Retraction

Retracted: Analysis and Application of Chinese Language and Literature Teaching Program Based on Computer Multimedia Technology

Advances in Multimedia

This article has been retracted by Hindawi, as publisher, following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of systematic manipulation of the publication and peer-review process. We cannot, therefore, vouch for the reliability or integrity of this article.

Please note that this notice is intended solely to alert readers that the peer-review process of this article has been compromised.

Wiley and Hindawi regret 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 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. Wu, "Analysis and Application of Chinese Language and Literature Teaching Program Based on Computer Multimedia Technology," *Advances in Multimedia*, vol. 2023, Article ID 2442445, 11 pages, 2023.

Hindawi

Research Article

Analysis and Application of Chinese Language and Literature Teaching Program Based on Computer Multimedia Technology

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With the rapid development of 5G network and information technology, the means of modern multimedia are becoming more and more perfect. Many enterprises and industry organizations have entered the information age, and the field of higher education cannot lag behind because of its practical importance of training talents. The major of Chinese language and literature has a great influence on the development of the country's soft power. The current teaching mode is backward and old-fashioned, paying more attention to the examination-oriented education of theoretical knowledge, and the practical training of comprehensive quality is still insufficient. This paper plans to design an intelligent classroom teaching system. Under the intelligent control of multimedia, the system can assist teachers to formulate flexible and rich teaching programs of Chinese language and literature. Finally, the weight distribution of the teaching evaluation system designed in this paper is reasonable, and the material library of the system is set up scientifically and comprehensively. After several groups of simulation verification, the improved teaching scheme helped the students who participated in the experiment to improve their academic performance by nearly 30 points. While maintaining the interest in Chinese language, the accuracy of spam article recognition algorithm is more than 85%, and the highest result can reach 94.5%.

1. Introduction

Chinese civilization has a history of thousands of years, showing continuous characteristics. Among them, Chinese language, as an important carrier of inheriting culture and knowledge, has obvious scientific attributes. As far as China's complex and diverse cultural customs are concerned, Chinese language is the key bridge of communication, and literature was born from precipitation, with a strong background of traditional culture. However, this kind of literature is destined to be not static. With the deepening of global economic and cultural exchanges, the inheritance and development of Chinese language and literature need to be updated and iterated with the times. In the process of formal teaching, teachers should abandon the original rigid and useless dross, keep the essence, cater to the international trend, and vigorously export Chinese literature. It is also necessary to take appropriate promotion measures according to actual abilities, so that the world can

feel the charm of Chinese language and culture. In addition, learners must try to solve the difficulties from the internal level, instead of taking them out of context or ignoring history and culture and superficially understanding and learning Chinese. In recent years, the vigorous development of science and technology has given birth to the application of new teaching. After the introduction of computer multimedia technology, the boring fragmented knowledge has become more systematic. According to the context of literature, it can also be cross-related with other disciplines, and the learning process will become lively and interesting while answering doubts. Combining high-quality learning resources such as words, images, and audio, linguistics and literature are closely linked. Teachers can design appropriate teaching programs according to students' characteristics to help learners understand knowledge flexibly. After the collation and induction of relevant literature, tracing back to the source, the following contents provide a solid theoretical support for the research ideas of this paper.

The innovative teaching practice in the new period enriches the ways for college students to obtain information and data and has an impact on Chinese language and literature in many aspects [1]. In order to realize the cultivation of applied talents, the reform of contemporary literature should be implemented in the teaching methods and means of courses [2]. Adopting diversified examination methods, this paper puts forward the thinking of curriculum reform of "multimedia technology" + "mode" [3]. SPOC-blended teaching mode is designed and analyzed by using MOOC resources [4]. Multimedia information technology can reform Chinese teaching [5] and has advantages in the teaching practice of Chinese language and literature [6]. Among them, the interaction between teachers and students in the smart classroom environment is the key point, which is helpful to promote the reform of teachers' classroom construction [7]. For the teaching situation in technical secondary school, information technology brings benefits to Chinese language and literature teaching [8]. According to the dual-channel deep memory network, the emotional tendency of students' evaluation of different teaching aspects can be effectively excavated [9]. According to the results of evaluation and analysis, the digital teaching scheme is improved to realize the teaching interaction of localized intelligent classroom [10]. From the perspective of intelligent campus, this paper studies the new development needs that need to be fully considered at the level of teaching application scenarios [11]. The construction of online experimental analysis system based on teaching behavior is more conducive to the improvement of teaching quality in order to improve the teaching guidance and feedback mechanism [12]. College teachers' teaching skills need to keep pace with the times and adapt to the new teaching requirements of "smart classroom" [13]. By using the methods of trend fitting and word cloud display, the data analysis and visual presentation of smart classroom are carried out to help teachers improve their teaching programs [14]. Currently, the role of teachers in the classroom is gradually changing, and it is necessary to analyze the teaching path at a higher level [15].

2. Related Theoretical Basis

2.1. Computer Multimedia Technology. Multimedia [16] can be integrated into a variety of media, with a minimum limit of two. The expression form of this media is computer binary (digital form), which can help information exchange and communication and provide human-computer interaction function. Multimedia technology is integrated into a large system through communication technology, so people can conveniently realize various operations if they query according to their needs. With the continuous innovation of the Internet, multimedia has made great efforts in the new information era of the 21st century and has gradually become the most indispensable computer technology in people's life, and continues to evolve into the most diverse and utilized tool. The competitive focus of each generation of electronic technology revolves around the development of multimedia. Through this technology, the functions of text, image, audio, and communication are successfully integrated, and information resources are integrated through global networking. Schools, small and medium-sized enterprises, and even the government have applied multimedia technology to improve work efficiency and save a lot of manpower and material resources. Multimedia and network structure are introduced into the original text to form hypermedia. Obviously, hypermedia is derived from hypertext. In the information browsing environment, hyperlinks are used to organize various media, combining multimedia and streaming media. It is a new form of traditional media through super-networking, and it belongs to a new media in the future, as shown in Figure 1.

In the field of education, multimedia computers can store, provide, and transmit different educational information for users from various channels. Teachers can skillfully use the system without too strong computer operation skills, and the daily teaching content is constantly updated with the development, which can enrich and broaden their horizons. Considering that the current devices need to have many advantages such as stability, low power consumption, scalability, and so on, computer multimedia devices need to meet the embedded trend. The Linux operating system with open-source features is adopted, and the interface is reserved to facilitate the subsequent upgrade and development work. This system can be transplanted to the "intelligent classroom" system smoothly. It is not only a controller that can control the audio-visual equipment in the classroom but also can judge the articles of Chinese language and literature major. Collect all the data records of the above functions, give the scores of teaching results according to the teaching evaluation mechanism, and finally provide some professional and reliable modification suggestions for teachers' teaching programs.

2.2. Information Theory in Machine Learning. Machine learning [17], ML, a multidomain interdisciplinary subject, covering a variety of complex knowledge algorithms, can help computers simulate human learning behavior. Research experts usually use this theory to explore the core of artificial intelligence, optimize or improve specific computer algorithms, and effectively improve the learning efficiency of machines and solve problems. In order to seek the intelligence of the system, the adaptive learning effect of the system is emphasized.

Information theory reasonably explains the problems in information transmission [18]. Its existence can infer the correctness of the communication process. Random process is understood as information sources and interference factors, and communication process refers to the behavior of transmitting information in this random environment. Information can remove uncertain substances, and the size of this substance can describe the amount of information.

Let a training set S have many features, having four sample types U_1, U_2, U_3, U_4, respectively, and take m values at feature A_k. $|S|$ represents the total number of examples; $|U_i|$ represents the number of examples of which type, and $i = 1, 2, 3, 4$. The probability of class U_i is expressed as
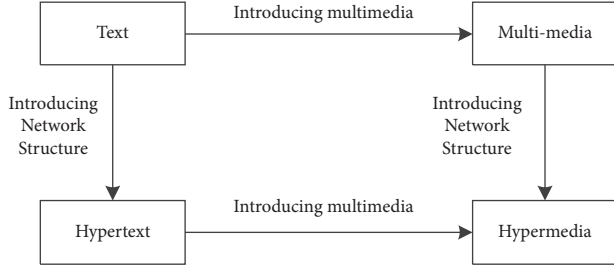
Figure 1: Hypermedia formation architecture diagram.

formula (1). Add the four types of probabilities, and the result is 1.

$$P(U_i) = \frac{|U_i|}{|S|}, \tag{1}$$

$$\sum_{i=1}^{4} P(U_i) = 1. \tag{2}$$

Let the set of examples where U_i takes value at feature A_k be X_{ij}, whose conditional probability is shown in the following formula:

$$P(V_j | U_i) = \frac{|X_{ij}|}{|U_i|}, \tag{3}$$

$$\sum_{j=1}^{m} P(V_j | U_i) = 1. \tag{4}$$

Formula (5) represents the probability of the example set F_i, and the sum of its m values is still 1.

$$P(V_j) = \frac{|F_j|}{|S|}, \tag{5}$$

$$\sum_{j=1}^{m} P(V_j) = 1. \tag{6}$$

By improving the conditional probability calculation formulas of the above two example sets, the probability of F_{ij}, an example set belonging to U_i class, can be obtained. Naturally, the probabilities of different classes are added to 1.

$$P(U_i | V_j) = \frac{|F_{ij}|}{|F_j|}, \tag{7}$$

$$\sum_{i=1}^{4} P(U_i | V_j) = 1.$$

The composition of message passing system is not complicated, including three parts: message source, message sink, and channel. Formula (8) represents the sample space of information. Formula (9) is a self-message which can reflect the randomness before the message is output.

Formula (10) defines the mathematical expression of information entropy, and the mathematical expectation value represents the average certainty before the source occurs. It should be understood that when the information entropy is 0, there is only one possibility. Self-information has the same probability, and the uncertainty of the system is the greatest.

$$[U, P] = \begin{bmatrix} U_1 & U_2 & \dots & U_q \\ P(U_1) & P(U_2) & \dots & P(U_q) \end{bmatrix}, \tag{8}$$

$$I(U_i) = \log \frac{1}{P(U_i)} = -\log P(U_i), \tag{9}$$

$$H(U) = \sum_i P(U_i) \log \frac{1}{P(U_i)} = -\sum_i P(U_i) \log P(U_i). \tag{10}$$

Information entropy is also called prior entropy [19]. When there is no noise interference in the process of information transmission, the output symbol corresponds to each input symbol, which eliminates the original uncertainty. However, in practice, it is difficult to achieve this ideal state, so posterior entropy is used to determine the average uncertainty after the output symbol is accepted.

$$H(U | V_j) = \sum_i P(U_i | V_j) \log \frac{1}{P(U_i | V_j)}. \tag{11}$$

Find the conditional entropy in symbol set.

$$H(U|V) = \sum_j P(V_j) \sum_i P(U_i | V_j) \log \frac{1}{P(U_i | V_j)}. \tag{12}$$

Finally, the formula for calculating mutual information is as follows:

$$H(U) = \sum_{i=1}^{4} P(U_i) \log \frac{1}{P(U_i)},$$

$$H(U|V) = \sum_{j=1}^{m} P(V_j) \sum_{i=1}^{4} P(U_i | V_j) \log \frac{1}{P(U_i | V_j)}. \tag{13}$$

2.3. Support Vector Machines. Support vector machine, "SVM," is a binary classification model [20]. This method originated from the research of statistics by scholars, and it is a machine learning method based on the principle of structural risk. In feature space, its basic model is essentially a linear classifier with maximum interval. In order to minimize the actual risk, support vector opportunity selects the appropriate function subset and its discriminant function and obtains the optimization algorithm to solve the convex quadratic programming problem.

Assuming that a training set is $D = \{(\overrightarrow{x}_i, y_i) | i = 1, 2, \ldots, l\}$, according to the basic idea of constructing hyperplane as decision plane, an optimal classification hyperplane $\overrightarrow{w} \cdot \overrightarrow{x} + b = 0$ is found. $\overrightarrow{x}_i \in R^n$ is the vector of the i-th sample; $y_i = \{+1, -1\}$ belongs to the category mark. When the value is 1, it represents a positive class, and the value of -1 means a negative class. $\overrightarrow{w} \cdot \overrightarrow{x}$ is the inner product of two normalized vectors.

$$
\begin{aligned}
\overrightarrow{w} \cdot \overrightarrow{x}_i + b \geq 1, \left\{ \forall \overrightarrow{x}_i \in y_i | y_i = 1 \right\}, \\
\overrightarrow{w} \cdot \overrightarrow{x}_i + b \leq 1, \left\{ \forall \overrightarrow{x}_i \in y_i | y_i = -1 \right\}.
\end{aligned} \tag{14}
$$

Considering the existence of indivisible approximate linear points in the training set, a nonnegative relaxation variable is introduced to repair it. After guaranteeing the existence of classification hyperplane, a quadratic programming problem is obtained, which is solved by dual form.

$$
\min \quad \frac{1}{2} \| \overrightarrow{w} \| + c \sum_{i=1}^{i} \xi_i
$$

$$
\text{s.t.} \, y_i \left(\overrightarrow{w} \cdot \overrightarrow{x}_i + b \right) \geq 1 - \xi_i, \xi_i \geq 1, 2, \ldots, l \tag{15}
$$

$$
\max_a W(a) = \text{Max} (\text{Min} \, \phi(\overrightarrow{w}, b, a)).
$$

After a series of Lagrange multiplier method [21] and partial derivative formula [22], the optimization problem and the decision function after solution can be obtained.

$$
\text{Max} \, W(a) = \max_a -\frac{1}{2} \sum_{i=1}^{i} \sum_{i=1}^{i} a_i a_j y_i y_j \overrightarrow{x}_i \overrightarrow{x}_j + \sum_{i=1}^{i} \alpha_i
$$

$$
\text{s.t.} \sum_{i=1}^{i} \alpha_i y_i = 0, 0 \leq \alpha_i \leq c, i = 1, 2, \ldots, l
$$

$$
f(\overrightarrow{x}) = \text{sgn} \left[\overrightarrow{w}^* \cdot \overrightarrow{x} + b^* \right] = \text{sgn} \left[\sum_{i=1}^{i} y_i a_i^* (\overrightarrow{x}, \overrightarrow{x}_i) + b^* \right]. \tag{16}
$$

Map the function to high-dimensional feature space [23].

$$
\overrightarrow{x}_i \longrightarrow \phi(\overrightarrow{x}_i), \quad i = 1, 2, \ldots, l. \tag{17}
$$

Kernel function can represent the inner product of two vector mappings. In daily learning, kernel functions with high frequency are used, as shown in Table 1.

$$
K(\overrightarrow{x}, \overrightarrow{x}_i) = \langle \phi(\overrightarrow{x}), \phi(\overrightarrow{x}_i) \rangle, \quad i = 1, 2, \ldots, l. \tag{18}
$$

Finally, after the transformation of the problem, the support vector machine obtains a classification decision function after obtaining the optimal solution nonlinearly.

$$
f(\overrightarrow{x}) = \text{sgn} \left[\sum_{i=1}^{i} y_i a_i^* K(\overrightarrow{x}, \overrightarrow{x}_i) + b^* \right]. \tag{19}
$$

Table 1: Common kernel functions.

Function name	Expression
Linear kernel function	$(x \cdot x')$
Polynomial kernel function [24]	$(x \cdot \overrightarrow{x}_i + 1)^d$
Radial basis kernel function	$\exp(-\rho \| \overrightarrow{x} - \overrightarrow{x}_i \|)$
Sigmoid kernel function [25]	$\tan h(b(\overrightarrow{x} \cdot \overrightarrow{x}_i) + c)$

3. Multimedia Intelligent Teaching Plan Improvement System

3.1. Establishment of Chinese Language and Literature Teaching Material Library. Because different schools have different intelligent degrees, the ideal degree of multimedia courseware resource development is different, the system content level is low, and the conditions are uneven. This brings great and small obstacles to teachers' literature teaching. Although there are many online teaching resources, they are also difficult to manage and utilize because of their different levels and attributes. The construction of excellent educational resources is the prerequisite for the success of this system. Therefore, we can concentrate the scattered knowledge of Chinese language and literature organically and form a standardized multimedia teaching material library. The whole library must have the function of dynamic updating, so that the documents, images, audio, and other resources related to Chinese language and literature can be updated to the latest version in time, thus avoiding the major mistakes of outdated data. In addition, the authenticity of the data on the network needs to be verified, and there can be no common sense errors and disciplinary errors, and there are materials that do not conform to educational standards and cannot be put into the material library. Once the examination and verification of material records is relaxed, teachers and learners will be deeply misled. The expert evaluation mechanism is specially introduced to serve the establishment of the system material library, and only the literary knowledge through this mechanism is qualified to enter the material library and be used by teachers. It is equivalent to a "filter," which screens out wrong or unreasonable knowledge according to the requirements of Chinese language and literature, which not only ensures the scientificity and authority of the material but also reduces the steps of calibrating the knowledge before calling the material library. Firstly, knowledge requirements are obtained from users and domain experts, and inference engine and interpretation mechanism are connected through man-machine interface. Then, knowledge is mined in knowledge base, database, and other places and transmitted to experts for knowledge evaluation, and only the optimized core knowledge is retained to the literary material base about Chinese language, as shown in Figure 2.

3.2. Scoring Mechanism of Chinese Language and Literature Teaching. Teachers impart knowledge and answer professional doubts. This process needs to face different value judgment elements, basically cover all levels and related links, and pay attention to the smooth realization of teaching
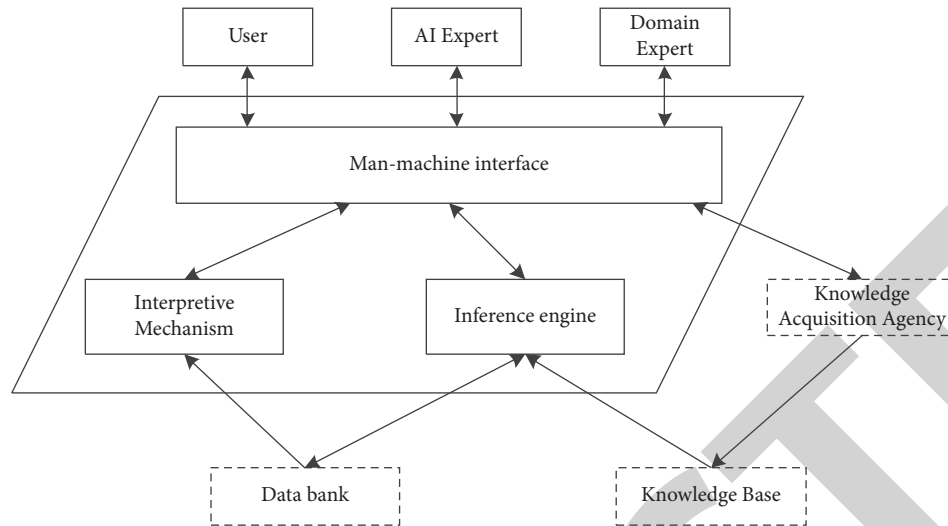
FIGURE 2: The process of teaching expert evaluation.

objectives. In different teaching stages, the teaching scheme of Chinese language and literature is evaluated pertinently. The existence of grading mechanism helps teachers find every deficiency in the teaching plan, understand where the details are defective, and correct the track of teaching activities. It provides information for the whole teaching process of Chinese language and literature, displays the scoring results intuitively and stereoscopically, and is more conducive to steadily regulating the teaching plan. After comprehensive consideration and theoretical verification, a teaching scoring system with the characteristics of this major has been introduced. The overall evaluation score is greater than 90 points, which indicates that the teaching scheme belongs to excellent level, and 70 points to 90 points indicate that the scheme is qualified and feasible, but it still needs further standardization and improvement. If the score is less than 70, it will be directly unqualified, and the teaching process needs to be rearranged, as shown in Table 2.

Students' learning effect needs to be tested, which is a very instructional function and the most important teaching program analysis index of this system. Because of the complexity and particularity of Chinese language and literature major, teachers cannot completely, objectively, and fairly test students' learning situation. It will take a lot of energy and time to test students' Chinese language and literature reserves one by one, and it is extremely difficult to explain the classroom effect. The best way is to carry out professional identification audit on students' articles to prove the logical structure and quality of articles. If it passes the systematic test, it proves that the article is not academic rubbish, and the students have good literary accomplishment. Text processing is regarded as the process of Chinese language and literature classification. Support vector machine is used to optimize parameters, and then sample feature selection is carried out to accurately identify valuable literary articles. Among them, TF-IDF is used to represent the weights of words, and then chi-square values are calculated to select literary features. Finally, the selected vector

space model is used to train support vector machine, and students' scores are obtained.

$$
\begin{aligned}
w_{ik} &= \frac{tf_{ik}}{\max\{tf_{ik}\}} \lg \frac{N}{df_k}, \\
x^2(\omega, c) &= \frac{N(A \times D - C \times D)^2}{(A+C) \times (B+D) \times (A+B) \times (C+D)}.
\end{aligned}
\tag{20}
$$

3.3. *Architecture Design of Multimedia System.* Chinese language and literature have multiple connotations, such as historicity, rigor, and classicality. How to make it more popular is a difficult problem of the times that modern scholars need to discuss together. In this section, the computer multimedia software and hardware are combined, the embedded Linux operating system is selected for design, and the information theory of machine learning is used to realize intelligent call. Systematic self-learning mechanism can smoothly optimize teachers' teaching strategies, which is more suitable for the general Chinese language and literature teaching process. The structure design of the system is called by the user program. The system uses the function library to call the interface and realizes the task processing and scheduling with the file subsystem, various devices, and process control subsystem, respectively. Finally, it carries out activities with the unique structure to control the underlying hardware, as shown in Figure 3.

The teaching scheme of Chinese language and literature is related to the success of the whole course, so it must be carefully designed. The goal of this paper is to intelligently adjust teaching strategies through computer technologies such as machine learning, hypermedia, and support vector machine. The function of multimedia system is designed to assist teachers' daily work and study. The whole multimedia system needs four infrastructures: audio playback, video monitoring, network equipment, and equipment display. Professional teachers visit the interactive interface and talk with the system and can operate nine multimedia functions

TABLE 2: Scoring standard of teaching scheme construction.

Scoring item	Evaluation connotation	Weight score
Teaching content	Multimedia materials, documents, question bank, courseware, network courses, test papers	0.2
Teaching effect	Students' achievements (including knowledge mastery and learning ability training), literature interest, and classroom activity	0.3
Teaching method	Classroom process optimization, computer multimedia assistance, and method flexibility	0.2
Teaching attitude	Teacher-student communication degree and teacher status	0.2
Teaching organization	Lesson preparation content, classroom induction, and classification of important and difficult points	0.1
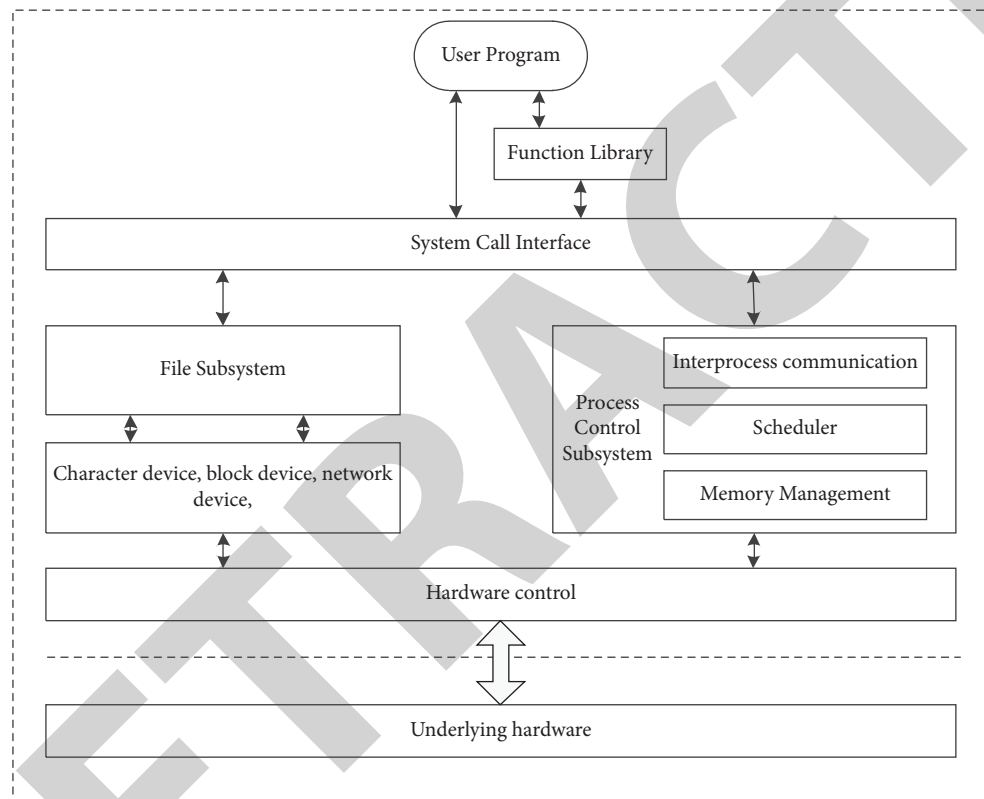
FIGURE 3: Multimedia system structure diagram.

to assist in preparing lessons, teaching, and answering. Finally, all the data of the course are summarized and the teaching plan is graded. After the system gives suggestions for improving the scheme, teachers can clearly and intuitively find out what should be paid attention to when imparting Chinese language and literature knowledge, as shown in Figure 4.

4. Simulation Experiment Analysis

4.1. Intelligent Algorithm Test

4.1.1. Self-Learning Algorithm. Computer multimedia-aided system has self-learning mechanism, which is the most basic algorithm to realize various functions. After the previous structural design, the computer has been endowed with learning ability like that of human beings and can make

some adaptive changes spontaneously, emphasizing the acquisition of solution knowledge in learning and having certain "artificial intelligence." As the subject of this paper is Chinese language and literature major, we choose example learning based on information theory to study self-learning mechanism. In order to further clarify the learning performance of self-revising teaching strategies and screening teaching contents, incremental training sets were selected in batches for comparative experiments. Under the guidance of experts, 25%, 50%, 75%, and 100% initial training sets were selected, and 10 self-training batches were deeply analyzed, as shown in Figure 5.

We can find that with the increasing proportion of test training sets, the performance of multimedia system is also increased, and the accuracy of the algorithm is maintained at a relatively stable level. In the 25% training set test group, the accurate value reaches 88.1% from the initial value of 78%,
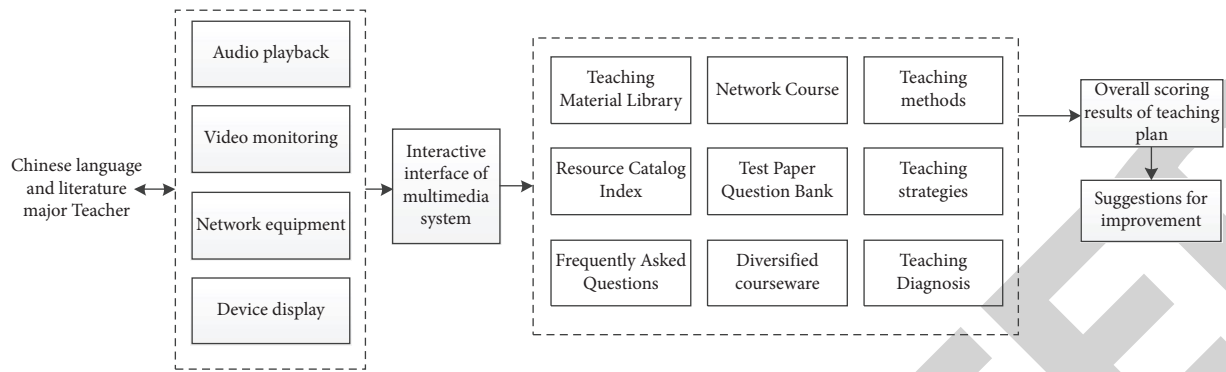
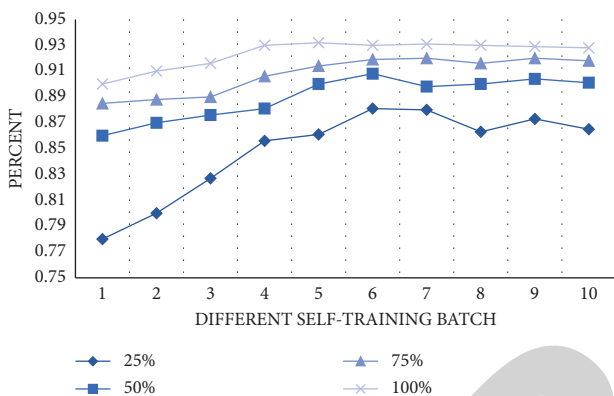FIGURE 4: Functional design of multimedia system.

FIGURE 5: Comparison of self-training performance under different batches.

which is greatly improved. However, from the curve in the figure, we can find that the fluctuation value of these 10 tests is large. The tests of the other three groups generally rose first and then fell, but the fluctuation range was small, generally between 1% and 3%. The experimental results show that the self-training algorithm in this paper has good learning performance, which can reach 93.2%.

4.1.2. Article Recognition Algorithm. One of the biggest features of this system is that it can judge whether students' Chinese language and literature works are rubbish articles according to their literary characteristics. Students are required to correct their academic attitude when creating, not to deviate from the scope of knowledge, and to show their literary quality and ideological direction. The experiment in this section selects three articles, which are coded as $A1$, $A2$, and $A3$, and six literary features $M1$ to $M6$. According to the column chart, we can find that the accuracy of recognition algorithms is above 85%, and the highest result can reach 94.5%. Among them, $M1$, $M2$, $M3$, and $M5$ features of $A2$ works are all over 90%, and the knowledge content is high, as shown in Figure 6.

4.2. Computer Multimedia Application Effect

4.2.1. Functional Test of Multimedia System. Multimedia systems need to support data from various sources, formats,

and types. Its development core is not only the internal structure and various codes of software applications. In addition to the main configuration of the computer, external hardware devices are also required to provide the basis for functional realization. The audio, network, and display functions of the system are tested to ensure that these devices can normally meet the use requirements. In addition, when the system interacts with people, teachers' experience should be improved and optimized. Therefore, the tests of link jump, database resources, security level, and peak visit value are added. Select $C1$, $C2$, and $C3$ Chinese language and literature classroom scenes and evaluate different levels. 0 means that the test is basically qualified, but there are still many defects; 1 stands for good, and some minor mistakes need to be fixed; 2 means that the operation is perfect and has met the requirements. The function of this system is perfect, and the research of database and peak value should further correct the problems and improve the running efficiency of the algorithm, as shown in Figure 7.

4.2.2. Comparison of Teaching Scoring Mechanism. The teaching behavior and learning behavior of Chinese language and literature are not a single expression but usually composed of various teaching behaviors. Each evaluation index has different connotations and different classroom needs, so it is necessary to assign values to teaching scoring indexes and determine their respective weights. Specifically, according to the five items of Chinese language and literature teaching scoring system, this paper compares this method with quantitative evaluation and executive evaluation and discusses the rationality of the overall results assisted by multimedia. Observe the following column chart distribution. The first method tends to be measured by data and pays more attention to content design. The weight ratio of teaching content and effect is as high as 0.4 and 0.35, respectively, and the sum of the other three items is only 0.25. The second teaching evaluation method mainly explains the nature and function of each item, and the weight distribution is uniform. However, the method in this paper focuses on the effect after class, which can easily include the evaluation of "quantity and quality." Among them, the maximum value of teaching effect can reach 0.3, and the weight of teaching organization is only 0.1, as shown in Figures 8 and 9.
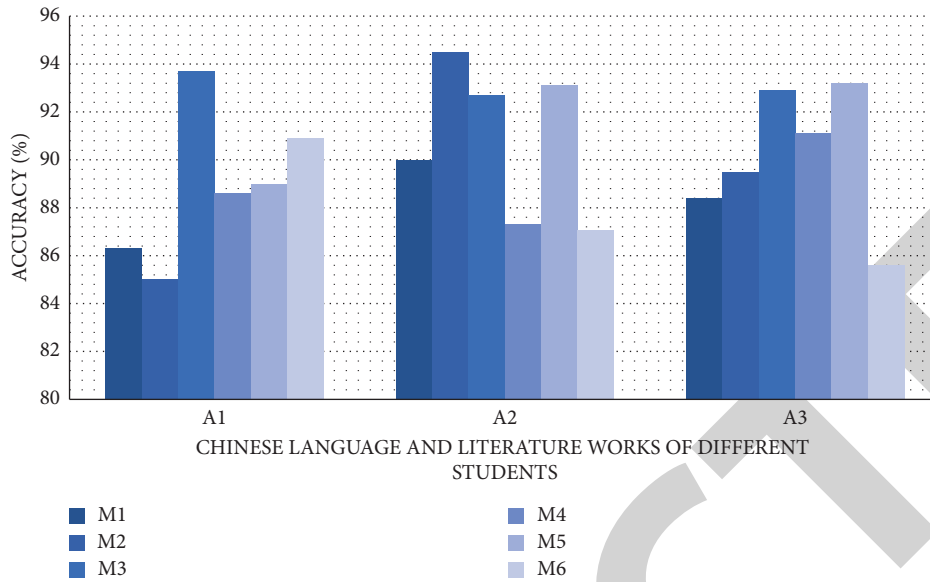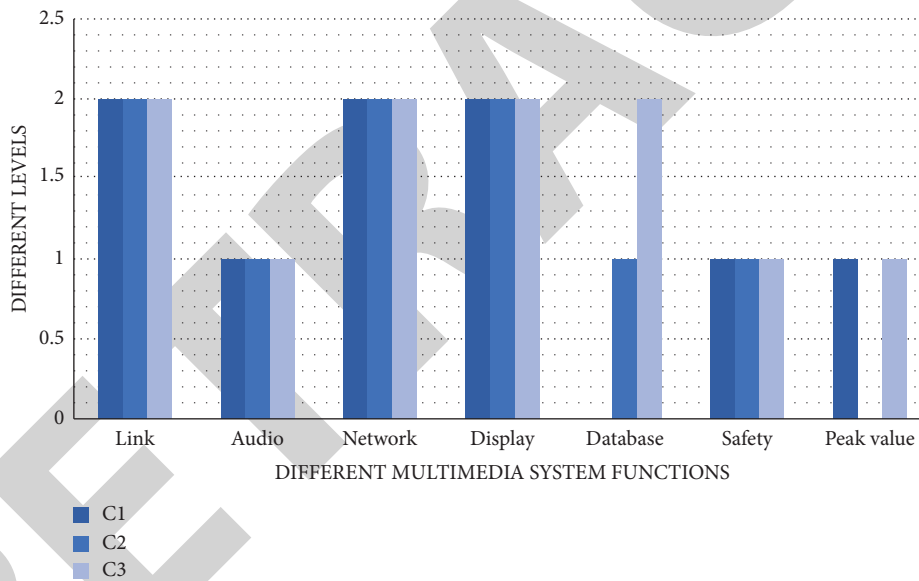
Figure 6: Recognition of students' articles.

Figure 7: Multimedia functionality testing.

4.3. Analysis of Teaching Scheme Improvement

4.3.1. Display of Teaching Program Results. Three students majoring in Chinese language and literature, A, B and C, were invited to participate in the experiment voluntarily, to effectively test the students' mastery of Chinese language and literature and their interest in learning literature. Among them, $A1$, $B1$, and $C1$ represent the comparative experimental group, describing the data of students before participating in multimedia teaching class; $A2$, $B2$, and $C2$ are the results of participating in the corrected teaching class. Through the rising trend of the curve, this multimedia system can improve students' interest and knowledge of Chinese language, and everyone's academic performance

has increased by 10 to 30 points. The results show that the improved teaching scheme has a good effect, which can improve the students of this major very quickly and reduce the teaching tasks of teachers, as shown in Figure 10.

4.3.2. Improved Proposal. We invited three teachers of Chinese language and literature major in a school to use this system to improve the statistical data after teaching for one month. The comprehensive classroom quality of the three teachers is 80 points, 84 points, and 87 points, respectively, reaching the excellent teaching level. Every teacher can clearly understand the learning progress, knowledge accuracy, and classroom complexity by combining his/her own
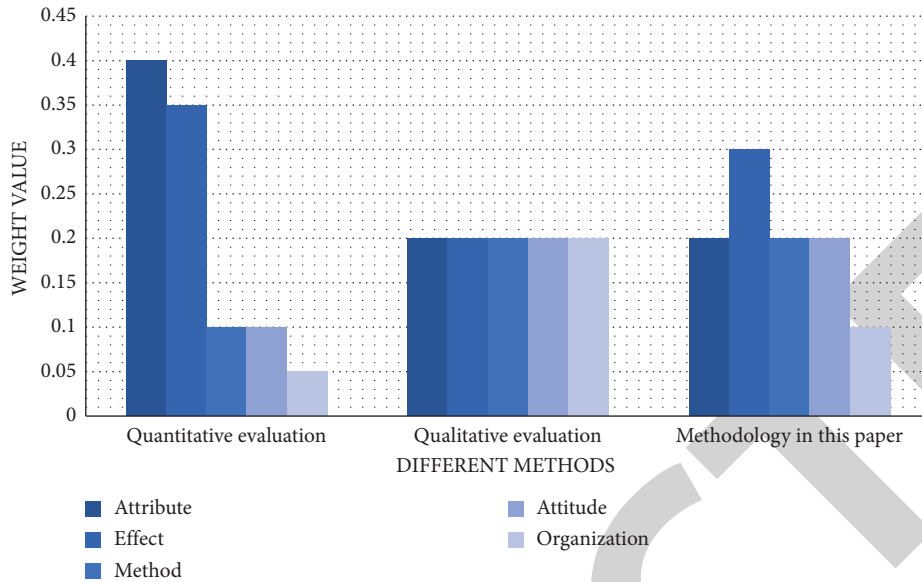
FIGURE 8: Scoring weights under different methods.
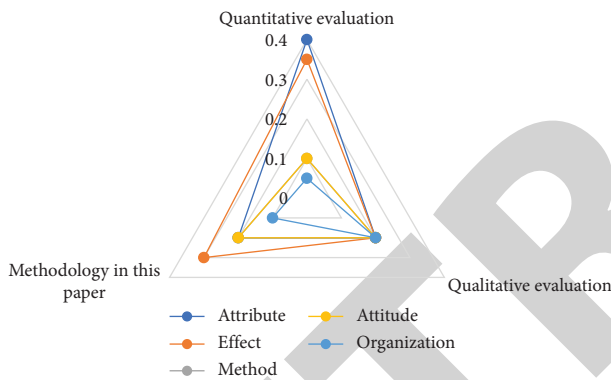

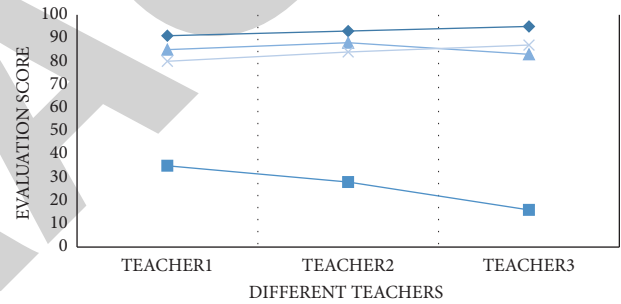FIGURE 9: Radar diagram of weight distribution.

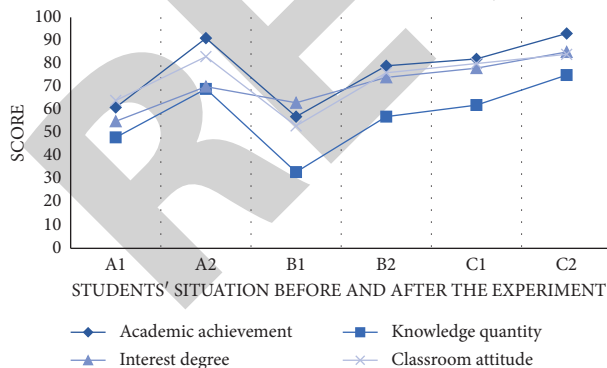FIGURE 11: Improvement effect of teaching quality.

FIGURE 10: Test data of 3 students.

observation. It can analyze the teaching plan anytime and anywhere and dynamically adjust the teaching state, which has a remarkable effect on the degree of help to teachers, as shown in Figure 11.

5. Summary and Prospect

Chinese language education is the foundation of knowledge education of various disciplines in China, and it undertakes the media functions of transmitting, analyzing, and innovating various information. If language is isolated from the social environment, the teaching research divorced from reality is doomed to fail to keep up with the development of the times and cannot meet the requirements of multidisciplinary knowledge integration. In order to correctly treat and solve the problems existing in the traditional teaching mode of Chinese language and literature major and solve the needs of improving the daily teaching quality, the process of imparting literary knowledge needs great reform and innovation, optimizing the information software and hardware conditions of computers and realizing the fair distribution of Chinese language resources to a great extent. The emergence of multimedia technology in the new era can simplify the redundant workload of colleges and universities and

eliminate the boredom of traditional teaching. The intelligent Chinese language teaching scheme improvement system designed in this paper aims to overcome compatibility and reliability and smoothly match and cooperate with the original system in colleges and universities. Through the network function of the computer, the interactive multimedia teaching data information can be easily obtained, and the cost of information investment can be reduced. Teachers are no longer limited by the original time, funds, and regions and do not need to spend a lot of time familiarizing themselves with multimedia operation, debugging, and maintenance training, so they can share abundant Chinese language and literature courses and resources on the Internet. In the whole literature education, teachers can systematically understand students' learning characteristics, personal characteristics, and learning needs and adjust the teaching progress of this major. The efficient use of computer multimedia can not only convey rich language and culture to students from shallow to deep, but also break through the key points of learning and lay a solid literary foundation for later learning.

After systematic adjustment, the teaching scheme makes the whole Chinese language and literature system more standardized and rigorous, which is convenient for learners to understand and master the essence easily. In the actual process of imparting knowledge, although this system model improves the application of teaching content, methods, resources, interaction, evaluation, etc., there are still some details that need to be solved or improved in this experiment. It is worth paying special attention to the fact that dazzling multimedia means also have interference factors that reduce students' classroom concentration, and teachers have a high probability that it is difficult to guide students to learn step by step. Therefore, while using relevant technologies, teachers should scientifically construct the sequence of knowledge links and distinguish the relationship between technology as a supplement and education as the mainstay. In addition, the evaluation index description of this system is not detailed enough and needs further refinement. Multimedia material template library should enhance the function of search engine and further automatically expand effective language teaching resources. In order to enhance the practicability of the system, we can try to add the matching mobile APP and the pronunciation error correction function of Chinese language and literature to realize the continuous dynamic scoring of articles.

Data Availability

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

Conflicts of Interest

The author declares that there are no conflicts of interest.

References

[1] X. Jin, "Innovative practice of Chinese language and literature teaching in colleges and universities in the new period," *Journal of Nuclear Agronomy*, vol. 35, no. 2, p. 2, 2021.

[2] Y. Li, "Research on contemporary literature teaching reform based on the cultivation of applied talents," *Education Informatization Forum*, vol. 5, no. 8, p. 2, 2021.

[3] C. Chen and T. Gao, "Thoughts on the reform of "Multimedia Technology +" course for applied undergraduates," *Computer Knowledge and Technology: Academic Edition*, vol. 17, no. 35, p. 3, 2021.

[4] H. Wang, C. Yan, and X. Wu, "Research and practice of SPOC mixed teaching mode--taking computer multimedia technology as an example," *Journal of Jilin Institute of Education*, vol. 34, no. 2, p. 3, 2018.

[5] Z. Li, "On the reform direction of Chinese language and literature teaching," *Speed Reading*, vol. 16, no. 3, p. 141, 2017.

[6] C. Lu, "Practical research on multimedia-assisted Chinese language and literature teaching," *Knowledge Library*, vol. 569, no. 24, p. 23, 2018.

[7] Y. Shi, C. Peng, and J. Zhang, "Analysis of interactive behavior between teachers and students in colleges and universities under smart classroom environment," *Modern Educational Technology*, vol. 29, no. 1, p. 7, 2019.

[8] D. Mao, "On the application of information technology in Chinese language and literature major in technical secondary schools," *Business Inform*, vol. 359, no. 16, p. 244, 2018.

[9] B. Wang, Y. Xiong, and Y. Yao, "Emotional analysis of students' teaching evaluation based on deep learning," *Audiovisual Education Research*, vol. 42, no. 4, p. 7, 2021.

[10] S. Wang and P. Mao, "Practical research on intelligent classroom interactive teaching system based on digital teaching plan," *Teaching Monthly (Middle School Edition)*, vol. 14, no. 8, pp. 51–55, 2014.

[11] T. Guo and X. Peng, "Analysis of artificial intelligence teaching from the perspective of intelligent campus," *Heilongjiang Science*, vol. 12, no. 19, p. 2, 2021.

[12] X. Wang and L. Zheng, "Behavior analysis of online experimental teaching of artificial intelligence empowerment," *Journal of Electrical and Electronic Teaching*, vol. 43, no. 3, p. 9, 2021.

[13] G. Zhang, "Research on the improvement and effectiveness of college teachers' teaching skills based on smart classroom," *Science and Technology Innovation Herald*, vol. 16, no. 14, p. 2, 2019.

[14] Y. Zheng and Y. Zheng, "System design of intelligent classroom implementation scheme-taking statistics and machine learning as an example," *Journal of Tongling University*, vol. 18, no. 6, p. 5, 2019.

[15] W. Zhou, "Path analysis of teachers' role transformation in "smart classroom" teaching," *Digital Users*, vol. 25, no. 27, p. 210, 2019.

[16] H. Bai and Z. Li, "Preliminary study on the aided teaching scheme of intelligent classroom measurement programming," *Digital Design*, vol. 34, no. 10, 2019.

[17] N. H. Liu, "Program and methods in the teaching of Chinese grammar," *Journal of the Faculty of Foreign Studies Aichi Prefectural University Language & Literature*, vol. 42, pp. 305–323, 2010.

[18] J. Zhang, C. Wang, A. Muthu, and V. Varatharaju, "Computer multimedia assisted language and literature teaching using Heuristic hidden Markov model and statistical language model," *Computers & Electrical Engineering*, vol. 98, Article ID 107715, 2022.

[19] Y. Jiang and Y. Guo, "Analysis and application of computer aided mode in teaching Chinese as a foreign language for science and engineering universities," *Boletin Tecnico/Technical Bulletin*, vol. 55, no. 19, pp. 70–76, 2017.

[20] X. Shi and L. Geng, "The application of computer technology in Chinese language and literature teaching," *Agro Food Industry Hi-Tech*, vol. 28, no. 1, pp. 1147–1151, 2017.

[21] L. Guan, "Research on the optimization of Chinese language and literacy teaching based on big data and modern educational thought," *Revista de la Facultad de Ingenieria*, vol. 32, no. 9, pp. 323–328, 2017.

[22] Y. Deng, "RETRACTED: a brief analysis of the reform of British and American literature education mode based on artificial intelligence," *Journal of Physics: Conference Series*, vol. 1992, no. 3, Article ID 32089, 2021.

[23] U. Balaman, M. Dooly, and T. Jakonen, "Interactional practices in technology-rich L2 environments in and beyond the physical borders of the classroom," *Classroom Discourse*, vol. 13, no. 2, pp. 111–118, 2022.

[24] Y. Cao, Z. M. AlKubaisy, J. Stojanović et al., "Appraisal of information and communications technologies on the teaching process by neuro fuzzy logic," *Computer Applications in Engineering Education*, vol. 30, no. 3, pp. 779–802, 2022.

[25] A. Liu and D. Kong, "Research on the teaching mode of college English based on artificial intelligence," *Journal of Physics: Conference Series*, vol. 1848, no. 1, Article ID 012117, 2021.