

Retraction

Retracted: Discussion on the Network Literacy Education System of College Students under the Big Data Media Management Model

Journal of Sensors

Received 19 December 2023; Accepted 19 December 2023; Published 20 December 2023

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] X. Jiang, "Discussion on the Network Literacy Education System of College Students under the Big Data Media Management Model," *Journal of Sensors*, vol. 2022, Article ID 1517051, 12 pages, 2022.

Research Article

Discussion on the Network Literacy Education System of College Students under the Big Data Media Management Model

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Received 12 July 2022; Accepted 1 August 2022; Published 23 August 2022

Academic Editor: Yaxiang Fan

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Quality is strengthened by one's own efforts in continuous learning. Quality education is a requirement for enhancing comprehensive national power. In a sense, it is of great significance to carry out quality education for college students, improve national quality, cultivate innovative talents, and ensure the quality of national and innovative talents, which is a prerequisite for social development. Quality education is the requirement of education reform in higher vocational colleges. Since entering the 21st century, many higher education institutions have slowly changed from elite education to mass education and from professional education in the past to professional education and quality education at the same time. This paper focuses on the study of college students' network quality education system under the big data media management mode, using SQL Server big data management system, Oracle big data analysis research, and related score evaluation method to make an overall analysis of the current situation of China's college students' network quality education, and on this basis, we propose to improve academic standards, improve teachers' quality education ability, follow academic freedom and equality, and improve the suggestions of improving academic standards, improving teachers' quality education ability, following academic freedom and equality, improving teacher appointment system, optimizing evaluation system of quality education results, innovating incentive mechanism of university teachers' online quality education, and creating benign development system of university teachers' online quality education are proposed.

1. Introduction

Quality is the comprehensive development of physical, mental, ideological, moral, and cultural aspects, i.e., "moral, intellectual, physical, aesthetic, and labor," through one's own efforts in continuous learning. To build good quality is the goal of everyone's efforts. Good quality not only represents personal image but also represents collective and correct values [1].

Quality education is a requirement for the enhancement of comprehensive national power. As the society continues to develop, people are more and more aware of the importance of quality, and in daily life, one can see whether a person's character and three views are correct through quality. With the progress of the times, the country pays more and more attention to the development of personal quality education. In a country with hundreds of millions of people, a person with the right values is a reflection of the image of

the individual and the nation. In the development of society, "quality" is also included as a requirement for strengthening comprehensive national power [2]. To put it more broadly, the strength of a country depends on the degree of quality education of its working people. In a sense, it is of great significance to carry out quality education for college students, improve the quality of the nation, cultivate innovative talents, and ensure the quality of the nation and innovative talents, which is the prerequisite for social development. Quality education is the requirement of education reform in higher vocational colleges [3]. Since entering the 21st century, many higher vocational colleges and universities have slowly changed from elite education to mass education and from professional education in the past to professional education and quality education at the same time. In the past, higher vocational colleges and universities often put professional education in the first place, which makes students in higher vocational colleges and universities only focus on

studying professional skills and refining professional ability to the neglect of personal quality improvement. With the continuous reform of education, quality education is also included in the reform goal and becomes the focus of reform. In order to form the concept of education such as “all-round development of moral, intellectual, physical, and aesthetic, everyone’s success, and cultivation of personal innovation,” it is necessary to focus on quality education in schools, so that the quality of college students can be greatly improved. This has a profound impact not only on individuals but also on the diversified development of society. When recruiting and hiring employees, major enterprises often take into account the professional skills and good quality of individuals. The development of quality education is better adapted to the mainstream development of today’s society, and higher education institutions should also include quality education as an important topic in students’ education. A person with good quality can reflect good moral quality, strong learning ability, and social adaptability, as well as strong resistance to stress and strong psychological quality [4]. For college students who have just entered the society, some of them have a weak moral consciousness and a poor sense of collaboration, which makes it difficult for them to survive in the fierce social competition. Only by carrying out quality education, so that students can improve their thoughts, values, collaboration, stress resistance, and morality, they can successfully enter the society and have certain adaptability, which is not only a requirement for the personal competitiveness of students in higher education institutions but also a requirement for the talents needed in today’s society and for higher education institutions [5].

2. Research Background

This paper studies about the network literacy education system of college students under the big data media management mode, but there is less literature on quality education of college students, so this paper studies the content related to network quality education from aspects related to teacher management, network education, and quality education.

At present, the network literacy ability of college students in China is still not systematically educated and trained, and their ability to acquire, handle, and organize the network is not standardized enough when they carry out innovation activities, which is reflected in the following: their awareness of network value is not high enough, and they are not good at using network skills to solve the difficulties encountered in the innovation process; they are used to passively accepting the knowledge taught by teachers in the classroom, and lack the initiative to collect, acquire, and use network to help. They lack the ability to identify the vast amount of network information and trust the wrong network to influence the process of innovation activities; they lack the ability to organize the network information related to innovation activities and are unable to prioritize the network information and identify the key network information that is very important to innovation activities; they know less about network ethics and network laws and get into trouble with intellectual property rights in innovation activities.

They are less aware of cyber ethics and cyber laws and are caught in the dilemma of violating laws and ethics in innovation activities such as intellectual property disputes. There are many ways to realize network literacy education oriented to the cultivation of college students’ innovation ability [6].

One is to build a network literacy course teaching system oriented to the innovative ability cultivation of college students and integrate innovation education into the course structure, course content, and teaching methods of traditional library network literacy education, including both classroom teaching and off-course practice; in terms of classroom teaching, the teaching scope should be expanded, innovative teaching content should be introduced, and network literacy education should be penetrated into the daily courses of college students. In terms of classroom teaching, we should expand the scope of teaching, innovate the teaching content, integrate network literacy education into the daily courses of college students, and lay a good foundation of network literacy for future innovation activities. In terms of off-course practice, innovation project themed exhibitions can be held to talk about all aspects of network literacy in innovation activities in the course of the exhibition, or students can be led to visit innovation industrial parks so that they can experience the process and methods of network processing in innovation activities in the industrial front [7]. Secondly, the network literacy education model embedded in the process of innovation projects is carried out, taking the innovation projects of college students as the case and the college students’ innovation project team as the education object, providing embedded network literacy education, such as training and consultation, in the pre-initiation and planning stages, the mid-execution stage and the closing stage of innovation projects, respectively, and carrying out network literacy education in the whole process of innovation project execution. Education can make the university students’ innovation team exercise their ability to retrieve, organize, discern and absorb, and transform the network in practice, and strengthen their ability to control the network, so as to enhance their innovation ability and accumulate innovation experience [8]. Third, actively cooperate with innovative R&D units or enterprises; as stated in the book, libraries can use the project resources and funds of external innovative units or enterprises to carry out innovation competitions with network literacy as a core skill, build a joint training mechanism between universities and external innovative units, and send college students to the front-line work of innovative units, so that college students can deeply experience the network literacy ability in the enterprise innovation process [9].

3. Materials and Methods

3.1. Basic Theory

3.1.1. Network Teaching and Learning. Network teaching mode is usually defined as using network technology for online teaching or multimedia technology for offline teaching under the guidance of certain teaching mode theories and teaching ideas to achieve a positive tripartite interaction

among teachers, students, and media applications. In the multimedia teaching mode, information is created, disseminated, and shared, and the purpose of teaching can be better accomplished, so the online teaching mode is a more efficient teaching mode [10].

The online teaching context environment must find the best combination of content and methods to meet the specific per-cycle characteristics of online training, such as “targeted training system,” “online training system,” “online training system of online training institutions,” “online pedagogical research,” “optimization, achievement, and testing of pedagogical goals” [11]. Online teaching must reflect the fundamental position of students, favor their interests, and encourage and encourage active, active and creative participation in education. Students can learn on their own, at their own pace and content, making time and space for their own reflection. Retraining is also possible for specific events, increasing the efficiency of training [12]. Of course, there are significant limitations for students who do not learn well on their own. For example, the dynamic and interactive nature of the network is used to identify students’ problems and shortcomings in time, to exploit their rational imagination, to explore the spirit of innovation and students’ abilities, or to compensate or improve or educate them. The role of the teacher and the status of the student as a teaching object are closely linked, and it does start with the actual teaching object. The unlimited expansion of online courses will increase the pressure on students and inhibit their rational imagination and creative thinking if the teaching concept is applied to the online educational environment [13]. In the context of online teaching, special attention must be paid to the personalization of teaching and learning, and to the radical change of the old “big audience listening to reports” model of teaching in order to better meet teaching standards and to better accommodate the different situations and differences among students. The students agreed that the teacher’s achievement reached the level of knowledge, comprehension, and exploitation of differences, perhaps taking full advantage of the teacher’s strengths, through different scripts, different cases, different questions, different methods, different approaches, different requests, different waits, and different students may complete the teaching. This environment has changed its educational model, aiming to take care of a small number of students so that they can learn at the expense of some of them, educate them effectively, and improve the overall quality of education for all students [14]. Web-based teaching and learning have the following five models, as shown in Figure 1.

3.1.2. Quality Education. Quality education is based on the overall improvement of basic human qualities, respect for subjectivity and initiative, development of human intellectual abilities, and creation of education for healthy people [15]. High-quality education is a real necessity for social development and its purpose is to enable people to see things correctly and deal with all phenomena and phenomena in the social environment in which they live. At the beginning of the new century, small-scale economy, technological competitors of the world, economic competitors, talents, com-

petitors of the private sector, weak strength depends on workers, different qualities and quantities. Some scholars say: “The establishment of basic education in the country is the responsibility of all” [16]. Faced with the challenges of the knowledge economy, it is clear that there is a fundamental gap between the existing educational systems, structures, human culture, educational models, pedagogical contents, teaching methods, and the innovative human culture required for modernization [17]. Some teachers and even principals believe that quality education is not functional and difficult to achieve, so they continue to work with slogans, forms, and implementation; because of the idea that “education should be tried,” many schools are still seeking to achieve unilateral levels of education, full of learning, full of learning, focusing only on knowledge education and neglecting other areas of education issues; the impact on the overall development of the child. Therefore, it is a complex and urgent strategic task to improve the understanding of the idea of quality education [18].

3.1.3. Big Data Collection and Management. The research in this paper is about the discussion of the online literacy education system for college students under the big data media management model. Therefore, it is important to make use of the big data collection and management system, which is utilized today not only to store a large amount of data and form a large number of data storage network systems but also to analyze and process data extremely quickly [19]. Big data management systems are all about analyzing and processing a wide variety of data with the rational use of media such as computers and networks. It is becoming more and more popular in all aspects of life with fast and convenient digital information transmission and processing, bringing a great degree of information convenience to people’s future study and life, updating people’s traditional view of data management, providing a more innovative and convenient way to store and process a variety of data, and greatly improving people’s work efficiency. Big data management system has four main features, such as large storage volume, rapid information processing, real and effective data results, and a wide variety of data types, as shown in Figure 2.

3.2. Research Methods

3.2.1. SQL Server Big Data Management System. On the basis of today’s mainstream Windows and other operating system platforms, SQL server database as a new generation of database and analysis of the processing platform software is rapidly being widely used and widely accepted by various enterprise customers. Unlike other current database platforms such as FoxPro and smaller databases such as Access, SQL server has a complete and powerful database management and service processing functions that are easy to use. There are engines that support development, standard database languages such as SQL, and extended feature functionality (such as replication, OLAP, analytics, etc.). It is also significantly ahead of the rest of the market in terms of other

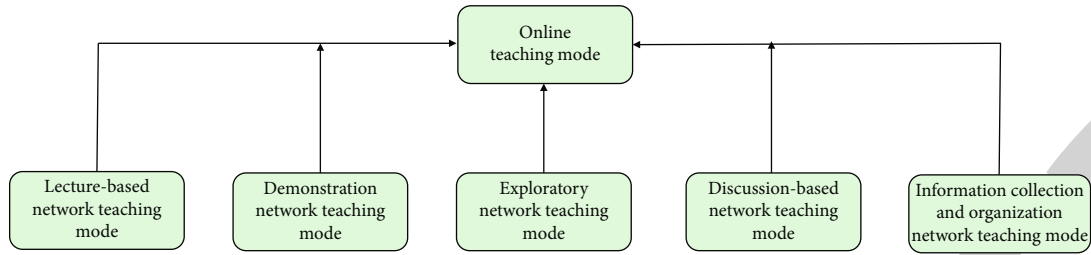


FIGURE 1: Web-based teaching models.

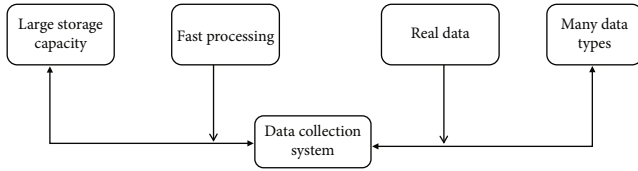


FIGURE 2: Characteristics of data collection system.

key features that only large database software can have to [20], such as stored procedures and triggers.

Microsoft SQL server 2010 is based on Microsoft SQL server 7.0, greatly extended to increase database performance, reliability, quality management, and ease of use. Microsoft SQL server 2010 database version is a high-performance enterprise relational database management system with high reliability, ease of use, and other characteristics. SQL server 2010 features more comprehensive specific features, as shown in Figure 3.

Therefore, this paper selected SQL server 2010 for big data analysis; first of all, SQL server 2010 version has been more mature; secondly, SQL server is the management of large database use, that is, analysis of big data use; the use of the software is more appropriate; finally, SQL server is more commonly used to analyze big data software, use to make other. The researcher can read the paper more easily. Finally, this paper analyzes the network literacy education system of college students under the big data media management mode.

3.2.2. Oracle Big Data Analysis Research. Oracle Database Management System is a relational database management system developed by the German company Oracle Software (Oracle in Chinese). It may also be another database product designed by Microsoft with distributed database design as its biggest core feature. It will also be one of the most popular distributed C/S server architecture solutions or distributed B/S database architecture solutions currently used by Microsoft worldwide. Oracle database has a wide range of design aspects, such as banking, telecommunications, mobile, aviation, insurance, and e-commerce. Meanwhile, Oracle's product is free, we can download the installation package from the official website, but its service is charged. Compared with SQL server database, the state of "doubt" is one of the most obvious attractive performance advantages of Oracle database parallel server model, which can achieve any one subquery into any number of subqueries and then execute subroutines on two different server CPU processors, greatly

improving the performance of multiprocessing systems, which should be a. This should be a data trend with a great potential competitive advantage that is growing rapidly in the coming years [21]. Oracle database also has many other significant advantages over complete data storage management; large data storage capacity, long persistence time, can be shared, to ensure reliability. Complete related products; perfect distributed management functions; easy to operate, etc., as shown in Figure 4.

In this paper, we use Oracle big data analysis to study and analyze the data of university teachers' management education system, and lay the foundation of big data processing for the innovative application of big data ecological management system in this paper.

3.2.3. Main Evaluation Method. To discuss about the network literacy education system of college students under the big data media management mode, the efficient use of big data on the network literacy education system of college students should make comprehensive use of a variety of analysis methods, quantify the specific indicators of network quality education, and specifically see the advantages and shortcomings of network quality education, better management and education of college students' network quality education, so this paper introduces the comprehensive evaluation index of teachers and education system. The comprehensive evaluation index is measured, and the following is the formula of the relevant index. The higher the index value is, the higher the evaluation and ability of the network quality education system is.

The neural network index is mainly processed from two parts of the input data, which are supervised learning and unsupervised learning. In the unsupervised learning part, the data are clustered by using clustering algorithms such as K -means to obtain the centroid of the radial basis function of the hidden layer, and then the width vector of the radial basis function is calculated using the centroid information, and the width vector is calculated (1) as follows.

$$\sigma_j = c_{xy}/\sqrt{2h}, \quad (1)$$

where c_{xy} is the maximum distance before the centroid and h is the number of nodes.

After that, the input data are related to the scattering through the implicit layer and the output layer, respectively, and the output x_i of the first node j of the input sample in the implicit layer is calculated by the following equation

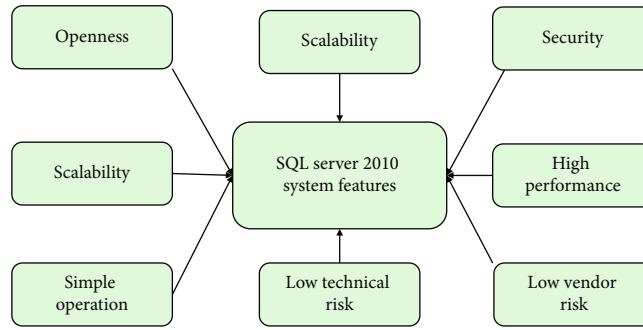


FIGURE 3: SQL server 2010 system main features.

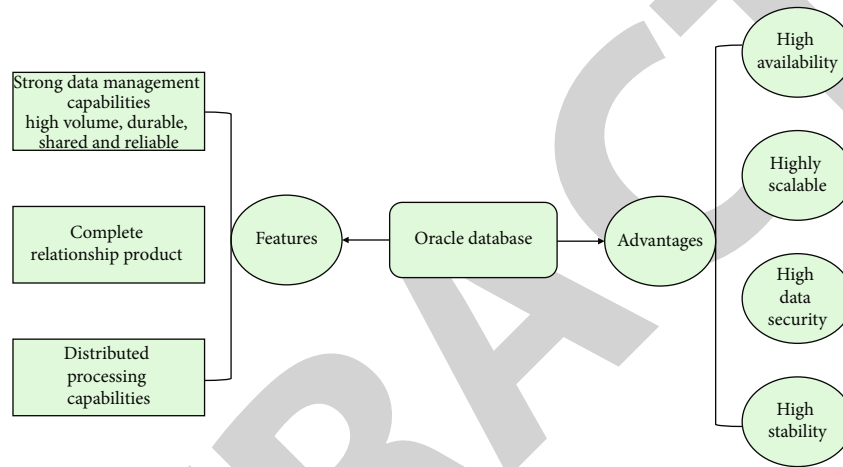


FIGURE 4: Features and advantages of Oracle database.

$$\phi(x_i, j) = \exp\left(-\frac{1}{2\sigma_j^2}x_i - c_i\right), \quad (2)$$

where c_j and σ_j are the centroid and width m vector of the first node in the hidden layer, respectively.

The output of x_i , the first node of j the input sample in the output layer is calculated by the following equation

$$y_m = \varphi(\phi(x_i, j) * w_m), \quad (3)$$

where w_m is the node weight and φ is the activation function.

In the supervised learning part, it is mainly the process of continuously correcting the parameters in each layer, and this process is mainly calculated by the error function to calculate the gradient value of each parameter, and then the parameters are continuously corrected using traditional gradient descent methods such as stochastic gradient descent (SGD), taking the weights used for linear calculation in the output layer as an example; the update formula is as follows

$$w_t = w_{t-1} - u * \frac{\sigma E}{\sigma w_{t-1}}, \quad (4)$$

where E is the error function and u is the learning rate.

The higher the value of neural network index indicates the higher the evaluation of college students' network quality education system and the higher the ability of college students to improve. In addition to the above method, the centroid and width vector of the hidden layer can be directly generated randomly, after which it is updated according to the gradient correction formula of the supervised learning process.

4. Results and Discussion

The research of this paper is about the Internet literacy education system for college students under the big data media management model. Therefore, the system is measured from several perspectives, such as the comprehensive quality evaluation of students' improvement, the overall academic level of teachers, and the comprehensive evaluation of students' mental health degree. The calculation duties of relevant indicators and coefficients are obtained by the algorithm introduced in this paper as well as database unification, making full use of SQL server big data management system, Oracle big data analysis research, and the main evaluation method needed in this paper. And then on the basis of the current situation of the study, certain relevant suggestions are made.

4.1. Current Status of Research. In the 20 years from 2000 to 2020, the proportion of male and female teachers and the proportion of master and doctor in China's colleges and universities showed a decreasing trend year by year, although the teachers with undergraduate education and below were not considered, but it is enough to show the trend that the proportion of male and female teachers in China's colleges and universities is gradually balanced and the teachers' education is gradually improved, which further shows that the teachers in China's colleges and universities are gradually balanced and the comprehensive quality of the teachers is continuously improved. From the perspective of college students' network literacy education system under the big data media management mode, with the continuous improvement of teachers' level, the level of China's college students' network quality education will also be gradually improved, as shown in Figure 5.

The total proportion of various types of teachers in one institution in China is high. Other research institutions have the lowest proportion of all kinds of teachers. Regardless of whether it is a bachelor's degree, independent college, high school, or other scientific research institutions, the structure of teachers' titles shows a relatively normal distribution structure of middle and low on both sides. The distribution of teachers at all levels in China is more balanced. In addition, the structure of teachers in China shows a distribution of the highest proportion of undergraduates; the second highest proportion of senior high schools; independent colleges follow; and other research institutions are less. It basically adapts to the fast-growing development situation in China. It can show that the higher the level of China's college students' network quality is implemented in the higher level colleges and universities, the better the effect. The overall faculty level is shown in Figure 6.

According to the Self-Test Health Measurement Scale (SRHMS), a comprehensive analysis of the body organ function index, positive emotion index, negative emotion index, physical health scale index, and psychosocial health scale index was conducted between general college students and college students receiving online quality education in the case of statistical significance, i.e., $u < 10$ and $p < 0.05$. The higher value of the result of this index indicates the higher mental health index, and the result shows that the indexes of college students receiving network quality education are higher than those of ordinary college students in all indexes. It indicates that the comprehensive mental health index of college students who received network quality education is higher than that of ordinary students, which indirectly indicates that network quality education teaching has certain influence on students' mental health, can improve students' physical and mental health, enhance students' comprehensive anti-stress ability, and has significant positive influence on students' comprehensive overall development, as shown in Figure 7.

Using SQL server for data analysis, using the measurement model of mental health, three levels of mental health analysis theory and other research methods, the calculation of the comprehensive index of mental health, and the calculation of the general average person's comprehensive index

of mental health between 7 to 9, in this range, the psychological quality is proportional to the value. The higher the value, the stronger the psychological stress resistance and mental health, and the stronger the comprehensive psychological quality. The general college students' comprehensive mental health index fluctuates up and down between 7.2 and 7.4, while the comprehensive mental health index of college students receiving online quality education shows a trend of fluctuating growth. This shows that in online quality education, students' psychological quality will be improved and students' overall psychological health is stronger, with the aim of improving students' psychological quality.

However, in the two-year period of the change of the comprehensive index of mental health, there is also the phenomenon that the comprehensive index of mental health of college students receiving network quality education changes more, and there may be special periods such as the exhaustion period and bottleneck period. Therefore, in receiving network quality education, extra attention should be paid to the ups and downs of students' psychology, and students should be helped to adjust their performance mental health, so as to achieve the purpose of improving students' comprehensive mental quality, as shown in Figure 8.

4.2. Related Suggestions

4.2.1. Raise Academic Standards and Improve Teachers' Quality Education Ability. Teachers in higher education continue to engage in the academic profession of teaching first of all requires that students have undergone long-term solid training in theoretical knowledge and technical professional quality of this academic discipline, and have a fairly certain high level of theoretical academic quality foundation and potential academic research development growth potential. Therefore, an improved system of access and qualifications for the education profession should be established to comprehensively ensure the comprehensive overall quality of our teaching population.

Research on the establishment of a multilevel, time-sensitive, and highly operable system of relevant professional qualification level certification assessment standards and the establishment of provincial professional qualification identification and implementation certification agencies. Based on the actual need situation of meeting the needs of individual lifelong development of academic career and the value concept of pursuing education for lifelong comprehensive development of academic career, a set of academic professional qualification and certification career standard system with multiple levels and timeliness is established. Therefore, it is recommended to gradually establish academic career and certification professional standards covering several minimum levels above the college teaching career and use these minimum levels as the core qualification standards for evaluating academic career talents. At the same time, a system of regular and certified assessment and evaluation of teaching qualifications at all levels should be established, and examinations should be set for students at each level according to the level of teaching qualifications valid once (e.g., every five years). In the study validity period,

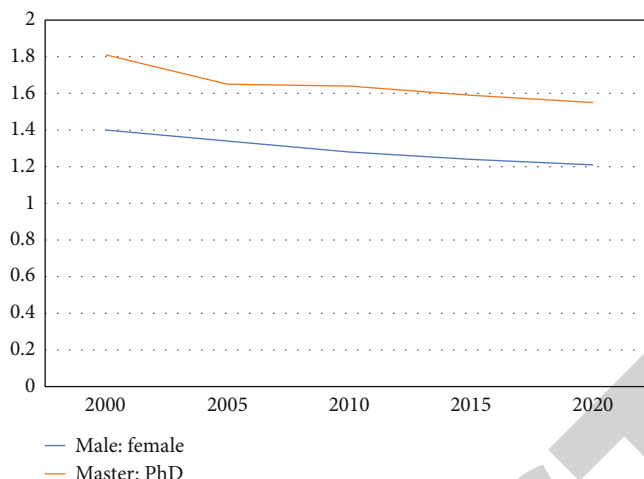


FIGURE 5: Changes of gender ratio and master's degree ratio of teachers in China's colleges and universities.

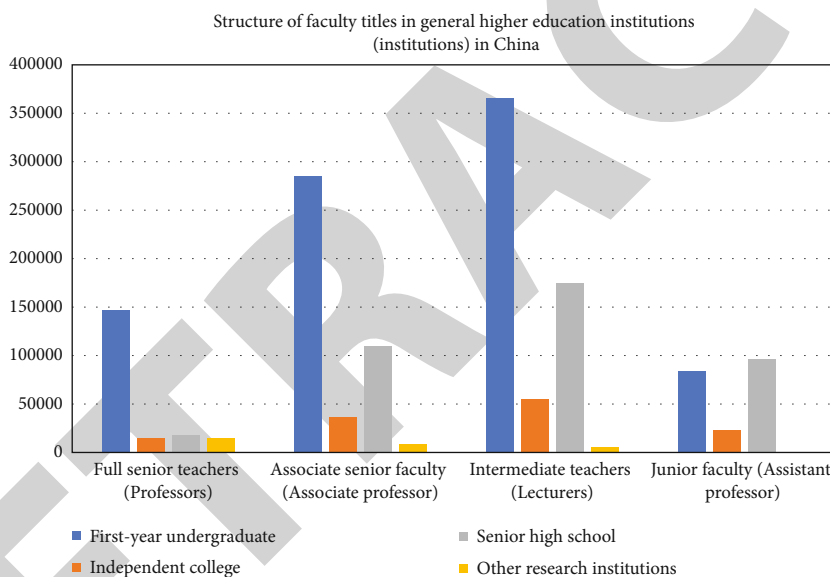


FIGURE 6: Structure of teachers' titles in general higher source schools (institutions) in China.

you must pass the corresponding course examination of the corresponding next level of education qualification training and certification level standard by obtaining a certificate of experience and study results of teaching continuing learning education and training of a certain scale, and pass the corresponding course examination of the corresponding next level of education qualification training and certification level as required, in order to successfully obtain the education continuing training teaching practice qualification. In this way, the level of development between the dual standards of qualification and certification can be mutually permeable and integrated, guiding teachers and the community to encourage in-service teachers to carry out continuing in-service learning, indicating the right direction for the in-service professional and technical development of China's teachers to enhance, in an effort to effectively ensure the improvement of the overall quality of teachers nationwide.

The establishment of institutions for the implementation of various types of professional qualification systems is a crucial legal guarantee for the effective and smooth implementation of the university teaching qualification system. For example, establish a number of professional organizations for the organization and implementation of professional qualifications within university education and a number of specialized organizations for the recognition and implementation of external professional qualifications for university teachers—that is, several specialized accreditation committee units or accreditation agencies can be established within university teachers to jointly implement the work related to the accreditation of the school teaching qualification system, and through the establishment of the development of perfect standards, fair, transparent, feasible, and fair procedures of the school teaching qualification examination and certification system to ensure the effective

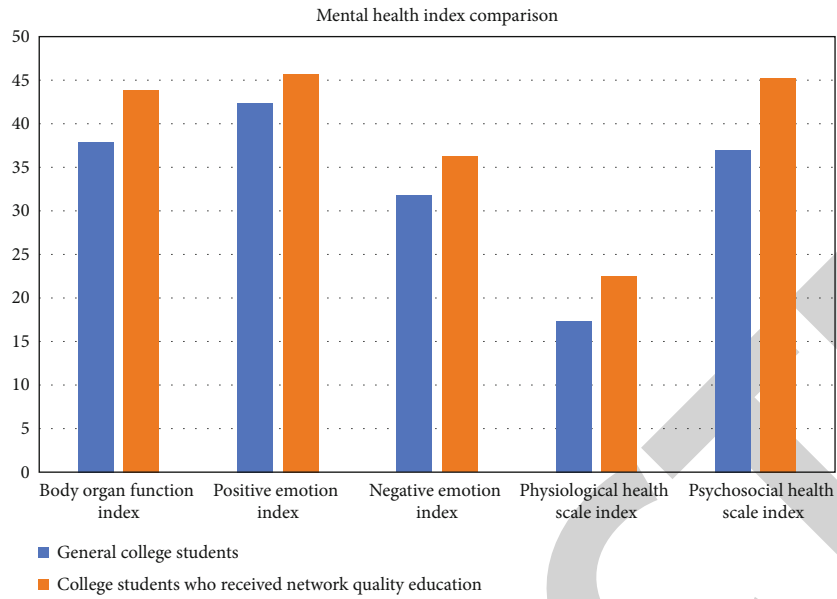


FIGURE 7: Comparison results of SRHMS index measurement.

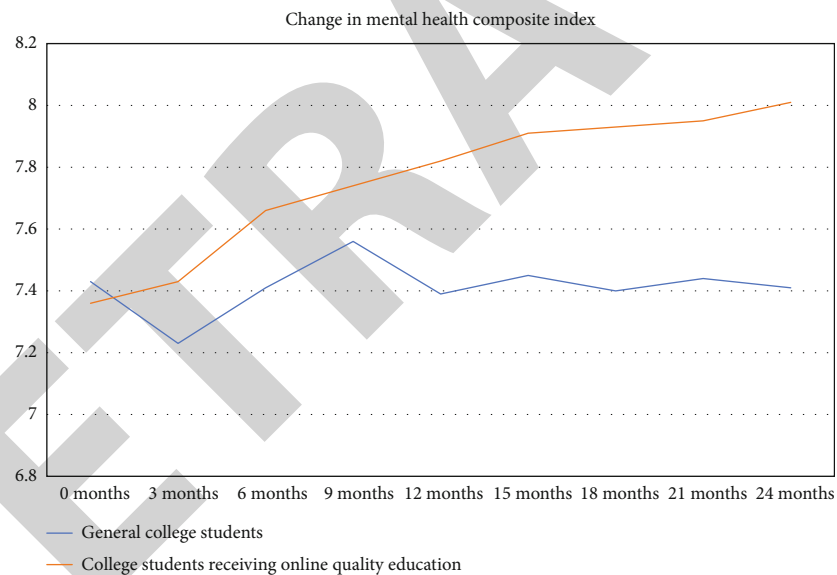


FIGURE 8: Change of comprehensive mental health index.

and smooth implementation of the whole process of work related to the certification of the university teaching qualification system; supervisory and inspection agencies of the primary and secondary school teacher qualification training and certification work should be established, respectively, within the universities to ensure the scientific fairness, objectivity, and scientific justice of the relevant qualification examination and certification results.

4.2.2. *Follow Academic Freedom and Equality and Improve Teacher Appointment System.* Teacher appointment system management is one of the several major administrative links stipulated in the formulation of the basic system of teacher

recruitment management in colleges and universities. Researchers in colleges and universities should adhere to the basic characteristics of academic career ability of college teachers, adhere to the principles of academic evaluation and free flow and peaceful flow of employment, and optimize and improve the appointment system of college teachers.

The establishment of a career “admission period” system to improve personnel management in the academic career is a special career, requiring special. The process of “selection” and “optimization” must be determined in a reasonable order. In the case of “fixed-term” and “undetermined-term” employment as a system design. The following points must be taken into account: first, to determine the acceptable

duration of appointment; second, to ensure professional development and equal competition for the “visiting” group; third, at the “admission” stage, peer review and implementation of the “development evaluation”; fourth, with regard to “tenure,” appropriate rules must be established to safeguard the legal rights and interests of teachers. The purpose of the management process is to optimize the structure of the faculty of higher education institutions, promote rational mobility of academic enterprises, and foster academic prosperity and development. In accordance with the general plan and discipline of the school, an appropriate classification and classification management strategy is being developed in order to clearly define teaching responsibilities in all positions and to achieve the highest and most effective results in the school. By establishing some mobile professional staff centers and academic mobile research positions in universities, we can actively promote the social freedom and mobility of various academic professional groups, strengthen the exchange between Chinese and foreign academic workers, improve the academic level of society, and maintain the overall vitality of universities.

4.2.3. Optimize the Evaluation System of Quality Education Results. The evaluation system of teachers in higher education should take the promotion of teachers’ academic career development and teachers’ self-fulfillment as the ultimate goal of evaluation. Therefore, in order to promote the development of teachers and academic careers, it is necessary to adhere to the principles of academic fairness and freedom to optimize the evaluation system of university teachers.

The evaluation system of educational assessment is scientifically established to promote the overall development of their academic careers. College teachers must engage in academic work of higher education mainly according to the law, and the principle of academic evaluation freedom is its fundamental internal operation logic. The scientific establishment of the evaluation system standards of teachers’ titles must all take into account the specific characteristics of academic career personnel training in colleges and universities, and follow the evaluation principle of free and standardized educational academic work. On the one hand, it creates a scientific, harmonious, and fair environment atmosphere for academic education evaluation of university teachers and reflects social humanistic care. The system construction of teacher title evaluation should pay attention to respecting the overall regular process of academic level growth and change of the teaching team and individual differences of the teaching team, respecting the historical professional achievement experience formed by contemporary college teachers themselves as high-quality intellectuals, scholar talents, and lifelong educators, and paying attention to the historical natural life, academic life value and personal spiritual life of teacher titles. On the other hand, there is a need to gradually change the traditional assessment methods and adopt a comprehensive performance assessment approach. A cross-assessment of cooperation mechanisms was conducted and recommendations were made at the same time, focus should be placed on the principles and relative flexibility of evaluating the work of staff in order to enable the

development of groundbreaking innovations under highly free, healthy, and effective conditions based on the teaching process humanitarian thinking. Establishing a rating system to evaluate teaching positions in higher education institutions is an indicator of the professional reputation of teachers. The high academic reputation of scientists must be based on the generally accepted cultural recognition of the entire academic community. The objective recognition of the level of academic achievements of others and the degree of innovation of others’ academic values are the universal value and affirmation of scholars for the achievements of their academic professionals. Therefore, in order to fully and effectively play the overall role of the members of the academic community, we should adhere to the principle of “academic leadership and academic research by professors.” For example, gradually and comprehensively establish a mechanism for evaluating and assessing the reputation of evaluation experts, strengthen the standardization of the reputation system of evaluation and consulting experts in China, etc.; expand the relative transparency of the decision-making process in the review process to ensure a high degree of rational support for the recommendations of professors and experts; colleagues have conducted a cross-evaluation of the cooperation mechanism and improved, improved, improved, improved.

4.2.4. Innovative Incentive Mechanism for College Teachers’ Network Quality Education. Incentive mechanism design is one of the three important practice content links of performance management practice of teachers in China’s colleges and universities. Researchers in colleges and universities should be able to innovate various incentive mechanisms for the work of college teachers according to certain intrinsic spiritual motivation characteristics of their academic professional pursuits, so as to promote the innovative enhancement of high-level academic ethics and the healthy professional development of college teachers in China.

It is necessary to strengthen the internal cultural motivation of the main body that cultivates academic professional culture and create a long-term incentive mechanism that unites the wisdom of academic groups. As another special academic profession, competition, reputation, and group honor also constitute an important internal external incentive mechanism for this academic professional behavior. The analysis of the working group on the internal distribution of income in colleges and universities found that the first thing that should be taken into consideration when assigning staff to work in local colleges and universities is not performance pay and salary and benefits but the nature of the work and the local academic atmosphere. The research on incentive mechanism of innovative research teachers in colleges and universities should be more based on the characteristics of internal incentive methods of academic professional managers’ own behaviors, insisting on the combination of internal material factor incentive as the main and internal spiritual factor incentive as well as the material spiritual principle incentive, insisting on the combination of school internal factor incentive principle and college external factor incentive method, and insisting on the

combination of school positive incentive means and internal negative factors motivation methods are combined, and external positive motivation methods are dominant, so as to maximize the reasonable guidance to stimulate the subjective enthusiasm and independent creativity of young teachers' innovation and promote high-level academic innovation. The group honor incentive system can be used to guide the standardized healthy and benign development of relevant academic organizations themselves, promote the overall common technical progress of the Chinese university teaching profession, and effectively enhance the incentive effect of academic career. It effectively overcomes certain limitations of the academic organizations and their own conditions for young teachers' academic thinking innovation research and knowledge creation talent cultivation, enhances the overall cohesion among young college teachers, and enhances the role of disciplinary synergistic radiation effect within the academic professional group; also due to the introduction of perfecting the system of merit competition and merit selection mechanism and quality supervision and inspection mechanism, it effectively makes up for the principal in a great certain degree sense. The quality of teaching after the end of the term of office assessment results of a certain lack. By implementing the employment system and arrangements such as the total number of quotas, it can effectively promote the overall fairness of the internal selection or appointment mechanism of researchers in the short term, promote the orderly competition of talents within the university organization, and encourage the orderly cross-collaboration of human resources among the faculty teams of each university. Therefore, management methods such as combining individual academic award programs with collective honor award programs on and off campus should be considered in order to gradually adapt to the needs of work characteristics and talent demand development trends in the academic career activities of university teachers in the coming years.

4.2.5. Creating a Virtuous Development System for University Teachers' Network Quality Education. Teacher continuous development evaluation system is also one of the two main core content items in the research of teacher training management application system. The reform of the continuous development talent training system for teachers in colleges and universities should take the important goal of effectively promoting the comprehensive development of contemporary college teachers' academic careers into success and their personal self-development ability.

A flexible and diverse effective higher education professionalism development planning system should be gradually formed to promote the development of Chinese teachers' professionalism towards legalization. The basic composition system of higher education teachers' talents is extremely complex and large, and the development status of each type of individual university teachers' main professional fields is significantly different in degree. Therefore, each university in different teaching type backgrounds should also have a system of policies for the development of high-level teacher professionalism of different degrees. For example, an open,

flexible, diverse, and efficient mentor training mentor system, a flexible and diversified system of university-enterprise cooperation talent development programs, academic norms, a system of lifelong education development planning, and the construction of academic sabbatical system. At the same time, according to the actual characteristics of various types of college teachers in different historical academic career stages of development, we provide free professional training, further training, academic experience exchange seminars, and other training opportunities for college teachers at all levels with corresponding levels to meet the development orientation and actual academic position development planning needs of each college teacher's own education profession. The process of legalization of the development of higher education teachers' positions is an important legal sign of the results of the construction of the professional path of higher education teachers. The main guidelines that should be followed through administrative legislation for ensuring the in-depth implementation of the strategy of professional development of highly qualified teachers are the relevant mandatory legal norms and government normative laws. At present, China has repeatedly formulated other relevant management policies, institutional designs, and reform measures to ensure the healthy development of university teachers, but most of them have not been able to rise to the overall height of the administrative legal system, and in the process of implementing the laws, they often fail to fully play the role of protection that they should play due to certain practical reasons. Therefore, it is necessary to further develop a more specialized and effective system of relevant legal provisions or to add some relevant institutional provisions to the existing relevant legal norms as soon as possible, so as to truly ensure the further smooth implementation of the construction of the system of guaranteeing the professional development of teachers in China.

5. Conclusion

As society continues to develop, people are increasingly aware of the importance of quality, and in daily life, one can see whether a person's character and three views are correct through quality. With the progress of the times, the country pays more and more attention to the development of personal quality education. In a sense, it is of great significance to carry out quality education for college students, improve national quality, cultivate innovative talents, and ensure the quality of national and innovative talents, which is a prerequisite for social development. Quality education is the requirement of education reform in higher vocational colleges. Since entering the 21st century, many higher education institutions have slowly changed from elite education to mass education and from professional education in the past to professional education and quality education at the same time. This paper focuses on the study of college students' network literacy education system under the big data media management mode, using SQL server big data management system, Oracle big data analysis research, and relevant score evaluation method to make an overall analysis of the current

situation of China's college students' network quality education, and on the basis of which the following suggestions are put forward.

- (1) Improve academic standards and teachers' quality education ability. Teachers in higher education continue to engage in the academic profession of teaching firstly need students who have undergone long-term solid training in theoretical knowledge and technical professional quality of this academic discipline, and have a fairly high level of theoretical academic quality foundation and potential academic research development growth potential. Therefore, an improved system of access and qualifications for the education profession should be established to fully ensure the comprehensive overall quality of our teaching population
- (2) Follow academic freedom and equality and improve the teacher hiring system. Managing the faculty hiring system is one of several key management provisions in the development of a pooled faculty management system. Higher education graduates should insist that they should follow the principle of free movement of teachers and other personnel, such as academic workers, to optimize and improve the teaching system of higher education institutions based on the basic characteristics of the academic professional competence of teachers in higher education institutions
- (3) Optimization of the system of evaluation of the results of quality education. The evaluation system of teachers in higher education institutions should promote the development of teachers' academic careers and teachers' self-actualization as the ultimate goal of evaluation. Therefore, in order to promote the development of teachers and academic careers, it is necessary to adhere to the principles of academic fairness and freedom to optimize the evaluation system of higher education teachers
- (4) Innovative incentive mechanism for college teachers' network quality education. The design of incentive mechanism is one of the three important practical content links of performance management practice of college teachers in China. Researchers in colleges and universities should be able to innovate various incentive mechanisms for the work of college teachers according to certain intrinsic spiritual motivation characteristics of teachers' academic professional pursuits, so as to promote high-level academic moral innovation enhancement and healthy professional development of college teachers in China
- (5) Creating a benign development system for university teachers' network quality education. Teacher continuous development evaluation system is also one of the two main core content items in the research of teacher training management application system.

The reform of the continuous development talent training system for college teachers should take the important goal of effectively promoting the comprehensive development of contemporary college teachers' academic career into success and their personal self-development ability

Data Availability

The dataset is available upon request.

Conflicts of Interest

The author declares no conflicts of interest.

References

- [1] D. Kara, "Cyber-pedagogy to the rescue: creating effective online programming for students and trainees during the pandemic," *Aging*, vol. 5, Supplement_1, 2021.
- [2] Z. Yue, Z. Guochang, and Z. Bo, "Does learning longer improve student achievement? Evidence from online education of graduating students in a high school during COVID-19 period," *China Economic Review*, vol. 70, no. 12, p. 101691, 2021.
- [3] S. Yaxiang, W. Shu, L. Yixian, L. Xinying, and P. Ai, "Online education at the medical School of Tongji University during the COVID-19 pandemic: a cross-sectional study," *BMC Medical Education*, vol. 21, no. 1, 2021.
- [4] H. Yinghui, L. Hui, W. Wang, R. Dong, and T. Yun, "The junior students' internet literacy scale: measure development and validation," *International Journal of Environmental Research and Public Health*, vol. 18, no. 19, p. 10120, 2021.
- [5] X. Liu, "Application of big data technology in the construction of smart campus in higher vocational colleges [J]," *International Journal of Higher Education Teaching Theory*, vol. 3, no. 3, 2022.
- [6] G. Jiafeng, "Family conditions and the accessibility of online education: the digital divide and mediating factors," *Sustainability*, vol. 13, no. 15, p. 8590, 2021.
- [7] A. H. Salim, "A study on the impact of the sudden change to online education on the motivation of higher education students," *Higher Education Studies*, vol. 11, no. 3, p. 78, 2021.
- [8] B. G. Dana, "Factors influencing students' behavior and attitude towards online education during COVID-19," *Sustainability*, vol. 13, no. 13, p. 7469, 2021.
- [9] B. G. Ionela, N. Valentin, A. Alexandru, and B. Geanina, "The effectiveness of online education during Covid 19 pandemic—a comparative analysis between the perceptions of academic students and high school students from Romania," *Sustainability*, vol. 13, no. 9, p. 5311, 2021.
- [10] D. Varineja, B. Jasna, and K. Mojca, "Difference in the attitude of students and employees of the University of Ljubljana towards work from home and online education: lessons from COVID-19 pandemic," *Sustainability*, vol. 13, no. 9, p. 5118, 2021.
- [11] Z. Feng, "The exploration and countermeasures of university education management model based on big data technology," *Journal of Physics: Conference Series*, vol. 1881, no. 2, p. 022099, 2021.

- [12] Z. Qian and L. Ying, "The position and method of counselors in the education of college students' network cultural literacy [J]," *2020 2nd Asia-Pacific Conference on Advance in Education, Learning and Teaching*, vol. 66, no. 5, 2020.
- [13] Y. Ren and R. Yaqiong, "Application of big data technology in innovation of college students' education management," *Journal of Physics: Conference Series*, vol. 1648, no. 4, p. 042077, 2020.
- [14] X. Binbin, S. Song, and D. Wang, "Application of smart safety training and education in network teaching management," *Safety Science*, vol. 124, p. 104608, 2020.
- [15] D. Virtue, "Student perceptions of their web literacy identities," *Computers and Composition*, vol. 55, no. C, p. 102549, 2020.
- [16] S. Indartono, "Data on higher education student ethics model," *Data in Brief*, vol. 28, no. 15, p. 104904, 2020.
- [17] B. Gregor, B. Carsten, and L. Tobias, "Big data' in physics education: discovering the stick-slip effect through a high sample rate," *Physics Education*, vol. 57, no. 4, p. 045004, 2022.
- [18] R. T. Knowles, "Findings related to student identity using the large-scale civic education datasets [J]," *4th Sriwijaya University Learning and Education International Conference (SULE-IC 2020)*, vol. 513, no. 31, 2020.
- [19] Z. Wenbo, Z. Ming, and D. Yang, "Reform and practice of mineral processing innovative talents training system for international engineering education: taking Wuhan University of Science and Technology as an example [J]," *2020 6th International Conference on Social Science and Higher Education (ICSSHE 2020)*, vol. 505, 2020.
- [20] J. Cui, "Research on archives management in higher education institutions in the era of big data [J]," *International Journal of Social Sciences in Universities*, vol. 5, no. 2, 2022.
- [21] X. Xie and J. Chu, "Data collection and visualization application of VMware workstation virtualization technology in college teaching management," *Mathematical Problems in Engineering*, vol. 2022, 13 pages, 2022.