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Research Article

Construction of Multimedia Assisted Legal Classroom Teaching Model Based on Data Mining Algorithm

Yu Lu[1] **and Wang Lizhi**[2]

[1]*Faculty of Law, Changchun University of Finance and Economics, Changchun 130122, China*
[2]*School of Political Science and Law, Northeast Normal University, Changchun 130117, China*

Correspondence should be addressed to Wang Lizhi; wanglz275@nenu.edu.cn

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In order to quickly and accurately retrieve a required part from massive multimedia educational resources and improve the utilization of educational resources, a multimedia assisted legal classroom teaching model based on data mining algorithm is designed. Firstly, the attributes of multimedia assisted legal classroom teaching resources are judged, and the numerical resources are standardized and discretized. Then, the B+ tree is used to establish the model's indexes and index library, and the corresponding retrieval algorithm is designed to complete the resource search, establish the data distribution structure model of the multimedia assisted legal classroom teaching system, mine the data, reconstruct the phase space of the fused data information flow, extract the high-order moment features of the specific data in the multimedia assisted legal classroom teaching system in the reconstructed high-dimensional phase space, and realize the accurate mining of the feature data. The experimental results show that the teaching effect of the designed model has more advantages and can promote the improvement of students' performance.

1. Introduction

With the development of modern information technology, the use of multimedia technology to intuitively display legal practice problems in law classroom teaching has become a regular auxiliary means of law teaching in colleges and universities [1, 2]. Multimedia assisted law classroom teaching not only helps to increase the amount of information in law classroom teaching and improve the efficiency of teaching and learning, but also helps to change the traditional mode of law teaching emphasizing theory and neglecting practice, which plays an important role in promoting the reform of law classroom teaching.

However, in the process of applying multimedia technology to assist law teaching, there are also many problems, which affect the effect of multimedia assisted teaching and need to be improved [3, 4]. The traditional law classroom teaching model no longer meets the needs of modern teaching, and great changes have taken place in teaching and learning model. In law classroom teaching, the use of computer multimedia hardware has developed the teaching form of law learning [5]. Multimedia network technology shows the legal teaching content to students through text, image, sound, and other ways; enriches the legal teaching content; and can mobilize students' interest in learning law [6, 7]. Therefore, many scholars have carried out a lot of research on multimedia network assisted legal classroom learning and teaching methods, which makes people have a further understanding of multimedia assisted legal classroom learning and teaching methods. Chen [8] proposed the application of computer information technology in the reform of law classroom teaching methods, and by establishing a legal resource database, creating a virtual legal classroom, and making suggestions on the reform of legal education through electronic bulletin boards, we can strengthen the application of computer information technology in the teaching reform of law courses. However, this method is inefficient because it cannot quickly retrieve the required part from the massive multimedia educational resources. Reference

[9] proposes the introduction of classroom teaching methods of moral education and rule of law. According to different introduction media, teachers can adopt different introduction methods, such as video introduction, graphic introduction, and case introduction. Each introduction method pays attention to specific operation skills, which are student-centered and problem-oriented and can quickly guide students into the predetermined learning track. However, there are still some deficiencies, such as low utilization of educational resources and poor teaching effect. Further research is needed to improve the level of law classroom learning and teaching. Therefore, a multimedia assisted law classroom teaching model based on data mining algorithm is proposed. Data mining algorithm is a group of heuristics and calculations to create data mining model based on data. In order to build a multimedia assisted legal classroom teaching model, the algorithm will first analyze the data and find specific types of patterns and trends. The algorithm uses the results of this analysis to define the best parameters for creating and mining multimedia assisted legal classroom teaching model. These parameters are then applied to the entire data set to extract feasible patterns and detailed statistics, reconstruct the phase space of the fused data information flow, extract the high-order moment features of specific data in the multimedia assisted legal classroom teaching system from the reconstructed high-dimensional phase space, and realize the accurate mining of feature data. The research shows that the model has good teaching effect.

2. Multimedia Assisted Legal Classroom Teaching Resource B+ Tree Hierarchical Index

Index is an important part of relational database, as shown in Figure 1.

As can be seen from Figure 1, the index occupies a central position and plays an important role in the multimedia assisted legal classroom teaching resource database system. The role of index in multimedia assisted legal classroom teaching resource database is to quickly locate the resource data required by users from the resource database and achieve rapid acquisition [10]. The index establishment process is shown in Figure 2.

It can be seen from Figure 2 that the quality of database index establishment is related to the operation performance of the database. Therefore, using the B+ tree index structure, this paper establishes a hierarchical index model for multimedia assisted legal classroom teaching resources [11, 12]. B+ tree index has the advantages of lower disk reading and writing cost, more convenient data information traversal, more stable query efficiency, and less memory space.

2.1. Multimedia Assisted Legal Classroom Teaching Resource Attribute Judgment and Processing. Before giving the data to be indexed, it is necessary to judge the attributes of multimedia assisted legal classroom teaching resources. These

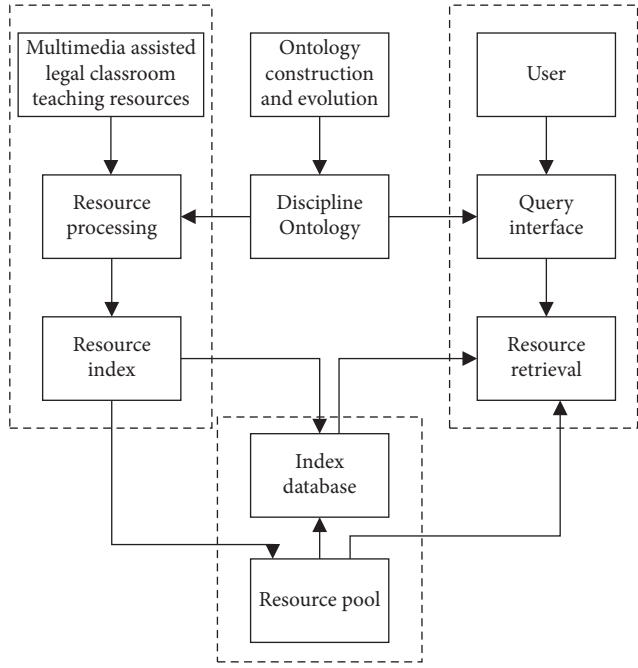

Figure 1: Multimedia assisted legal classroom teaching resource relational database system.

attributes specifically include value attribute, time attribute, and quasi-public goods attribute.

Value attribute: The development of multimedia assisted legal classroom teaching resources requires the builders to continuously study, research, collect, summarize, improve, practice, integrate the builders' high sense of responsibility and selfless professionalism, bring enlightenment to the majority of teachers and students, and obtain universal recognition. Therefore, the value attribute of multimedia assisted legal classroom teaching resources is obvious.

Time attribute: The time attribute of multimedia assisted legal classroom teaching resources includes long development cycle and more time. The resources developed in a specific time interval must be updated with the continuous development of social economy, new technologies emerging endlessly, and upgraded standards and specifications. In addition, the time attribute is also reflected in the effectiveness and quickness of teachers' and students' access to teaching resources.

Quasi-public goods attribute: The open sharing of multimedia assisted legal classroom teaching resources prevents mutual competition and exclusion among people. However, due to the high cost and limited number of multimedia assisted legal classroom teaching resources and the individualization of teaching in various colleges and universities, the sharing mechanism is not perfect. The attribute of quasi-public goods of multimedia assisted legal classroom teaching resources is more obvious, making it difficult to strictly comply with the nonexclusivity of public goods.

The function of judging attributes is to determine whether resources are character resources or numerical resources. The index forms of the two are different. The

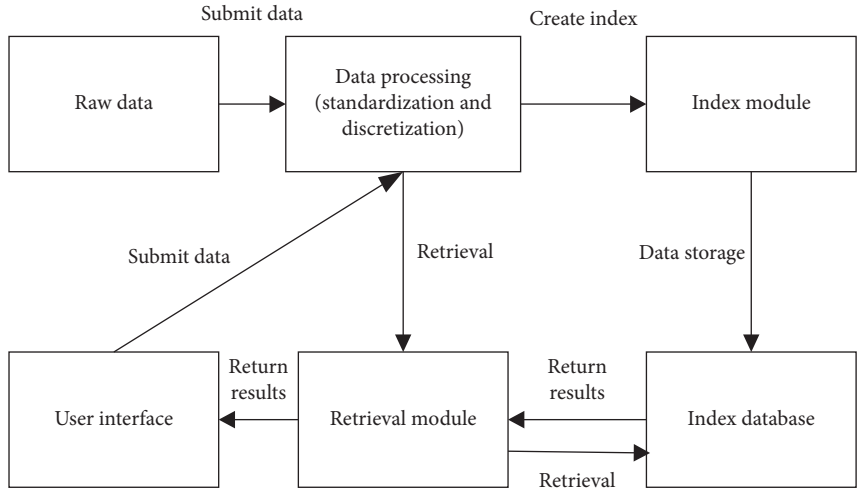

Figure 2: Database index establishment process.

former establishes inverted table index and the latter establishes B+ tree index [13]. The core of the attributes of multimedia assisted legal classroom teaching resources is the B+ tree index model. Therefore, only the subsequent processing of numerical resources is analyzed, including the standardization and discretization of numerical multimedia assisted legal classroom teaching resources [14, 15].

2.1.1. Standardization of Numerical Multimedia Assisted Legal Classroom Teaching Resources. Standardization refers to the form and dimension of statistical numerical multimedia assisted legal classroom teaching resources for subsequent processing and analysis. There are three main standardization methods:

(1) Standardization method

The sequence $\{x_1, x_2, ..., x_n\}$ is transformed to generate the new sequence $\{y_1, y_2, ..., y_n\} \in [0, 1]$.

$$y_i = \frac{x_i - \min_{1 \le j \le n} \{x_j\}}{\max_{1 \le j \le n} \{x_j\} - \min_{1 \le j \le n} \{x_j\}}. \quad (1)$$

(2) Formalization method

The sequence $\{x_1, x_2, ..., x_n\}$ is transformed to generate the new sequence $\{y_1, y_2, ..., y_n\}$. The mean value of the new sequence is 0, and the variance is 1.

$$y_i = \frac{x_i - \left(\sum_{i=1}^{n} x_i / n\right)}{\sqrt{\sum_{i=1}^{n} \left(x_i - \sum_{i=1}^{n} x_i / n\right)^2 / n - 1}}. \quad (2)$$

(3) Normalization method

The sequence $\{x_1, x_2, ..., x_n\}$ is transformed to generate the new sequence $\{y_1, y_2, ..., y_n\} \in [0, 1]$, and $\sum_{i=1}^{n} y_i = 1$.

$$y_i = \frac{x_i}{\sum_{i=1}^{n} x_i}. \quad (3)$$

2.1.2. Discretization of Numerical Multimedia Assisted Legal Classroom Teaching Resources. In order to easily extract the key information in the resources and establish the index, it is necessary to discretize the numerical multimedia assisted legal classroom teaching resources with continuous attributes [16, 17]. The basic process is as follows:

Step 1: Sort the continuous attribute values of multimedia assisted legal classroom teaching resources according to a specified rule.

Step 2: Preliminarily determine the division breakpoint of continuous attributes.

Step 3: Continue to split or merge breakpoints according to the given judgment criteria [18].

Step 4: Judge whether the number of breakpoints meets the number specified by the user. If yes, terminate the whole continuous attribute discretization process; otherwise, continue to follow the third step until the conditions are met.

At present, discretization is mainly divided into unsupervised discretization and supervised discretization, as shown in Table 1.

Among them, unsupervised discretization refers to the method that does not use class information and does not consider class attributes in the discretization process and whose input data set only contains the values of attributes to be discretized. Supervised discretization refers to the method of using class information in the discretization process. It can be seen from Table 1 that unsupervised discretization has the characteristics of simple method and easy operation, but it needs to manually specify the number of intervals. Supervised discretization does not need to specify the number of intervals artificially, but the operation is complex. The number of data types in the discrete set is the number of data discrete classes. As an effective data preprocessing method, the results of discretization have an essential impact on the results of data analysis. In data processing, discretization should be carried out according to the data characteristics. In discretization, different strategies such as static classification

Table 1: Discretization method.

Type	Definition	Characteristic	Specific representative method
Unsupervised discretization	A method that does not use class information in the discretization process	The method is simple and easy to operate, but it needs to specify the number of intervals artificially	Equal width box method Equal frequency box method String analysis method
Supervised discretization	A method that uses class information in the discretization process	There is no need to specify the number of intervals artificially, but the operation is complex	IR method Entropy based discretization method Discretization method based on chi square

or dynamic combination can be adopted. Reasonable strategies are helpful to effectively mine data characteristics.

2.2. Index and Its Database Creation. Based on the above processed data, research on index and database creation was conducted [19, 20]. The essence of an index is a special table or graph, which is composed of the key words of the index and the address where the key words are stored, and the index library is the collection of all indexes.

2.2.1. Index Creation. B+ tree is mainly used to index each multimedia assisted legal classroom teaching resource. B+ tree is developed on the basis of B-tree, and it solves the problem that B-tree cannot search in order. The comparison between B-tree and B+ tree is shown in Table 2.

Based on the basic structure of B+ tree, this paper constructs the index structure of multimedia assisted legal classroom teaching resources, including B+ tree skeleton construction, B+ tree loading, and B+ tree assignment, as follows.

Step 1: B+ tree skeleton. B+ tree is a typical tree structure, which is mainly composed of leaf nodes, branch nodes, and root nodes. Firstly, determine the parameters in the B+ tree index, including the number of layers of B+ tree, the number of subnodes of nodes in B+ tree, the number of nodes in B+ tree, the number of B+ leaf nodes, the number of (key, value) pairs in B+ leaf nodes, the number of B+ tree nodes, and node array. Then, the parent-child or sibling relationship between each node is established, and finally a complete B+ tree index framework is formed [21, 22].

Step 2: B+ tree loading. The previous step completes the association between the B+ tree nodes. In this step, each node in the B+ tree needs to be loaded with the corresponding multimedia assisted legal classroom teaching resource "key." The loading sequence is the same as the B+ tree skeleton creation sequence, from left to right and from bottom to top.

Step 3: B+ tree assignment. Assign the "key" of multimedia assisted legal classroom teaching resources value. The assignment is related to the position in the index and the sorting in later user retrieval.

2.2.2. Index Library Creation. If the indexes of each multimedia assisted legal classroom teaching resource are stored, it will occupy a lot of content space. Therefore, it is necessary to establish a comprehensive index library to collect these indexes [23–25]. A word table is saved for each different character in the index library, and the word table corresponding to each character contains all the positions of the character in the resource document. The word list is shown in Table 3.

2.3. Search Method. After the indexes and index database are established, a matching retrieval method is also needed to help users complete the retrieval. The retrieval process is as follows:

Step 1: Select the literature search tool and confirm the search field.

Step 2: The user inputs a search term or sentence.

Step 3: Process the search words or sentences, including query segmentation and keyword extraction. The former refers to dividing a search word sequence into several query blocks to judge the relationship between these blocks" for search engine analysis. Retrieval word segmentation methods mainly include word segmentation method based on preset dictionary, word segmentation method based on natural language understanding, and word segmentation method based on statistics [26]. The latter mainly extracts the most critical part from the divided query blocks, that is, the retrieval focus. This is directly related to the query accuracy.

The key query block extraction process is as follows: Based on the correlation between some statistical characteristics of words and long query sentences, the word block with the highest correlation is used as the query keyword [27, 28].

Step 4: Query extension. In Chinese, there are a large number of synonyms and polysemy words, which make a great difference between the user search words and the "key" words used in the multimedia assisted legal classroom teaching resource index. Here, the query expansion technology is used to solve the problem; that is, the computer is used to find the word blocks with similar meanings of key query blocks and then take

Table 2: Comparison of B-tree and B+ tree.

Indexes	B-tree	B+ tree
Difference	A leaf node does not contain any information and does not point to its sibling node	All leaf nodes contain the information of all keywords and pointers to the records containing these keywords, and the leaf nodes themselves are linked in order of the size of the keywords from small to large
Advantage	The efficiency of interpartition query is high, the space utilization is high, and the average time is small	The whole index tree structure has few layers and stable performance
Inferiority	The search range is limited	There is an additional burden of insertion and deletion, and the space utilization is low

Table 3: Word list.

Resources	Character
Of	P_{11} P_{12} P_{13}.....
No	P_{21} P_{22} P_{23}.....
:	:
In	P_{i1} P_{i2} P_{i3}.....
Number	P_{j1} P_{j2} P_{j3}.....

them as new query word blocks for information retrieval [29–31].

Step 5: The query word block is matched with the multimedia assisted legal classroom teaching resource index to realize information retrieval. The matching method is realized by similarity calculation. There are four similarity calculation methods: inner product measurement method, cosine measurement method, Jaccard measurement method, and Dice coefficient method.

2.4. Establishment of Data Distribution Structure Model of Multimedia Assisted Legal Classroom Teaching System. In order to realize the specific data mining in the multimedia assisted legal classroom teaching system, data structure analysis and data fusion preprocessing are needed first. The research object is the multimedia distance teaching system in the cross platform network environment. Based on the high-speed operation and data management results of the system users in all terminals and servers, the data structure in the model is analyzed [32]. Suppose v represents any node in the data perception layer of the multimedia assisted legal classroom teaching system in the model (i.e., $v \in V$), e represents any edge of the application business layer of the multimedia teaching system, and the specific data sources in the multimedia assisted legal classroom teaching system are distributed in the data management array of the system in the form of edge node [33, 34]. The node frame of data transmission is divided into $N \times N$ unit line array, and the channel bandwidth is $T_s = K_b T_f$. Suppose V_{M_j} represents the length of information flow vector in the database of embedded multimedia assisted legal classroom teaching system; $E\{[X - E(X)][Y - E(Y)]\}$ is the covariance of fuzzy classification random variables X and Y, recorded as $\mathrm{Cov}(X, Y)$; the attribute weights of the data storage model in the multimedia assisted legal classroom teaching system are adaptively learned; and the vector field X of specific data distribution in the database is constructed in the multilayer vector autoregressive feature space. In the multimedia assisted legal classroom teaching system, the local outliers will produce cross data sets through (4) to establish local outlier information flow model in specific data mining:

$$D_w(S) = \frac{\sum_{u,v \in S} V_{M_j}}{|S| \times (|S| - 1)/2}. \tag{4}$$

In the formula, $w_{u,v}$ represents the weight between nodes u and v in the network cluster of the multimedia assisted legal classroom teaching system, and $|S|$ refers to the number of intersection nodes of data characteristics in undirected graph S. Using the above outlier information flow model, this paper constructs a group of dense subgraphs with intersection, to reflect the characteristics of cross data sets in the multimedia assisted legal classroom teaching system, and extracts the time sequence of specific big data information flow in the multimedia assisted legal classroom teaching system. Assuming that y represents the fuzzy clustering center of the specific data feature vector of the multimedia assisted legal classroom teaching system, we use the fuzzy clustering center to classify the difference attributes of the specific data, and an undirected graph model $G = (V, E)$ of the data distribution structure in the multimedia assisted legal classroom teaching system under the cross platform network application support layer is established, that is, the data distribution structure diagram model of multimedia assisted legal classroom teaching system, as shown in Figure 3.

2.5. Data Mining Processing of Information. Based on the above data structure analysis, the scale affine transformation is used to mine the information. The specific steps are as follows:

The continuous wavelet transform is used to decompose the empirical modal features of the specific data distributed in the above model, and a set of two-dimensional functions representing the time scale a and time translation b of the internal details of the specific data in the multimedia assisted legal classroom teaching system are obtained; formula (5) is used to perform probabilistic feature decomposition of specific data in the teaching system on the two-dimensional projection plane. The decomposition formula is as follows:

$$b_j = r_k(v + 1) \times \mathrm{parity}(z). \tag{5}$$

It is assumed that $r_k(v + 1)$ is the nonlinear time series of specific data in the collected multimedia assisted legal

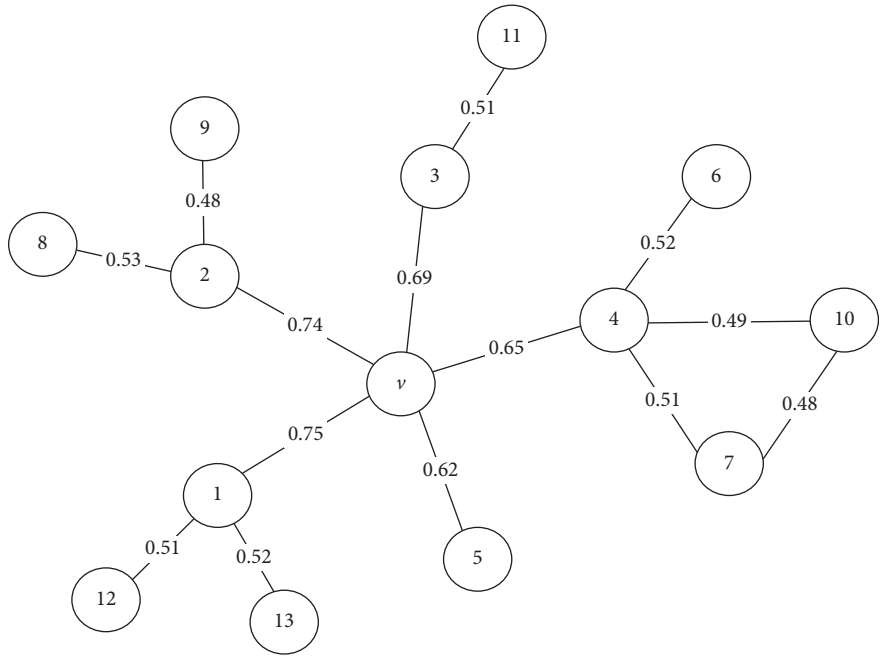

Figure 3: Data distribution structure model of multimedia assisted legal classroom teaching system.

classroom teaching system and that parity (z) represents the mother wavelet of data sampling. When the specific data $x(k) = s(k) + w(k)$ in the collected multimedia assisted legal classroom teaching system is a quasi-stationary random information flow, the edge subband level information of characteristic data distributed in the teaching system database is obtained by the following formula:

$$\Phi(\omega) = \int_{-\infty}^{+\infty} f(x) e^{(j\omega x)} \mathrm{d}x = \mathrm{parity}\left(q_p(z)\right) r_k(v+1). \tag{6}$$

According to the distribution probability of specific multimedia data, the data with large distribution probability is subject to scale affine transformation, and the information fusion model of data mining under limited signal-to-noise ratio is established:

$$\psi_{a,b}(t) = [U(a,b)\psi(t)] = \frac{1}{\sqrt{|a|}} \psi\left(\frac{t-b}{a}\right). \tag{7}$$

In the formula, $U(a,b)$ is the fractional Fourier transform of the time domain part of the specific data in the multimedia assisted legal classroom teaching system, and the factor $1/\sqrt{|a|}$ ensures the energy normalization of the fractional Fourier transform. Because the students' classroom learning behavior is most directly related to the learning effect, in this case, the relationship between the learning behavior of a certain type of students and the performance data of the test results is processed through information data mining, so as to provide data analysis and reference for teachers, so that teachers can understand the close relationship between students' learning habits and learning performance, fully understand the characteristics of individual students, and realize the information fusion of specific data in the multimedia assisted legal classroom teaching system through the above processing.

2.6. Implementation of Multimedia Assisted Legal Classroom Teaching Model. Based on the above analysis of the data distribution structure model of the multimedia assisted legal classroom teaching system and the data mining processing of information by scale affine transformation, an improved design of data mining algorithm is carried out, and accurate information feature extraction and mining are carried out for the specific key data in the multimedia teaching system [35], and the information compatibility and data access ability of multimedia assisted legal classroom teaching system can be improved. To realize the construction of multimedia assisted legal classroom teaching model, the implementation steps are as follows:

Assuming the specific data fusion optimal weight coefficient β and penalty factor C in the multimedia assisted legal classroom teaching system, we construct the specific data feedforward gain adjustment mean square deviation function by using the following formula:

$$F_{\mathrm{fitness}} = \frac{1}{m} \sum_{i=1}^{m} (\beta - C)^2. \tag{8}$$

The data management in the multimedia assisted legal classroom teaching system is realized through the distributed database model. A large amount of cloud data is integrated into the distributed database. It is necessary to use the feedforward gain to adjust the mean square deviation function to optimize the structure of the cloud data in the distributed database in the multimedia assisted legal classroom teaching system, so as to improve the accuracy and

efficiency of data information mining. The phase space reconstruction method of (8) is used to decompose the attenuation characteristics of high-frequency components of specific data stream information:

$$F(\tau) = b_k \times \phi \times x(t) \times F_{\text{fitness}}. \quad (9)$$

In the formula, τ represents the sampling delay of phase space reconstruction for a specific data information stream, b_k is the embedding dimension of phase space reconstruction, ϕ is the phase difference of sampling interval, and $x(t)$ is the spatial directivity gain adjustment coefficient. In the nonuniform sampling output results, it is assumed that $y(k)$ is the approximate statistical average of specific data in the multimedia assisted legal classroom teaching system obtained after multidimensional parameter mixed estimation. According to the invariant characteristics of Gaussian random linear separation of specific data [36], the invariant features of specific data are mined in the high-dimensional phase space to improve the frequency domain focusing ability of the signal. We use the above process to obtain the multimedia assisted legal classroom teaching model:

$$y(t) = x(t - t_0) \Rightarrow W_y(t, v) = W_x(t_0, v - v_0). \quad (10)$$

In the formula, $x(t)$ is the singular value decomposition result of the original data, t_0 is the initial sampling time point, $W_y(t, v)$ is the observation vector, v_0 is the power spectral density of the specific data, and v is the interference intensity of the data in the teaching system. The high-order moment characteristics of specific data in the multimedia assisted legal classroom teaching system can reflect the specific data characteristics to a great extent. Through the positioning of the high-order moment characteristics, the specific data mining in the multimedia assisted legal classroom teaching system can be realized, so as to complete the construction of the multimedia assisted legal classroom teaching model based on the data mining algorithm.

3. Experimental Analysis

In order to verify the effectiveness and feasibility of the multimedia assisted legal classroom teaching model based on data mining algorithm proposed in this paper, an experiment is carried out. During the experiment, MATLAB software is used as the experimental simulation software. The experimental topology is shown in Figure 4. Through the experiment, the results are as follows.

Taking the law classroom as an example, we select 2021 students majoring in law in a school as the experimental object, with a total of 240 students, and the number of students in each class is 40. Among these six classes, two classes adopt the proposed multimedia assisted legal classroom teaching model based on data mining algorithm, recorded as group A; two classes were recorded as group B by the method of [8]; and the other two classes were recorded as group C by the method of [9]. The proposed teaching mode of multimedia assisted legal classroom teaching model, based on data mining algorithm, is based on the data distribution structure model of the established multimedia assisted legal classroom teaching system. The teaching mode flow is shown in Figure 5.

According to the application of the teaching mode process of the model proposed in Figure 5, the majority of teachers have more modes to use for reference in teaching, so that the teaching theory can be applied quickly and successfully. On the other hand, learning, mastering, and applying the teaching mode enable teachers to learn, understand, and master the multimedia assisted legal classroom teaching theory. Teaching mode plays a bridge and link role between teaching theory and teaching practice. The research and application of teaching model process will help to change the separation between teaching theory and practice and promote the research of teaching theory.

The teaching materials used by the three groups of students are the same. The teaching places of the first two teaching methods are multimedia classrooms, and each student is equipped with a computer. In the process of law teaching, teachers grade each student through grading test.

Legal tests were conducted for the three groups of students. In the legal test part, the real questions of 2019 legal examination are selected as the midterm test questions, and the real questions of 2020 legal examination are selected as the final test questions. The total score of each set of test papers is set to 20 points. After marking the test paper, the scores of all students are input into the statistical software for statistical analysis, and the standard deviation of students' scores is calculated using the standard deviation calculation formula as follows:

$$s = \sqrt{\left(\frac{1}{n}\right)\left[(x_1 - \overline{x})^2 + (x_2 - \overline{x})^2 + \cdots + (x_n - \overline{x})^2\right]}. \quad (11)$$

In formula (1), s represents the standard deviation of student performance, n represents the number of subjects, $\overline{x}$ represents the average of student performance, and x_n represents the n student. Through statistical analysis and calculation, the test results are shown in Table 4.

As shown in Table 4, through statistical analysis, in the midterm test, the average scores of groups A, B, and C students in the legal test are 3.55, 3.53, and 3.53, respectively, and the standard deviations are 0.24, 0.28, and 0.23 respectively. Through statistical analysis, there is no significant difference among the three groups of students. In the final test, the average score of the legal test of group A students is 9.24, while the average score of the legal test of group B students is only 7.15. The average score of group A students is significantly higher than that of group B students. The average score of group C students was only 3.96, which was not significantly improved compared with the previous one. Through comparison, it is found that the scores of group A and group B students have improved after adopting two multimedia network law learning and teaching methods. However, the students who adopt the proposed multimedia assisted legal classroom teaching model based on data mining algorithm have made more obvious progress than those who adopt the methods of [8] and [9]. The experimental results show that compared with the other two legal learning teaching methods, the proposed model has more advantages in terms of teaching effect. The reason is that, by

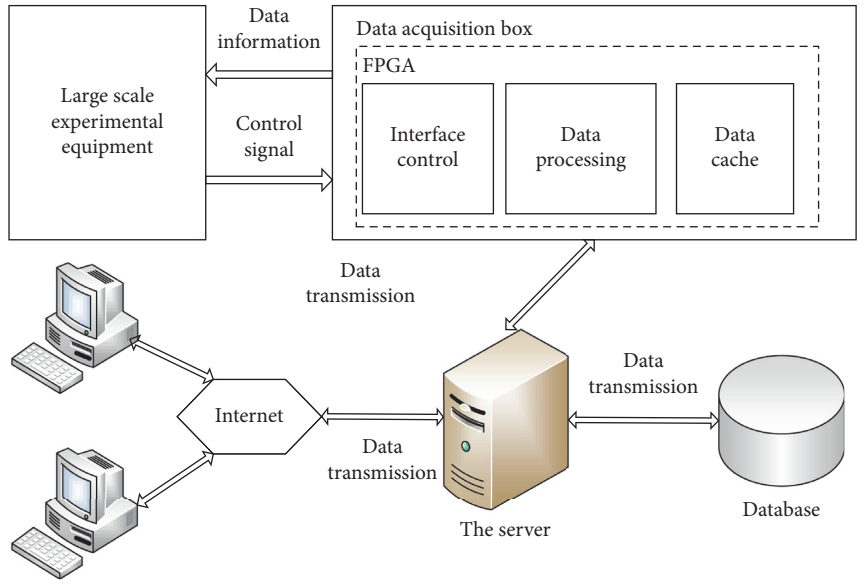

Figure 4: Experimental topology.

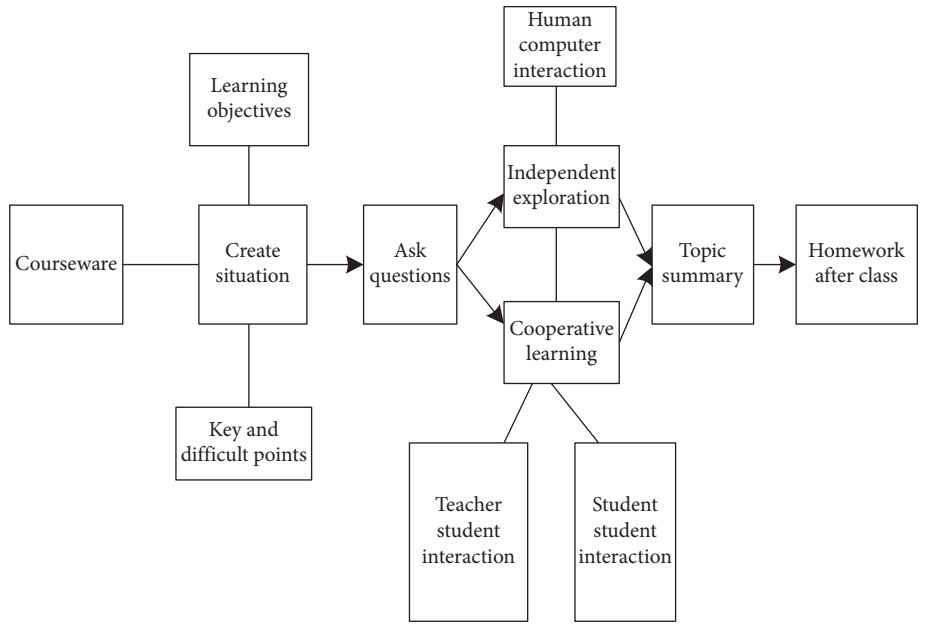

Figure 5: Flow chart of teaching mode of the proposed model.

Table 4: Test results of legal examination.

Law examination test	Student group	Average	Standard deviation
Interim test	Group A	3.55	0.24
	Group B	3.53	0.28
	Group C	3.53	0.23
Final test	Group A	9.24	0.28
	Group B	7.15	0.25
	Group C	3.96	0.24

focusing on the students themselves, it improves their legal learning effect and contributes to the improvement of students' performance.

In order to further verify the comprehensive effectiveness of the proposed multimedia assisted legal classroom teaching model, the experiment selects 30 law students (15 men and 15 women) with similar academic achievements in a university as the research object and makes an empirical analysis from the two aspects of students' learning efficiency and teaching quality.

The 30 students selected in the experiment use different multimedia assisted legal classroom teaching models to study the legal practice course. The experiment divides the 30 students into three groups, with five men and five women in each group. After the model learning, the students are tested in law, and the learning score is used to determine whether the

Table 5: Comparison results of teaching quality of different models.

Test object	Student test scores (points)		
	Proposed model	Reference [8] method	Reference [9] method
Male 1	98	87	78
Male 2	97	82	85
Male 3	89	91	89
Male 4	93	85	81
Male 5	92	83	87
Female 1	94	83	92
Female 2	93	82	87
Female 3	92	82	79
Female 4	94	83	80
Female 5	92	83	83

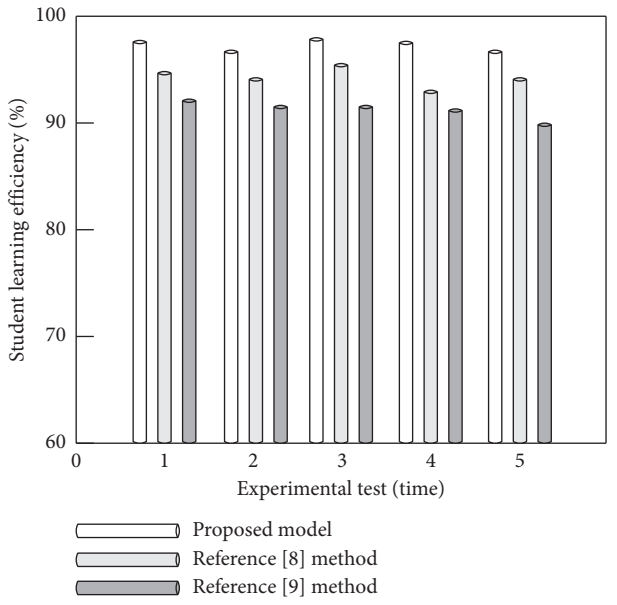

Figure 6: Comparison of students' learning efficiency of different models.

model can effectively improve the teaching quality, where 100–85 points mean excellent, 84–60 points mean qualified, and points below 60 mean a failure. The specific experimental comparison results are given in Table 5.

By analyzing the experimental data in Table 5, it can be seen that after the legal practice course teaching of the proposed model, the students' legal test scores are significantly higher than those of the other two methods, and all students' scores are excellent, which shows that the proposed model can obtain more ideal teaching quality. At the same time, in the process of practical research, the proposed model also effectively solves the problem of information loss of legal practice course and lays a solid foundation for further improving the teaching quality.

Because the teaching assistance effects of different multimedia assisted legal classroom teaching models are inconsistent, the experiment focuses on comparing the changes of students' learning efficiency after learning each multimedia assisted legal classroom teaching model. The specific experimental comparison results are shown in Figure 6.

By analyzing the experimental data in Figure 6, it can be seen that the students' learning efficiency of the proposed model is significantly higher than that of the other two methods, because the proposed model effectively solves the problem of information loss of legal practice course and ensures the integrity of teaching scheme, so as to improve students' learning efficiency.

To sum up, after adopting the multimedia assisted legal classroom teaching model based on data mining algorithm, the scores of group A and group B students have improved, and the scores of all students are excellent. The students' learning efficiency of the proposed model is significantly higher, indicating that the proposed model can obtain more ideal teaching quality.

4. Conclusion

(1) The students who use the multimedia assisted legal classroom teaching model based on data mining algorithm have more obvious progress than the students who use the literature method, and the teaching effect has more advantages, which can promote the improvement of students' grades.

(2) After teaching the legal practice course with the proposed model, all students have excellent grades, and the proposed model can obtain ideal teaching quality.

(3) Because the proposed model effectively solves the problem of information loss of legal practice course, ensures the integrity of teaching scheme, and achieves the purpose of improving students' learning efficiency, the students' learning efficiency of the proposed model is obviously higher.

Building a multimedia assisted legal classroom teaching model based on data mining algorithm can provide teaching information services for teachers and students. At the same time, using data mining algorithm to collect and analyze the behavior data of teachers and students can help to better find out the key materials affecting the practicability and expansibility of classroom teaching, better carry out multimedia assisted legal classroom teaching, promote the sound development of multimedia platform, contribute positive influence value to legal classroom teaching, and promote the

high-quality and high-level development of multimedia assisted legal classroom teaching.

Data Availability

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest

The authors declare that they have no conflicts of interest regarding this work.

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