; $P(\psi_i/F)$ is the probability of occurrence of type ψ_i , and $P(\psi_i/F)$ is the probability of occurrence of ψ_i when word F occurs. InfGian is defined as category membership degree. When it is greater than a given idle value, it is considered as a core word. The specific semantic correlation degree is defined in the following formula:

$$\operatorname{con}_{i,j}^{D_k}=\frac{\operatorname{con}_{i,j}^{D_k}}{\operatorname{freq}\left(F_i^{D_k}\right)+\operatorname{freq}\left(F_j^{D_k}\right)}, \tag{10}$$

$$\operatorname{con}_{i,j}^{\psi_i}=\frac{\sum_k\operatorname{con}_{i,j}^{D_k}}{\max\limits_{i,j}\sum_k\operatorname{con}_{i,j}^{D_k}}. \tag{11}$$

The larger the value of $\operatorname{con}_{i,j}^{\psi_i}$ is, the higher the semantic correlation degree of F_i and F_j in category ψ_i is. Similarly, the support degree of words F_i and F_j in category ψ_i document D_k is shown in the following formula:

$$\operatorname{sup}_{i,j}^{D_k}=\frac{\operatorname{freq}\left(F_i^{D_k}\right)+\operatorname{freq}\left(F_j^{D_k}\right)}{\sum_k\operatorname{freq}\left(F_l^{D_k}\right)}, \tag{12}$$

$$\operatorname{sup}_{i,j}^{\psi_i}=\frac{\sum_k\operatorname{sup}_{i,j}^{D_k}}{\max_{i,j}\operatorname{sup}_{i,j}^{D_k}}. \tag{13}$$

According to various relations in the inference network, nodes in the network are given different membership degrees and weights W, and the concept of core node is set as shown in the following formula:

$$C_i\,(i=1,2,\ldots,k). \tag{14}$$

The corresponding adjacent node is child, and the association between the document and the category is shown in the following formula:

$$\sum_{i=1}^{k}\frac{1}{k(i)}\times\left(\operatorname{InfGain}\times\sum_{i=1}^{k(i)}A_{i_1}\times\omega_{i_1}\right). \tag{15}$$

Finally, category 1 of the following formula can be evaluated as the document category, as shown in the following formula:

$$\max_{q=1}^{m}\sum_{i=1}^{k}\frac{1}{k(i)}\times\left(\operatorname{InfGain}\times\sum_{i=1}^{k(i)}A_{i_1}\times\omega_{i_1}\right). \tag{16}$$

Concept-based text clustering compares the text to be classified with each category text center, and the text with the greatest likelihood is considered to belong to this category [18]. This algorithm has fast response speed and is easy to calculate. Because probability density is used as the weight, it has higher precision than pure speech class comparison. Both Bayesian classification and K-nearest adjacency classification algorithms are based on VSM (vector space model), which determine the attribution of text vectors according to the distance between them [19]. Because these algorithms fail to consider the interaction between feature vectors in the vector model, the classification accuracy is not very ideal. The conceptual inference network based on semantic network uses the relationship between key concepts and other concepts to simulate the process of human classification and achieve text classification. Traditional VSM-based classification algorithms use Euclidean distance cosine distance inner product similarity test [20]. Conceptual inference network takes into account the interference of useless features in vector space to distance calculation and the internal relationship between core concept words and their related words. The algorithm based on core concept has higher accuracy than distance calculation.

4. Analysis of PE Teaching Strategy and Systematic Knowledge Structure Management

4.1. Knowledge Structure Management

4.1.1. Constituent Elements. The elements of knowledge management are schematically described by a model, as shown in Figure 3.

We make a distinction between data and information and knowledge and wisdom, as shown in Figure 4.

(1) Data: Data are discrete objective facts about events, which constitute the basis of information and knowledge, and have no inherent meaning in themselves [21].

(2) Information: Information is structured and systematic data. It is meaningful data after classifying, analyzing, and summarizing data. Information is an important part of knowledge, which can be formed

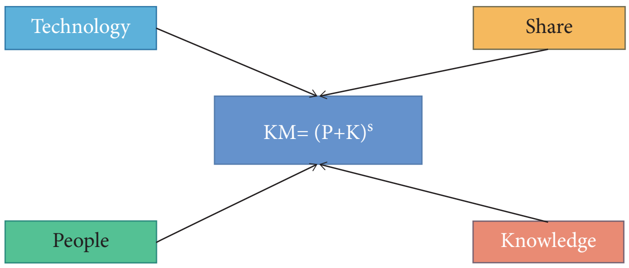

FIGURE 3: Components of knowledge management.

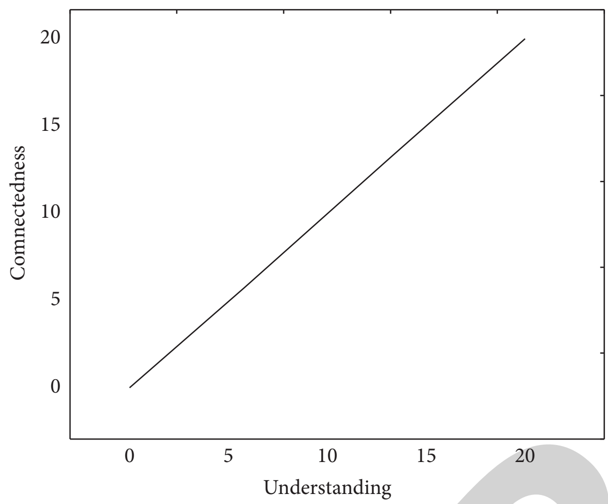

FIGURE 4: The relationship among data, information, knowledge and wisdom.

by connecting, organizing, and comparing with other information [22].

(3) Knowledge: Knowledge is a dynamic process of development. It is the dynamic cognition of the objective world which the subject processes information on the basis of practice and develops infinitely.

(4) Wisdom: The ability to use information and knowledge effectively. People acquire wisdom when they master and apply knowledge. See Figure 4.

4.2. Optimization of Knowledge Management Technology in Organizational Management. The practice of knowledge management cannot be separated from the promotion of technology, which is a tool to promote the extraction, consolidation, and dissemination of knowledge. When applying business management knowledge, the use of technology through the exchange of knowledge makes it easier and faster to communicate with internal staff and partners of the industry [23]. The development of information technology has given information and liability for knowledge management, improving the exchange of human information, expanding the collection of information, and the rapid exchange of information. All of this creates a good environment for developing and implementing knowledge and is an integral part of equipment and management knowledge. For example, in the transformation phase of intelligence, information and communication technologies such as video conferencing and e-mail strengthen human communication and support the process of transforming hiding knowledge into knowledge [24]. Computer simulation technology and virtual reality technology can be used as a bridge for real world communication.

Discovery of educational knowledge EKDD is the whole process of extracting valuable knowledge from information technology. This is a topic discussed in database technology and machine learning. Knowledge-Based Research is a multi-step process that includes the following steps, as shown in Figure 5.

OLAM is a combination of online analytical processing and data mining [25]. Online analytical processing is based on multidimensional view, which focuses on linking a large amount of relevant information directly from different information sources in the data warehouse according to existing patterns to give analysts a clear and consistent view, emphasizing execution efficiency and quick response to users, and its direct data source is generally the data warehouse. Mining technology is based on a variety of data sources and focuses on discovering useful patterns hidden in the deep layer of original data for learners. Generally, execution efficiency and response speed are not considered too much [26]. Therefore, OLAM has the linearity, flexibility, and depth of data processing of multidimensional analysis, which is suitable for the organization of network information resources with large amount of data, complex information types, and various forms of expression.

4.3. Architecture Design of KMIS System Based on Knowledge Grid

4.3.1. Architectural Model. The system will consist of a central node and N district-level server clusters, and the whole system will connect different district-level clusters to the central grid portal server via LAN or Internet [27]. Here are three roles in the system: system user, grid central node portal server (knowledge base server), and district cluster portal server (database server). See Figure 6.

We use bottom-up and top-down software modeling methods to divide the system into three layers: knowledge resource layer, structured knowledge and heterogeneous knowledge collection, and preliminary processing, located at the bottom of the architecture, which includes: KMS database, knowledge cases, video files, and other computing, storage, network resources. The middle layer is the grid service layer, which is the core of KMIS and provides ontology knowledge base service, knowledge ontology construction service, and security policy service. See Figure 7.

4.3.2. The Man-Machine Layer. The core part of the man-machine layer is the intelligent browser, which provides a powerful visual interface and strengthens the personalized search and knowledge recommendation function by using Cookie technology. It is aimed at four different levels of users: general users, decision makers, management, and

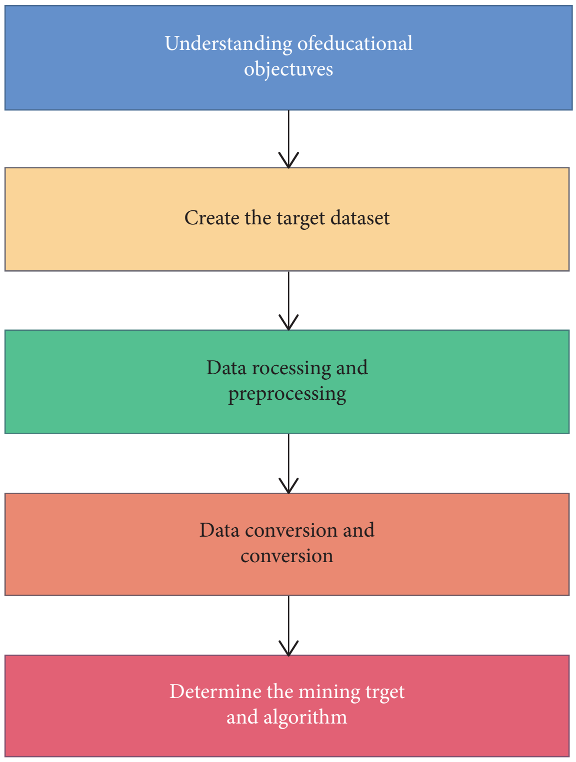

Figure 5: Flowchart of educational knowledge discovery.

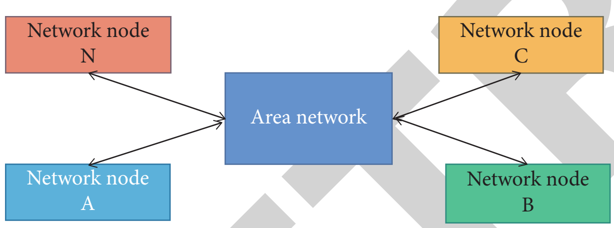

Figure 6: KMIS architecture based on knowledge grid.

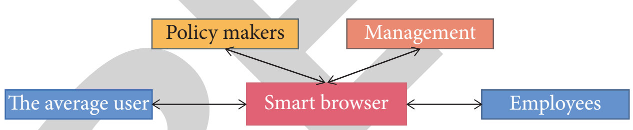

Figure 7: KMIS three-layer framework system based on KG.

employees, with different levels of users having different access rights to the smart browser. Intelligent browser has the following general functions for all users: personalized search; knowledge recommendation; knowledge metalinks.

4.3.3. Grid Service Layer. The grid service layer is the core of KMIS and its main function is to express, redefine, interoperate, and store domain knowledge using knowledge ontology. The grid service layer avoids the direct interaction between knowledge users and knowledge resources, and users do not need to care about the form and location of knowledge resources. The temporary change of knowledge resources will not have immediate impact on users' decisions, thus enhancing the stability of the system. The grid service layer can be divided into ontology knowledge base service, knowledge ontology construction service, and security policy service. See Figure 8.

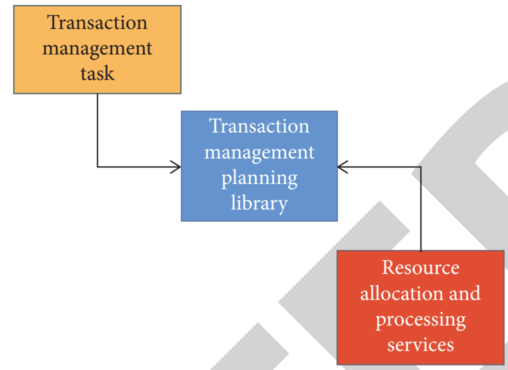

Figure 8: KMIS grid resource layer architecture.

4.3.4. Knowledge Resource Layer. KMS knowledge source is the foundation of KMIS construction. The data in KMS database is well structured, so it does not need great work intensity. A series of knowledge rules can be obtained by redefining and redescribing each relatively independent module in the original KMS through indirect integration technology. These knowledge rules are stored in the knowledge rule base and play a guiding role in data mining. The knowledge after mining processing can conform to such knowledge rules. The knowledge of knowledge mart can be realized by data mining algorithm. In addition, the knowledge community on the LAN or the information on the Web is different from the information in the database, it is mainly a large number of heterogeneous information resources, the document structure is poor, and its storage is mostly semistructured and unstructured data. Because such types of data structures are difficult to be clearly represented by data models, some potential knowledge rules can be found through some algorithms of data mining. It represents the whole service process of knowledge resource layer data mining. See Figure 9.

4.3.5. Knowledge Element Design and Knowledge Element Link. Knowledge of historical theory, knowledge of database history, and knowledge of connectivity play an important role in the development of KMIS. The essence of knowledge is the minimum of freedom of knowledge that reflects the laws of microscopy, such as circumstances, human life, and scientific knowledge. A knowledge metadatabase is a knowledge base that is independent, impacted by knowledge gained from knowledge resources after developing content knowledge. Therefore, knowledge metadatabase is knowledge-oriented. Each knowledge element automatically forms a knowledge association network through the knowledge element link. Different link methods constitute different knowledge expression, which makes the knowledge meta-database not only used for basic knowledge learning but also used to support the study and research of

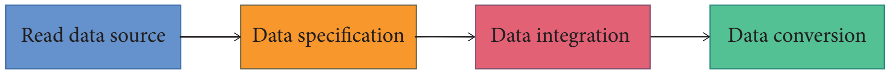

Figure 9: Data mining services.

the discipline and interdisciplinary, and provides a prerequisite guarantee for the realization of interconnection and communication of ontology knowledge base through the knowledge meta-database. By dividing the organizational knowledge structure into the smallest units that can be used independently, the department general knowledge meta-structure is constructed. Knowledge element forms knowledge chain through knowledge link, which is the link to form the whole knowledge structure. See Figure 10.

4.3.6. Knowledge Storage Intensifies and Innovation Spirals. Knowledge innovation is produced in the process of knowledge flow and is the most effective way to expand knowledge resources. Some scholars divide the transformation of knowledge into four different modes: (1) socialization, from latent knowledge to latent knowledge; (2) externalization, the transformation of secret knowledge into specialized knowledge; (3) the general concept, the transformation of some knowledge into specialized knowledge; (4) inner knowledge, from special knowledge to secret knowledge. See Figure 11.

4.4. System Function. The functional requirements of resource management system in the technical specifications for educational resource construction mainly include three subsystems: (1) resource management; (2) system management; (3) resource service and use communication. In order to meet the basic functional requirements of the resource management system, this paper designs the architecture of the educational information resource management system from the perspective of management as shown in Figure 12.

The resource management subsystem is mainly responsible for navigation, browsing, retrieval, classification, uploading, input, review and release, sorting and reclassification, download, and so on.

4.4.1. Navigation through. Navigation browsing refers to the operation guidance of the system for users. In order for users to quickly and accurately find the resources they need, we can present the resources according to their purpose, such as media material bank, question bank, case bank, and lesson bank.

4.4.2. Resources Retrieval. The educational information resource retrieval module is divided into three parts: basic retrieval, advanced retrieval, and resource library. Basic search is a fuzzy search method. Users can search for required resources based on keywords set during resource storage, such as resource name, author, keyword, and resource attribute. The advanced retrieval part provides more retrieval information for users to choose. During operation,

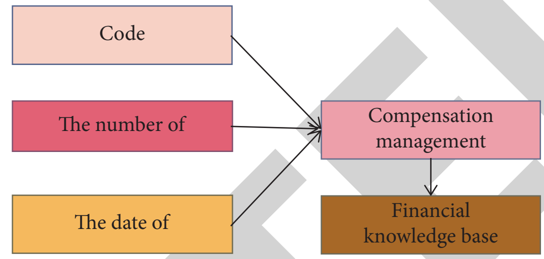

Figure 10: Knowledge chain.

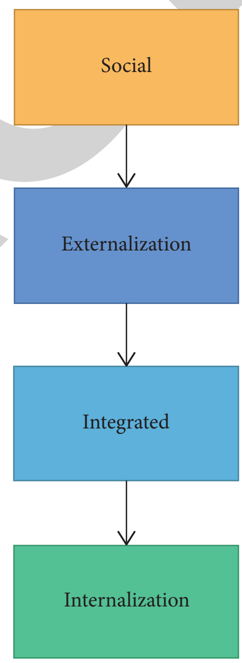

Figure 11: Knowledge transformation mode.

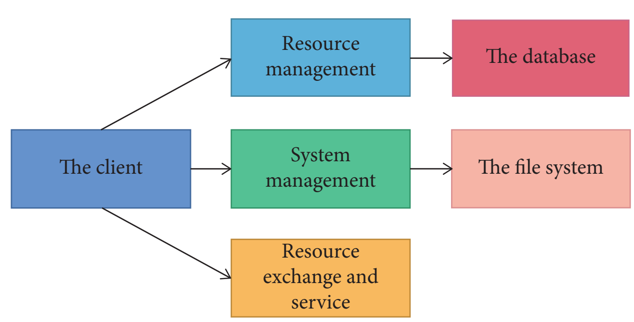

Figure 12: Architecture of educational information resource management system.

the logical relationship between resource metadata information is improved through the selection of resource retrieval items, and the precision of searching resources is increased. Resource library search is categorized by discipline, resource type, resource format, grade level, and so on.

4.4.3. Resource Registration Upload Module. The resource registration module in the education information resource management system provides users with a complete page of registered resources, which can be divided into three categories: basic information, advanced information, and other information. Each category also explains the metadata information of educational information resources.

4.4.4. The Resource Classification. In the education information resource management system, resources are applied to primary schools, junior high schools, senior high schools, and universities. Types of resources are materials, pictures, sounds, courseware, etc. Subject classifications are Chinese, mathematics, English, physics, as well as subject resources classification.

4.4.5. Resource Entry. The standardized input of educational information resources is the basis of effective management of resources by resource management system. In the process of inputting educational information resources, metadata information of resources should be standardized description and stored in detail, so as to facilitate users' retrieval of resources and provide users with various forms and acquisition methods to find resources. The standardization of educational information resource input is the key step of resource sharing.

4.4.6. Resource Audit. The resources uploaded by users are automatically marked to be audited and stored in the temporary repository for audit by resource auditors of all disciplines. The system administrator confirms the resources to be audited and uploaded in the temporary resource repository. After cataloging the qualified resources, the resources are stored in the repository. The system automatically deletes unqualified resources to ensure resource reliability.

4.4.7. Resources Downloading. Users can find the target resource by searching the resource according to the actual needs. For the convenience of users, the system provides download function. Users can download the resources stored in the resource management system to their local computers for free, increasing the frequency of resource usage.

4.4.8. Resource Collation and Reclassification. The main purpose of collating educational information resources is to check the accuracy of resource description.

5. Conclusion

Curriculum development is an important part of developing educational resources. This is a major project that focuses on the acquisition, sharing, and updating of educational materials. Based on the current situation of the development of educational information, the development of information management system will be designed to provide educational information, disseminate information about confidential learning, improve the understanding and function of educational materials, and provide a system based on knowledge management. From the perspective of knowledge management, based on the concept of knowledge management, this article presents some ideas to create a curriculum. According to the relevant construction standards, a model of curriculum management information has been prepared. The goal is to maximize the effectiveness of the management of educational information, establish a basis for the use of all educational information, understand the quality and current nature of the information, improve educational materials, and do not publish information. The first concept of the research was to design and implement a comprehensive data management system to support the sharing of educational data, hidden resources, and other applicable issues. However, due to the level of knowledge and expertise of the author, it was not developed in practice, but only a model of curriculum management information management. Because of further improvement of the system, the author will continue to study them in the future and try to complete the system.

Data Availability

No data were used to support this study.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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References

[1] T. Thoyyibah, H. Leslie Hendric Spits Warnars, A. Trisetyarso, E. Abdurachman, F. Lumban Gaol, and B. Soewito, "Analysis of knowledge management system in grabb mobile application based on usability," *Journal of Physics: Conference Series*, vol. 1477, no. 2, Article ID 022030, 2020.

[2] Y. Ba and L. Qi, "Construction of wechat mobile teaching platform in the reform of physical education teaching strategy based on deep neural network," *Mobile Information Systems*, vol. 2021, no. 1, pp. 1–12, 2021.

[3] Z. J. Zhang and S. M. Jasimuddin, "A model-based analysis for mobile knowledge management in organizations," *Journal of Management Analytics*, vol. 2, no. 1, pp. 35–52, 2015.

[4] J. Abbas and M. Sagsan, "Impact of knowledge management practices on green innovation and corporate sustainable

development: a structural analysis," *Journal of Cleaner Production*, vol. 229, pp. 611–620, 2019.
[5] O. P. Obitade, "The mediating role of knowledge management and information systems selection management capability on big data analytics quality and firm performance," *Journal of Decision Systems*, no. 9, pp. 1–41, 2021.
[6] G. Roohi, G. Mahmoodi, H. Khoddam, and J. Midw, "Barriers and strategies for implementing knowledge in to health system management: a qualitative study," *Journal of Research Development in Nursing and Midwifery*, vol. 17, no. 2, pp. 36–41, 2020.
[7] X. Wang, "Strategy analysis of network information technology in college English micro-lesson teaching," *Advances in Higher Education*, vol. 4, no. 9, 2020.
[8] M. A. A. Saied, M. Wahba, A. W. Abdel-Bary, and A. N. Ghanem, "The impact of knowledge management on service quality: the mediating role of organization learning (applied study: alexandria water company)," *Open Access Library Journal*, vol. 8, no. 7, p. 15, 2021.
[9] T. Thoyyibah and A. T. Muharram, "The analysis knowledge management system of electronic government south tangerang based on usability evaluation using sumi (software usability measurement inventory)," *Data Science Journal of Computing and Applied Informatics*, vol. 4, no. 1, 2020.
[10] M. Elsharkawy and A. N. A. Masri, "A novel image encryption with deep learning model for secure content based image retrieval," *Journal of Cybersecurity and Information Management*, no. 2, pp. 54–64, 2019.
[11] J. Cao, E. M. van Veen, N. Peek, A. G. Renehan, and S. Ananiadou, "EPICURE: ensemble pretrained models for extracting cancer mutations from literature," in *Proceedings of the 2021 IEEE 34th International Symposium on Computer-Based Medical Systems (CBMS)*, pp. 461–467, IEEE, Manhattan, NY, USA, June, 2021.
[12] Y. Tan, "Digital media teaching reform and strategy research based on the combination of art and work," *Advances in Higher Education*, vol. 4, no. 9, 2020.
[13] P. Legrain, N. Gillet, C. Gernigon, and M. A. Lafreniere, "Integration of information and communication technology and pupils' motivation in a physical education setting," *Journal of Teaching in Physical Education*, vol. 34, no. 3, pp. 384–401, 2015.
[14] M. A. Lamia, S. H. Gawaher, H. Z. Abdel Nasser, G. S. Hussein, and A. N. H. Zaied, "A survey on sentiment analysis algorithms and techniques for Arabic textual data," *Fusion: Practice and Applications*, vol. 2, no. 2, pp. 74–87, 2020.
[15] J. Y. Cai, P. P. Zhang, and Zhang, "The support environment construction for teaching and research of physical education based on emerging information technology," *Journal of Computational and Theoretical Nanoscience*, vol. 14, no. 4, pp. 2015–2020, 2017.
[16] W. Chen, "Diversification of physical education teaching resources in universities under the background of computer information technology," *Journal of Physics: Conference Series*, vol. 1992, no. 4, Article ID 042026, 2021.
[17] N. Zhou, "Research on the innovative development of college physical education teaching mode under the environment of computer technology and network," *Journal of Physics: Conference Series*, vol. 1992, no. 2, Article ID 022121, 2021.
[18] P. Hou, S. Yu, and Y. Song, "Research on the information management of university stadiums based on digital twin technology," *Journal of Higher Education Research*, vol. 1, no. 3, 2020.
[19] S. Hafeld, "Informationstechnologie und digitalisierunginformation technology and digitalization," *Der MKG-Chirurg*, vol. 13, no. 4, pp. 237–239, 2020.
[20] R. Pahlawan and P. Widayat, "Business and risk aspects in the era of digital information technology university in pekanbaru," *IOP Conference Series: Earth and Environmental Science*, vol. 469, no. 1, Article ID 012117, 2020.
[21] M. Manacorda and A. Tesei, "Liberation technology: mobile phones and political mobilization in africa," *Econometrica*, vol. 88, no. 2, pp. 533–567, 2020.
[22] A. Ndumu, "Disrupting digital divide narratives: exploring the u.s. black diasporic immigrant context," *Open Information Science*, vol. 4, no. 1, pp. 75–84, 2020.
[23] X. Ren, C. Li, X. Ma et al., "Design of multi-information fusion based intelligent electrical fire detection system for green buildings," *Sustainability*, vol. 13, no. 6, p. 3405, 2021.
[24] J. Jayakumar, B. Nagaraj, S. Chacko, and P. Ajay, "Conceptual implementation of artificial intelligent based E-mobility controller in smart city environment," *Wireless Communications and Mobile Computing*, vol. 2021, pp. 1–8, 2021.
[25] X. Liu, C. Ma, and C. Yang, "Power station flue gas desulfurization system based on automatic online monitoring platform," *Journal of Digital Information Management*, vol. 13, no. 06, pp. 480–488, 2015.
[26] R. Huang, S. Zhang, W. Zhang, and X. Yang, "Progress of zinc oxide-based nanocomposites in the textile industry," *IET Collaborative Intelligent Manufacturing*, vol. 3, no. 3, pp. 281–289, 2021.
[27] Q. Zhang, "Relay vibration protection simulation experimental platform based on signal reconstruction of MATLAB software," *Nonlinear Engineering*, vol. 10, no. 1, pp. 461–468, 2021.