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Research Article

Research on the Application of Information-Based Big Data Fusion Technology in College English Education Design

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English is the most widely used language in the world, and China's economic development has become the second largest country in the world. Therefore, popularizing English in China is the need of national conditions and the desire for talents who are good at English majors. In the current traditional college English education mode and in the external environment, college students' English knowledge has not been substantially expanded, which has seriously caused the social needs not being met and students not being able to show their self-worth. Based on the deficiency of traditional college English teaching mode, this paper designs an efficient and perfect college English education mode by combining information big data fusion technology, so as to ensure that students can really love English and learn English more easily. The results of the experiment are as follows: (1) college English education and students' English learning are analyzed, and the research direction of the experiment is approved, and the functional has been investigated, which lays a foundation for the experimental research of this paper; (2) old-fashioned college English education mode: intelligent big data technology is applied to English education. By using the information big data fusion algorithm to ensure the qualified English teaching effect, it not only helps teachers effectively combine big data resources but also changes the atmosphere of teaching classes, constructs modern language education mode, and promotes students' thinking mode of exploring language learning.

1. Introduction

In this paper, an association rule discovery method based on evolutionary technology is proposed to obtain the relationship between related time series. Therefore, people have designed the algorithm idea of intelligent big data to maintain the duration of the experiment, and it does not contain scattered attributes, nor does it allow the superposition of time. The design idea is verified according to the experimental design [1]. While big data brings convenience to people, it also produces a large number of problems. One drawback of the old-fashioned intelligent data computing is that it cannot agree to calculate and classify a large number of complex data, and it is impossible to calculate some irregular big data statistics in some intelligent data processing methods nowadays. Therefore, it is necessary to study new processing methods to estab-

lish the results of the experiment. In practical applications, the DEA-RBF model has been widely concerned because of its simplicity and ease of use. Put forward the joint prediction method of DEA and RBF, preprocess the big data through DEA, screen out the effective date, and then build the model with RBF and compare and analyze the smart data sensitivity that cannot be calculated and analyzed [2]. To settle data harmonization problems in intelligent big data technology, this paper designs a data harmonization model about network informatization. The data coordination agreement of intelligent data includes four aspects: information perception level, feature clustering level, and decision fusion level. The organizations in the alliance are defined as sensors that sense and obtain information and cluster the features. Finally, there is development of innovation alliance technology based on fusion algorithm and the integrity and comprehensiveness of

intelligent data technology. When the model is applied to the study of economic information forecasting, the accuracy of the fusion result is higher than that of the single source fusion result, and the error is also small, MPE is more than 5%; the experimental data show that the intelligent big data combination method is efficient and authentic, which lays a foundation for the research direction of this paper [3]. The intelligent data combination has brought the possibility of its application in the field of education, thus improving the quality of teaching, which has been confirmed by domestic and foreign literature. Based on the extensive investigation of online language learning, this paper designs and implements a new teaching model supported by campus network and the Internet for the purpose of promoting personalized learning. The experimental research lasting one academic year shows that the new model is effective. Finally, this paper hopes that the new model can be implemented and studied by all parties, so as to further improve it and make greater contributions to the national optimization of college education mode in the new century [4]. College English reading is an effective means of English learning. However, at present, most college English reading and learning platforms only put different English books on the platform in electronic form for students to read, which lead to blindness in reading. Based on the artificial intelligence algorithm, according to the needs of college English reading and learning management, this paper constructs the model function module and realizes the system function based on the artificial intelligence algorithm. In addition, according to the above personalized learning model design principles, the system is student-centered and combines the knowledge provided by teachers with students' own experience to help them better complete the processing and understanding of new information. The experiment shows that the system has an obvious effect on improving college students' autonomous learning ability. In addition, this paper also verifies and analyzes the performance of the model. The research results prove the validity of the model [5]. Today, with the Internet and intelligent data, business English teaching reform has brought about the promotion and provision of the development direction. Network-assisted English teaching has irreplaceable advantages in many aspects. It complements and balances with traditional teaching methods and plays a role that traditional teaching does not have in business English teaching. Based on the characteristics and functions of Internet-supporting business English teaching, this paper explores the network-assisted business English teaching mode for college English majors [6]. The theme of this experimental research is to combine intelligent data technology with intelligent education to create digital education and to extract and classify the characteristics of educational achievements. Through the extraction and digital analysis of the experimental results, the research mode is optimized according to the shortcomings of the experimental results. This study uses phenomenological method to determine the concept of intelligent data design under the technical background of intelligent data; the focus of

research is to evaluate and analyze the factors existing in the experimental process [7]. At the beginning of this new century, design and technology educators are facing a serious dilemma: practicing the traditional design and technology model, which has consumed the supporters of Canada, Britain, Germany, and the United States, or the model design of sustainable lifestyle. Our traditional design, problem-solving, and technical methods embody a free political ecology. In fact, these methods—our practice—are unsustainable. Taking the political ecology of Nike shoes as an example, I describe ecological footprint, resource flow, and awakening as effective metaphors for sustainable practice. Contrary to the technology-centered approach, I advocate modeling the ecocentric process rooted in political ecology and cultural studies. Focusing on the political ecology of design and technology means reshaping the design of lifestyle in our practice and reducing production and consumption [8]. In recent years, with the rapid development of China's economy and the increasing improvement of people's living standards, building energy consumption has accounted for 46.1% of the total social energy consumption. One of the main ways to save resources during construction, and it is also a major measure to implement, is "rejuvenating the country through science and education" and building an energy-saving society. However, the current situation of building energy conservation in China is not optimistic. China urgently needs to find ways to save energy conservation. Based on Ecotect software, the experiment explained data of natural characteristics from the perspective of the use of existing buildings. By taking the user buildings in a certain area as the research object, the influence of local natural environmental factors and the destruction of human factors is mainly investigated. In order to increase reconstruction buildings, the demand analysis and the structural mode of buildings are designed. Through the application of Ecotect, designers can fully consider the effective energy-saving mode at the early stage of design. The research results of this paper have certain reference value for building energy conservation and creating a comfortable living environment [9]. This paper expounds the main land cover classification at home and abroad and the performance of the products in China. Based on the Chinese vegetation coding method and MODIS data, a new land cover classification system consisting of 7 primary types and 22 secondary types is designed in this paper. Using principal component analysis to determine the information of each land use type; on this basis, an improved decision tree classifier model is proposed to identify land cover categories and evaluate their accuracy. Experiments show that the method is feasible and effective. Based on the MODIS 1 km data from 2001 to 2002, the land cover map of China was compiled by using the multitemporal NDVI and multispectral reflectance [10]. The characteristics of intelligent data are diverse and complex. When intelligent data is filled around us, we can easily have them, but in a large number of intelligent data, how do we use them to solve some unsolved problems? Digital technology has two core technologies, namely, data

mining technology and data fusion technology. The goal of this paper is to explore the way of cultural education by using the learning idea of intelligent data. The idea and method of this paper is to settle digital trouble about reality through a new type of data [11]. With the development and growth of science and technology and network information technology, people have gradually changed from traditional paper reading to electronic reading through mobile phones, computers, and so on. Electronic reading is not only faster but also cheaper. During this period, a large number of E-reading methods emerged, but in most E-reading methods, only considering how to show a better reading style, the big data fusion technology was not used in the design of E-reading methods. With intelligence and big data, how to provide users with a more effective E-reading environment and push articles and books about users' interests according to people's reading habits and usage is the prospect of the development of E-reading in the future. What this paper studies is to build an efficient E-reading platform and way for users through the support of intelligent technology, improve users' knowledge, and relax their hearts and informatization. In addition, intelligent information-sharing technology is also used to create a communication platform between users so that users can exchange their reading insights and share favorite books. The main point of the rise of electronic digital reading is that it can identify and distinguish the grammatical particularity between Chinese and English and accelerate the reading efficiency of users [12]. In order to improve the extraction and classification rate of data generated by agricultural production and solve the problems of loss of agricultural data and information security, this paper designs an efficient data extraction algorithm, which completes the multisource agricultural big data information at the feature level and the decision-making level and solves the problem of multisource data fusion. Swarm intelligence algorithm simulates the complex problems of natural populations through the cooperation between individuals. Ant colony system (ACS) is a new intelligent bionic computing model, which takes ants as the main body to search and can well solve the shortcomings of traditional artificial optimization, such as low efficiency and likely to lead to partial improvement. It has strong parallelism and robustness. Firstly, this paper introduces the research background and significance of agricultural big data fusion, the research about internal and external trouble; on this basis, a knowledge-based big data fusion modeling method is proposed. At the end of this paper, the origin and experimental steps of the feature extraction algorithm for insect data are described [13]. This study explores the use of spreadsheets at different stages of the audit process through a series of case studies of Thailand's independent and local nonbig four audit firms. Our research adopts the concept of infusion, that is, to maximize its potential in the process of work. Through the use of a variety of ways to capture information, including hands-on or remote investigation, the research in this paper creates a way to use around development and dangerous situations. These data provide new insights into how audit firms use spreadsheets. Companies' spreadsheet input varies widely, which indicates that some small audit companies have great opportunities to improve the complexity of spreadsheet use. The study also identified many contributing factors to spreadsheet injection including IT capabilities, IT champions, the diversity and disorder of users, the complexity of the external environment, and the characteristics that it is difficult to detect. In addition, the frequent movement of personnel, the lack of tacit understanding between personnel, the difficulty of cooperation, and the unwillingness of users to integrate their own information and data [14], with the development of intelligent data technology and the Internet, they have become an important part of web design and development technology. Under the current website foreground development technology, the basic language of the website foreground development technology is hypertext language and other basic website foreground development frameworks. Hypertext language has the characteristics of dynamic and media technology. It can replace many old dynamic technologies and enhance the development standard [15].

2. Research on College English Education about Information Intelligent Technology

2.1. Information Intelligent Technology. Concept of intelligent big data technology data fusion is an emerging technology used in finance, military industry, and other industries. It organically combines various types of information resources in a certain way to better serve users. It can automatically associate the collected data according to the predetermined rules and extract them into the designed complete algorithm structure. It can quickly realize the state evaluation of research objects and the information processing of decision tasks.

In reality, human beings have the instinct of data fusion. In short, when human beings cannot distinguish something by vision, they will think comprehensively from the information obtained by other senses such as touch and smell. This is what we often call "sensory perception," which can be handled by computer. However, due to various reasons, people are not really aware of the role of data fusion. Intelligent big data technology is to extract information from all directions and then get the correct identification results based on these information; that is, we can see the same object from multiple angles so that we can get more information about the object visually.

2.1.1. Classification of Intelligent Big Data Technology. According to the hierarchy, intelligent data technology can be image level, feature level, and plan level. Pixel-level fusion refers to extracting the most original data collected by each sensor from different data sources through data layer fusion, because both methods are based on underlying data. That is, the data layer is analysis, and the fusion layer is less; compared with pixel-level fusion, feature-level fusion is to analyze and process some features of the acquired data after preprocessing, which belongs to

middle-level data fusion. The fusion of decision level is much more advanced than that of feature level. Based on the sensor, it completes the basic process of local data cleaning and feature extraction.

(1) Pixel-Level Fusion. Pixel-level fusion is really realized without any processing of the transporter transport information data. After the fusion, information has been analyzed and finally a conclusion is drawn. In the process of data fusion, because there is a certain level of homogeneity between in a variety of transmitters, choose their own appropriate data combination methods.

(2) Feature Layer Fusion. The difference between feature-level fusion and pixel-level fusion is that the feature vector is extracted after acquiring the primitive sensor data, and the fusion process is completed in the extracted properties vector, but the attributes of the feature vector should be explained. Because the feature vector has the characteristics of spatial correlation and direction consistency, it can be used as the input vector and then processed by the corresponding algorithm to obtain the final output information.

(3) Decision-Level Fusion. When the decision-making level is fused, each sensor is relatively independent. When the sensor obtains the original data, it extracts features from the local data to obtain a result. Finally, it describes the consistency of the local results of each sensor to obtain the final result. Because the method based on feature layer is adopted, it is characterized by effective authenticity and uncertainty.

2.2. Research on College English Teaching Mode

2.2.1. Current Situation of College English Learning. Through questionnaires and interviews, it is found that most domestic college students' English learning is in the shallow learning stage of description, memory, replication, and imitation. Due to the influence of exam-oriented education, they are keen to deal with various standardized English examinations. These tests are all tests of the candidates' basic pronunciation and reading comprehension ability. Although this kind of examination can help students master certain grammar rules and vocabulary usage, it cannot improve their comprehensive use of English in listening, speaking, reading, and writing. In order to pass the English test smoothly or get high scores, students often recite mechanically, simply imitate language skills, and only pay attention to the content of the next test. After passing the test, they will soon forget what they have learned, and the processing of knowledge will only stay in short-term memory.

2.2.2. Creation of College English Language Education Model. There are four common problems about language teaching model in China: one is the low-level ability goal bias, the other is the simple teaching organization form, the third is the backward information technology means, and the fourth is the learning model characterized by mechanical

acceptance. In order to solve these problems, this paper puts forward a research proof discussion of college English teaching method about information and big data fusion technology.

3. Analysis of Computing Algorithm about Information Intelligent Big Data Technology in College English Education Design

3.1. Big Data Multisensory Data Fusion Method

3.1.1. Bayesian Method. Bayesian estimation method is often used in the lowest level data fusion, generally in the static environment. In this paper, we first introduce Bayesian estimation and least square algorithm, then give two application examples in different cases, and finally make a summary and outlook. The mathematical expression is as follows:

$$P(B_i|A) = \frac{P(B_i)P(A|B_i)}{\sum_{j=1}^{n} P(B_j)P(A|B_j)}. \tag{1}$$

3.1.2. D_S Evidential Reasoning. The premise of D_S evidential reasoning is to use set n as the reasoning basis. Set n is composed of multiple nonrepeating set elements and $\forall(A) \in 2N$ and represent propositions within the range of the set. By constructing the function $m : 2N \longrightarrow [0, 1]$, m within $2n$, it satisfies $m(f) = 0 : \sum_{A \subseteq \theta} m(A) = 1$, where the meaning of $m(A)$ is about the occurrence of proposition a. The trust function and plausible function are obtained from the above, and the mathematical expressions are as follows:

$$\begin{aligned} \text{Bel}(A) &= \sum_{B \cap A} m(B), \\ \text{Pl}(A) &= \sum_{B \cap A \neq f} m(B). \end{aligned} \tag{2}$$

Thus, it is determined that the evidence uncertainty interval is $[\text{Bel}(A), \text{Pl}(A)]$, and this range is also an effective interval. Based on ensuring that the calculation is correct, D_S evidence reasoning constructs its own method: the mathematical expression is

$$m(\phi) = 0, \tag{3}$$

$$m(A) = \frac{1}{1-k} \sum_{A_i \cap B_j \cap C_t} m_1(A_i) \cdot m_2(B_j) \cdot m_3(C_t), \quad \forall A \subset N. \tag{4}$$

$1/(1-k)$ in Formula (4) means normalization factor. The function of normalization factor $1/(1-k)$ is to control the filtered data content within a special range, such as 0~1 and -1~1, so as to reduce the harmful impact of odd data.

In Formula (4),

$$K = \sum_{A_i \cap B_j \cap C_t} m_1(A_i) \cdot m_2(B_j) \cdot m_3(C_t) \cdots \tag{5}$$

3.1.3. Artificial Neural Network.

Artificial neural network has been widely used in many fields, especially in solving some complex problems related to human beings. For the input of hidden layer and input layer, the mathematical expression is

$$O_j = \sum_{i=1} w_{ij} X_i + \theta_j. \tag{6}$$

In Equation (6), w_{ij} is the connection weight between two nodes; I output is $X_i \sqrt{a^2 + b^2}$, and θ_j is the j threshold. The network model can be applied to practical problems by learning data to get a new structure and parameters. In many fields, the research of network structure is involved, such as bioinformatics. Artificial neural network is one of them. The most important part of neural network is neuron output, which is called dimensional activation function (VF) The mathematical expression is as follows:

$$X_j = \frac{1}{1 + e^{-oj}}. \tag{7}$$

3.1.4. Paste Progress Matrix.

Suppose there are n sensors in the system that collect a certain input, and the measured values of this group of sensors at a certain time are a. According to the fuzzy theory mentioned above, if there is an element in a discussion domain that does not absolutely belong to a set or that does not belong to this set to varying degrees, this kind of set is called a fuzzy set.

The mathematical expression of the closeness of the data measured by the two sensors is as follows:

$$a_{ij}(k) = \frac{\min\left\{x_i(k), x_j(k)\right\}}{\max\left\{x_i(k), x_j(k)\right\}}. \tag{8}$$

$x_i(k)$ is the result value when s/N is i, and $x_j(k)$ is the result value when s/N is j. In reality, the result value of $a_{ij}(k)$ often needs to be further optimized. If the result value of $a_{ij}(k)$ is less than a certain value m, it is considered that the two sets do not have closeness, so it is judged as zero. The mathematical expression is

$$a_{ij}(k) = \begin{cases} a_{ij}(k), & a_{ij}(k) \geq M, \\ 0, & a_{ij}(k) < M. \end{cases} \tag{9}$$

The set consistency check expression of the k-th ambiguous set i and other sensor ambiguous sets is as follows:

$$r_i(k) = \sum_{j=1}^{n} \frac{a_{ij}(k)}{n}. \tag{10}$$

3.1.5. Information Big Data Fusion Process.

A major problem to be solved in data fusion is to ensure the stability of each experimental data content. In order to facilitate representation, mathematical symbols are used in this paper. $x_i(k)$ is called the k-th result value of the i-th sensor; $w_i(k)$ is the k-th result value of the i-th sensor after successful data fusion. The correlation expression is

$$X(k) = \sum_{i=1}^{n} w_i(k)x_i(k). \tag{11}$$

$w_i(k)$ in Formula (11) represents the weight in the data fusion process. In the process of data fusion, for measurement data with different sensitivities, in order to weigh the different sensitivities of each data, weight can be cited, that is, the relative importance of each measurement data. The data with high sensitivity should have small error and large weight; the data with low sensitivity has large error and small weight. Therefore, it is very important to give the weight correctly for the data measured with unequal sensitivity.

Since $w_i(k)$ represents weight, Formula (12) should be satisfied. The mathematical expression is

$$\sum_{i=1}^{n} w_i(k) = 1 (0 \leq w_i(k) \leq 1). \tag{12}$$

$w_i(k)$ shall integrate all the information about $a_{i1}(k)$, $a_{i2}(k), \cdots, a_{in}(k)$ in the paste progress system of $x_i(k)$. To meet the above requirements, we need to find a set of nonnegative numbers $c_1(k), c_2(k), \cdots, c_n(k)$; then,

$$w_i(k) = c_1 a_{i1}(k) + c_2 a_{i2}(k) + \cdots + c_m a_{in}(k), \quad i = 1, 2, \cdots, n. \tag{13}$$

Formula (13) can be rewritten into matrix form, and the mathematical expression is

$$\begin{aligned} W &= AC, \\ W &= [w_1(k), w_2(k), \cdots, w_n(k)]^T, \\ C &= [c_1(k), c_2(k), \cdots, c_n(k)]^T. \end{aligned} \tag{14}$$

Because of $a_{ij}(k) \geq 0$, it can be determined that matrix A is asymmetric. In this case, some results about the relationship between eigenvalues and eigenvectors of nonnegative real symmetric matrices are obtained. Finally, a numerical example is given to verify the correctness and effectiveness of the proposed method. The expression is as follows:

$$\lambda C = AC. \tag{15}$$

By calculating λ and eigenvector C and simultaneously ensuring $c_i(k) > 0$, the following can be obtained from Formulas (14) and (15).

$$W = \lambda C. \tag{16}$$

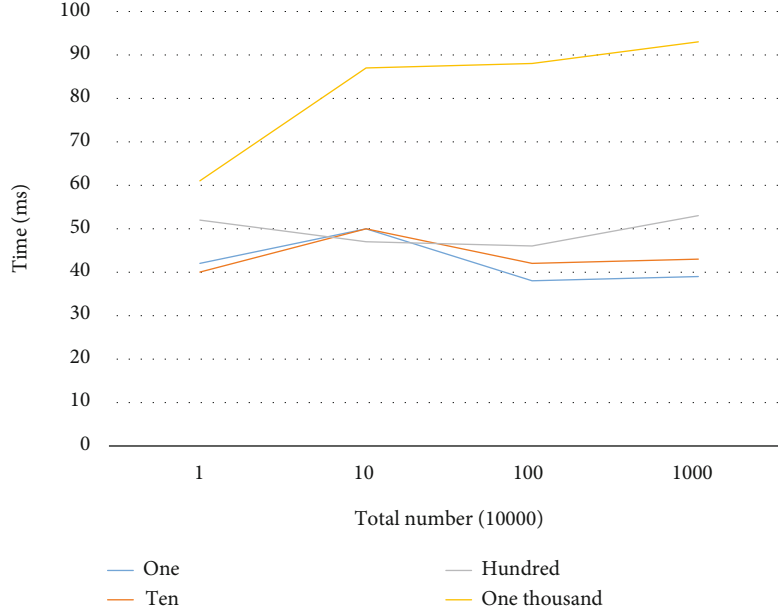Formula (16) can be used to calculate the comprehensive

FIGURE 1: Basic performance test of intelligent data technology.

pasting degree of fuzzy sets. The expression is as follows:

$$\frac{w_i(k)}{w_j(k)} = \frac{c_i(k)}{c_j(k)}. \tag{17}$$

Because $w_i(k)$ needs to satisfy Formula (12), Formula (18) simply normalizes $w_i(k)$, and the mathematical expression is as follows:

$$w_j(k) = \frac{\sum_{i=1}^{n} c_i(k) x_i(k)}{c_1(k) + c_2(k) + \cdots + c_n(k)}. \tag{18}$$

Bring Formula (18) into Formula (11) to get the final result of data fusion estimation. The mathematical expression is

$$\chi(k) = \frac{c_i(k)}{c_1(k) + c_2(k) + \cdots + c_n(k)}. \tag{19}$$

4. Application Analysis of Intelligent Data Technology in English Education Design

4.1. Functional Test of Intelligent Big Data Technology. In the old way of education, it is mainly pointed at the solving and storage of the feedback effect of education. The amount of data to be processed is particularly large. Therefore, when the amount of data is large, it can also ensure the real-time data processing and storage and enhance the system response speed on the premise of massive data. B/s mode is adopted, which has good scalability and flexibility. Data processing performance test includes data preprocessing and data fusion.

According to Figure 1, as the information statistical index in the figure is the same, the response of the statistical

time is positively correlated with the amount of information to be queried. When consistent information data statistics is to be queried, the total number of records increases, and the query time is correspondingly extended, but both are in the range of steady growth.

Figure 2 displays the function test chart of intelligent technology processing, in which the blue, red, and green lines represent the test results when there are 2, 3, and 4 indicators for fusion.

When the number of fusion indicators increases, the whole fusion time will be prolonged. When the same number of indicators are fused, the utilization rate is not high when the concurrent processing volume is too large. As the amount of development trend of intelligent technology is increasing and when it reaches about 1000, the utilization rate reaches the maximum, thus shortening the use time.

4.2. Experimental Analysis of Intelligent Big Data Technology in College English Education

4.2.1. Statistical Analysis of the Changes in Reading Performance of Verification English. Descriptive statistics is an activity to describe the characteristics of data, such as induction, collation, and simplification. Descriptive statistics turns complex data into easy to understand data; it is an indispensable means for all kinds of experimental research.

According to Table 1, the highest and lowest scores in the regular class and the control class are similar in class size and English entrance scores. The average grade of students in the control class is 98.49 points, while the average grade of students in the ordinary class is 98.56 points, with an average difference of only 0.07 points. The standard deviation difference between the two classes is 0.677 points, and the data has little deviation from the average value.
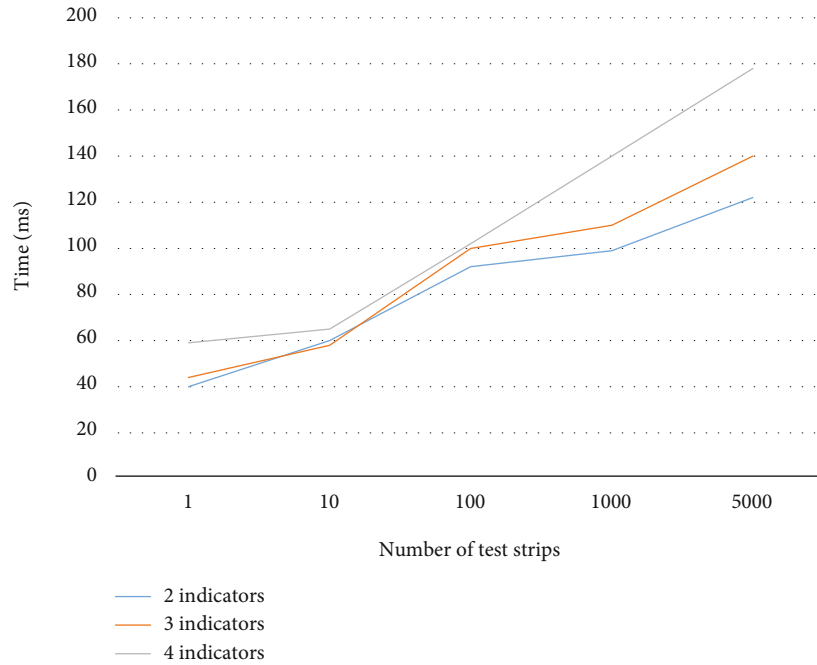
FIGURE 2: Fusion processing performance test of intelligent data technology.

TABLE 1: Statistics of freshman English scores.

Object		N	Lowest score	Highest score	Uniform value	Specification value
Control class	English	49	61	128	98.49	15.058
Experimental class	English	50	61	129	98.56	15.762

TABLE 2: Descriptive statistics of freshman English scores.

Object	Gender		N	Lowest score	Highest score	Uniform value	Specification value
Control class	Male	English	24	63	130	95.13	18.972
	Female	English	25	65	124	101.04	12.976
Experimental class	Male	English	26	69	127	96.50	14.539
	Female	English	24	61	129	100.79	17.017

TABLE 3: Independent sample test on college English entrance scores of freshmen in experimental class and control class.

Equal variance or not	Levene variance test			Equivalence S exam			
	K	Truth	s	Emancipation	Pom	Uniform value	Specification value
Assumed equal variance	0.123	0.727	-0.129	97	0.897	-0.417	3.222
Not assumed equal variance	—	—	-0.129	96.721	0.897	-0.417	3.223

As shown in Table 2, the data presentation on N, lowest score, highest score, uniform value, and specification value of freshman English entrance scores is presented.

The study found that the ratio of sample number of subjects in the regular class and the control class is very similar. The difference between the average scores of boys in the two classes is only 1.04, while the difference between the average scores of girls is also limited to 0.61. The standard deviation of both male and female students in the two classes is limited to about 1, which shows that there is not much distinctness between the English entrance grades of boys in the two classes from boys to boys.

As shown in Table 3, the independent sample s exam is used to investigate if it has a significant distinctness in the language subject literacy level between the regular class and the control class. K value is 0.123, and the significance P

TABLE 4: Comparison and description of students' entrance and freshman English scores.

Object	Subject	Quantity	Lowest score	Highest score	Uniform value	Specification value
Control class entrance test	English	49	30	101	61.20	13.543
Control class college final test	English	49	29.0	104.0	71.898	14.289
Control class reading comprehension 1	English	49	2.5	32.5	14.439	6.945
Control class reading comprehension 2	English	49	2.5	32.5	15.816	6.641
Entrance test of experimental class	English	50	36	87	60.64	12.023
Experimental class college final test	English	50	44	96.5	72.30	11.616
Experimental class reading comprehension 1	English	50	2.5	32.5	14.95	6.277
Experimental class reading comprehension 2	English	50	5.0	32.5	17.80	6.116

TABLE 5: Independent sample test of reading comprehension test scores in the first semester of freshman year.

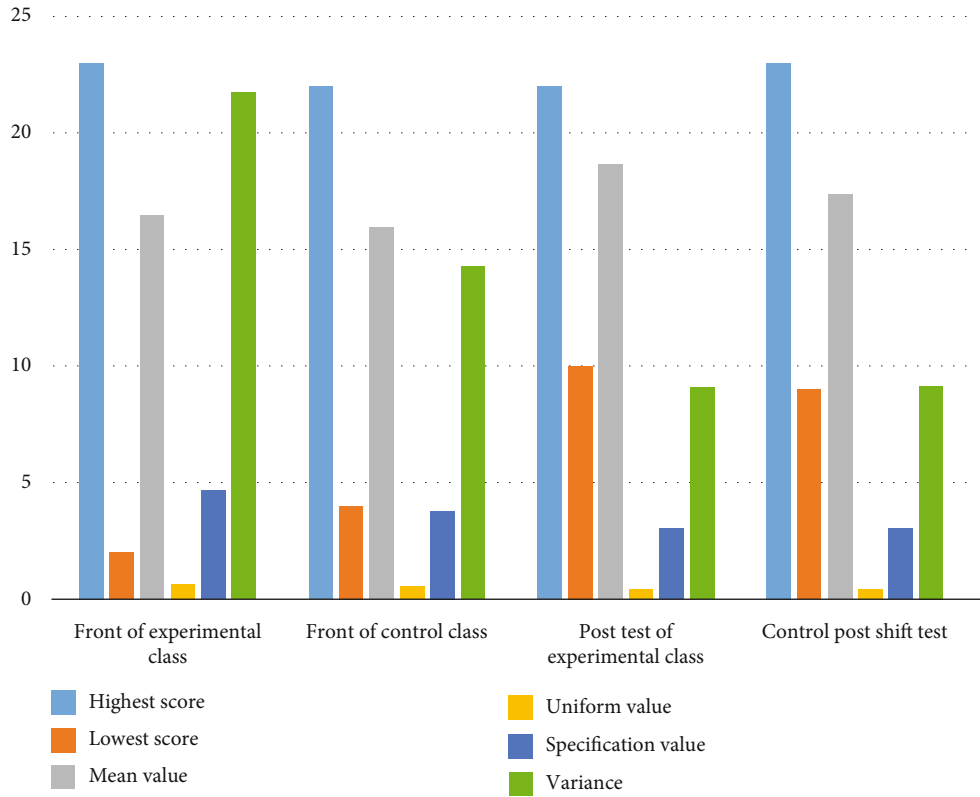| Equal variance or not	Levene variance test		Equivalence t exam				
	K	Truth	s	Emancipation	Pom	Uniform value	Specification value
Assumed equal variance	0.199	0.657	-1.003	96	0.318	-1.377	1.372
Not assumed equal variance	0.005	0.944	-2.299	98	0.024	-2.850	1.239

FIGURE 3: Test statistics of the scores of the two classes before and after statistical analysis.

value is 0.727, which exceeds 0.05, so the variance is neat and the data is available. According to the results of t-test, both classes have good English education background. Therefore, the average college English scores of the two classes have obvious equality, that is, there is no obvious difference.

Table 4 shows the comparison and description of students' entrance and freshman English scores.

The English-browsing method of the students in regular class and the control class is inconsistent, and the reading lit-eracy represented by the English learning ability of the control class has been greatly improved. This also verifies that the new college English education model about intelligent big data technology can promote students' English learning ability.

As shown in Table 5, it is a test of the equality of Levin variance and mean value in the test scores before and after reading comprehension in the first semester of freshman year.

TABLE 6: Test results of variance equation of writing test in two classes before and after the experiment.

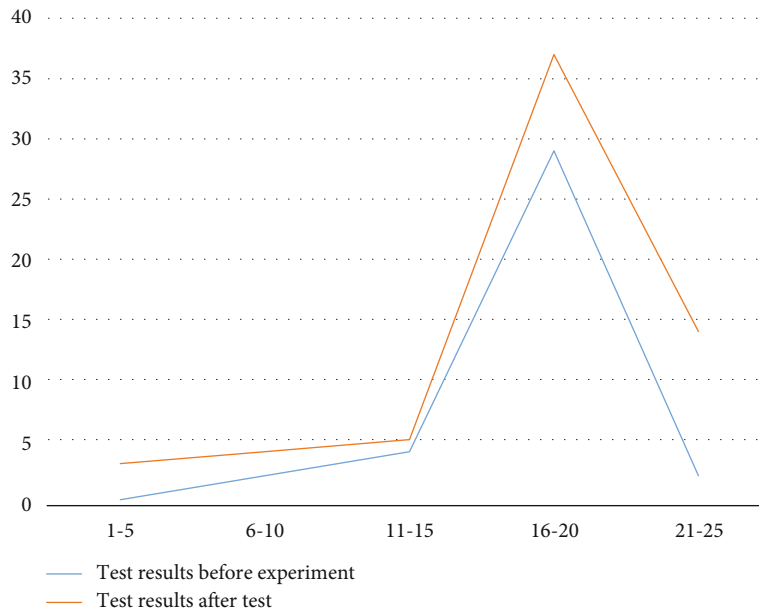|		Variance equation test				Mean variance t-test			
		F	Sig	Dm	t	Df	Md	Sd	Di	Cin
Pretest scores	Similar standard	0.366	0.546	0.54	0.613	98	0.520	0.848	01	2.204
	Dissimilar standard			0.54	0.613	936	0.520	0.848	-1.164	2.204
Posttest scores	Similar standard	0.006	0.939	0.37	2.120	98	1.280	0.604	0.082	2.478
	Dissimilar standard			0.37	2.120	98	1.280	0.604	0.082	2.478

FIGURE 4: Change trend of scores before and after statistical analysis.

By observing the data in Tables (4) and (5), it is found that the average scores of the control class and the experimental class are the same, and the difference is less than 1 percentage point. The reading comprehension scores of the control class differ by 1.377 percentage points before and after the two tests, and the difference between the two tests before the experimental class is 2.85 percentage points. Through comparative analysis, it is found that the average scores of reading comprehension in the pretest and posttest of the experimental class and the control class are higher than those in the pretest, and there is no significant difference between the two classes. But there were significant differences in the test results.

4.2.2. A Statistical Analysis of the Changes in English Writing Performance. Before and after the experiment, the evaluators of the outline writing test were all three English teachers in the middle school where the subjects were located. Three of the subjects achieved average scores in the outline writing test before and after the experiment; after statistical analysis of the experimental results, the conclusion is there is no significant difference in the scores of general vocabulary and grammar between the experimental class and the control class.

As shown in Figure 3, survey and analysis of scores, the scores of English writing regular class and the control class were divided.

As shown in Table 6, after investigation, the experimental results show that intelligent big data technology in teaching can not only improve students' learning interest and academic performance but also promote the practical communication between us, so as to improve the teaching effect. Finally, some suggestions are put forward through the experimental content investigation. This shows that intelligent big data technology has become a driving part on college English education model and has its advantages and feasibility.

As shown in Figure 4, after comparing and analyzing the two classes, it is found that the grade of the control class is improved more than that of the regular class, and the post-test score of the control class is higher than that of the grade. On the whole, after the experiment, the quantity of high segment students in the control class increased significantly, and the quantity of low segment students decreased, which verified the role of big data fusion technology in improving college English writing ability.

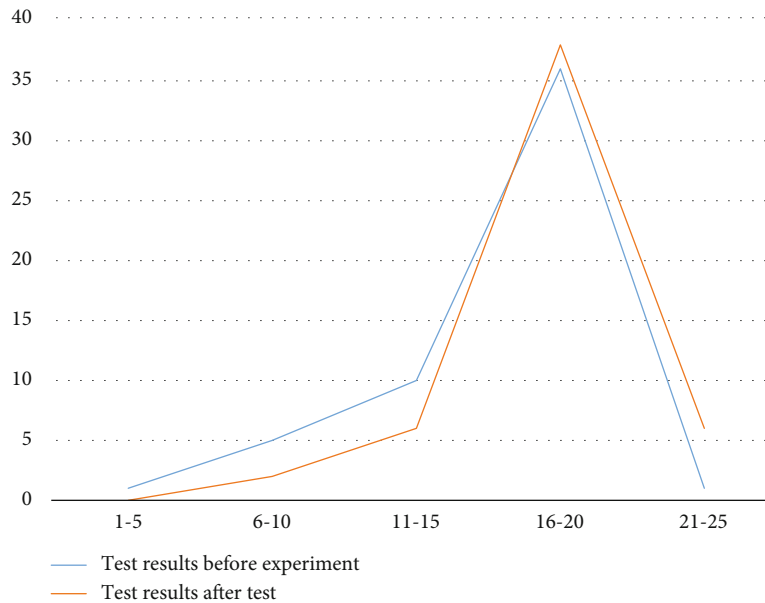As shown in Figure 5, we can find contrast with the regular class, the average grade of the control class has

FIGURE 5: Analysis on the effect of the change of experimental results.

improved to a certain level; meanwhile, it also shows layered educational mode has an important influence on improving the teaching effectiveness difference between classes. But compared with the experimental class, the increase is not large.

5. Conclusion

Firstly, this paper introduces the concept of big data fusion technology and the classification of big data fusion technology. Then, it introduces the research theme and background of this article, analyzes the current situation of college English learning and the traditional college English teaching mode, analyzes the disadvantages of the traditional college English education mode, and proposes to integrate big data fusion technology into the college English education mode. Then, it introduces the calculation algorithm design about information intelligent big data technology in college English education design, mainly including big data multisensor fusion algorithm, artificial neural network algorithm, and big data fusion process calculation algorithm. Finally, the functionalization of big data fusion technology is tested experimentally, which verifies the functionalization about intelligent big data technology and the experimental analysis intelligent big data technology in college English education, and the experimental results are sorted out and classified.

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

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