

Retraction

Retracted: Higher Education Management Analysis of Smart Transportation Big Data Application under the Background of Internet +

Wireless Communications and Mobile Computing

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Wireless Communications and Mobile Computing has retracted the article titled “Higher Education Management Analysis of Smart Transportation Big Data Application under the Background of Internet +” [1] due to concerns that the peer review process has been compromised.

Following an investigation conducted by the Hindawi Research Integrity team [2], significant concerns were identified with the peer reviewers assigned to this article; the investigation has concluded that the peer review process was compromised. We therefore can no longer trust the peer review process and the article is being retracted with the agreement of the Chief Editor.

The authors do not agree with the retraction.

References

- [1] Q. Jiang and L. Zhang, “Higher Education Management Analysis of Smart Transportation Big Data Application under the Background of Internet +,” *Wireless Communications and Mobile Computing*, vol. 2022, Article ID 5809214, 10 pages, 2022.
- [2] L. Ferguson, “Advancing Research Integrity Collaboratively and with Vigour,” 2022, <https://www.hindawi.com/post/advancing-research-integrity-collaboratively-and-vigour/>.

Research Article

Higher Education Management Analysis of Smart Transportation Big Data Application under the Background of Internet +

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Big data is an unprecedented approach, in line with the development trend of today's era of rapid technological development; the ultimate purpose is to analyze and process the corresponding software and data of the huge data collected. This paper is aimed at studying the higher education management of big data application in the context of Internet + and at providing comprehensive optimization and development of Internet + and higher education management services. On the whole, the article first conducts a series of detailed analysis on the concepts of Internet +, big data, and higher education management based on the understanding of the general background, followed by an in-depth study of big data service methods and then the experimental design of higher education management cases based on big data. By comparing the two test scores of the two groups, the experimental results show that the average score of the two groups has changed from a difference of only 1.1 to a difference of 5 points, 58% of the students in the experimental group were satisfied with higher education management.

1. Introduction

The Internet has brought great changes to human life, work, and study. The emerging term “Internet +” has been deeply rooted in all levels of life, creating new scenarios. “Internet + education” further eliminates the limitations of time and space, and students can study without restrictions. The emergence of various new technologies in various forms, the Internet + education system, has also had a significant impact on traditional teaching methods, and many scholars and schools have been established to explore new teaching methods. Simultaneously, Internet + has changed the current education ecology, gradually redefining the way of education, making the forms of education more diverse and the system more flexible. “Internet +” not only brings great opportunities to education but also brings great challenges.

“Internet +” has two characteristics: advanced and superior. It is a product of the times, and it is of great practical significance to summarize its advantages and disadvantages by studying the integrated development of Internet + and higher education. First, it can make better use of advanced teaching methods to reform teaching models. Furthermore, the problem of uneven distribution is a major problem of the high quality of educational resources and university resources, and it can be improved very well. Seizing the opportunity, accelerating development, narrowing the gap with other schools, and increasing international influence make “Internet +” more integrated and optimized development, serve the reform of higher education, promote the construction of a learning society, and ultimately promote the establishment of a life-long learning system that promotes free development.

The innovation point of this paper is as follows: (1) based on the background of the Internet + era and its technical characteristics of the big data method, the data access mode of the storage system and the big data service method based on the Internet + are analyzed. (2) On the basis of in-depth exploration of Internet +, the application and practice of higher education management based on big data in teaching have been carried out, which has changed the traditional teaching mode through the comparative analysis of the two groups of scores; it is verified that the management has an obvious boosting effect on the students' learning effect.

2. Related Work

Today, people have entered a new era of new information technologies represented by the Internet and computers, which have been integrated into all aspects. Zhang and Peng start with the Internet + development model, with the help of Internet +; it analyzes and summarizes the reform and development of school sports in China and summarizes its development strategy. Research shows that Internet + technology can reasonably develop college sports resources and realize resource sharing through the Internet; the internal and external distribution of sports resources in colleges and universities is carried out, so that the existing educational resources of colleges and universities can be fully utilized and allocated reasonably and effectively. However, his research method is somewhat monotonous [1]. Lin studied the rapid development of e-commerce in the context of "Internet +," which has brought huge benefits and opportunities to the traditional economy. Through the analysis and reference of the foreign e-commerce tax collection and management experience, policy suggestions are finally put forward to improve. However, what he used for reference did not take into account the difference between his own conditions and foreign countries [2]. Qiao and Wang are under the background that the traditional translation teaching mode cannot keep up with modern education, and Internet-based translation teaching has become the norm; they studied and analyzed the characteristics. They also took the three most popular social interaction tools in China, WeChat and Weibo as examples, to conduct preliminary verification of the new model. However, the analysis data given in the whole article is not enough [3]. Li et al. analyze the Industrial Internet, investigate its brief history, and then introduce the 5C architectures that are widely used to characterize Industrial Internet systems. They also discussed the gradually changing application areas of Industrial Internet technology. However, some parts of the article are not based on reality [4]. The purpose is to better study the curriculum teaching mode of architecture colleges under the background of "Internet +". Chen and Xu took the course of "Information Retrieval" as the research object to discuss the teaching mode and related issues, which are clear and instructive to the current situation, and provide reference for related teaching. However, they lack sufficient comparative analysis, and there may be individual cases [5]. Yin et al. aim to study how to build a comprehensive intellectual property operation platform in the context of "Internet +"

to create a demand-oriented "one-stop" solution for intellectual property operations, emphasize the compatibility of different topics and interests on the platform, and avoid different types of risks from different aspects. However, they lack a rich database as theoretical support [6]. Soylev reviews the problems and current solutions related to the MOOC 1.0 era on the basis that the advancement of Internet technology leads the development of education. He analyzes the MOOC 2.0 era, discussing its possible impact on life now and in the future. However, he did not conduct a specific analysis of the impact and give corresponding measures [7]. Alderson et al. summarize recent advances in Internet research related to inferring and modeling router-level topologies for various service providers, inferring and modeling AS-level topologies for the Internet. However, many expressions in this paper have problems of strong subjectivity [8]. Chen et al. propose that material characterisation is an irreplaceable and important component of high-throughput computational materials science in a big data environment. Feature extraction and feature selection from three aspects of materials data can effectively improve the quality of dedicated machine learning models for high-throughput computational materials, rapidly predict physical properties, and save computational resources [9]. Bi et al.'s goal is to summarize the contributions of the existing literature in the field of AM and big data and to look at how big data approaches can provide a better future for AM technologies. Recent developments in combining AM technology with the Internet of Things (IoT), cloud, and cyber security are presented. Future directions for AM and big data are also indicated, including the unification of AM data, the completion of AM data sharing platforms, and intelligent AM production processes [10]. These methods provided some reference for our study, but the study did not gain public recognition due to the short duration and small sample size of the study in question.

3. Internet +-Based Big Data Service Method

3.1. Internet +. This research summarizes the characteristics of "Internet +" into the following four points: new technology, new elements, new space, and new system.

New technologies refer to new information technologies consisting of Internet of Things, big data, learning analysis, cloud computing, and other technologies [11–13]. The Internet of Things connects things and things, and its core is the Internet. The key to how educational big data changes learning lies in the highly potential learning analysis technology, which analyzes educational data to better serve students [14].

The new element refers to big data, which cannot be visualized due to technical limitations. The emergence of large-scale data technology has made human beings re-understand the world of life, and data analysis and mining technologies have been developed; people's life and work have brought earth-shaking changes.

Neospace refers to the emergence of the Internet, connecting the virtual and real worlds to each other. The Internet provides a platform for people to communicate and connect

all over the world. The virtual world created by the Internet makes the virtual and reality constantly approach each other.

The new system means that under the strong influence of the Internet, relevant systems, division of labor, and operating mechanisms are constantly changing, and new forms are slowly taking shape.

3.2. Big Data. Intelligent transportation is an integrated traffic management system, which includes not only Internet technology and intelligent monitoring technology but also sensor technology and control technology [15–17]. The system can provide accurate and effective data information and can effectively analyze data information [18].

Big data has four main characteristics, called “4V” characteristics, namely, volume, variety, velocity, and value.

The first is the huge data scale. According to IBM’s survey, 90% of the world’s total data is generated in recent years, and the growth rate is far beyond people’s imagination.

The second is the diversity of data types. With the rapid growth of IOT data, the number and variety of data sources lead to different data types and formats. It goes beyond traditional data collection, which is mostly structured. Large data types including images, sounds, videos, emails, and websites have increased significantly as a percentage of all data.

The third is strong timeliness. At present, data flow is a new form of rapid and dynamic generation of big data. The speed of creation and dissemination is very fast, and the production and dissemination of information are basically synchronized. It has high production efficiency and certain timeliness and can fully and quickly meet people’s needs for the latest data and information.

The fourth is great value, which is the most important feature of big data. By extracting big data, some new information and knowledge that cannot penetrate the era of small data can be discovered. This option is widely used in the commercial sector after collecting Internet browsing and customer behavior data; to a certain extent, investigating and analyzing purchasing behavior, market methods, and customer preferences; and making reasonable suggestions and opinions through behavior. Therefore, people must mine, filter, and analyze the authenticity and usefulness of massive data information, as well as the relationship between different information, which can really let the data “speak” and use the data to “make decisions” [19].

3.3. Higher Education Management. The so-called higher education refers to the higher-level education that people receive after completing ordinary secondary education and is an educational activity for culturally cultivating high-level professional talents. As a specialized high-level educational activity, higher education has two characteristics: first of all, it is a specialized education for people with certain basic knowledge and ability. Secondly, the target of education is young people who have just come of age. In China, higher education in a broad sense includes five categories: general higher education, adult education, self-study examinations, TV universities, and online schools. Higher educa-

tion in a narrow sense only refers to general full-time general higher education. In the “Internet +” era, it needs to stay ahead of the technology while applying new technologies and provide intellectual support for technological development. The research on the promotion of big data on the development of higher education is to explore the role of big data in the cultivation of talents in colleges and universities, scientific development, social services, and cultural inheritance and innovation [20, 21].

Management covering the entire field of higher education is higher education management. Higher education management refers to putting forward tasks, formulating plans, providing conditions, formulating laws and regulations, issuing instructions according to the needs of the country, and directly organizing personnel training and scientific research according to the requirements of higher authorities. In short, it is the decision made by managers to optimize the distribution of various elements in the organization, ensure smooth and effective daily management, and achieve the goals of higher education.

3.4. Big Data Service Methods under Internet +. The data access mode methods of the storage system are as follows:

The basic form of the recency-friendly data access mode is

$$(a_1, a_2, \dots, a_x, a_x, a_{x-1}, \dots, a_2, a_1)^z. \quad (1)$$

In formula (1), x is the number of data blocks, and Z is the number of loop visits. This data access pattern has good data locality, which is common in big data applications.

The basic form of its frequency-friendly data access mode is

$$((a_1, a_2, \dots, a_{x-1}, a_x^M P_\epsilon b_1, b_2, \dots, b_y)). \quad (2)$$

In formula (2), $x < \text{cache size}$, $x + y > \text{cache size}$, and $0 < \epsilon < 1$. x is the number of databases accessed multiple times, and Z is the number of times these data fields x are cyclically accessed. P represents the probability of accessing this y data block. N represents the number of cycles of the entire access process. In this access mode, the data blocks in the system are accessed at unequal frequencies, and accessing the database more frequently will lead to a greater improvement in access performance.

The basic form of the loop data access pattern is

$$(a_1, a_2, \dots, a_{x-1}, a_x)^z. \quad (3)$$

In formula (3), x is the number of databases to be cyclically accessed, and Z is the number of cycles.

The basic form of the mixed data access pattern is

$$((a_1, a_2, \dots, a_x, a_x, \dots, a_2, a_1)^{N_1} (a_1, a_2, \dots, a_{x_1}, a_x)^Z P_\epsilon (b_1, b_2, \dots, b_y))^N. \quad (4)$$

In formula (4), x is the number of databases to be accessed iteratively, Z is the number of times of iterative

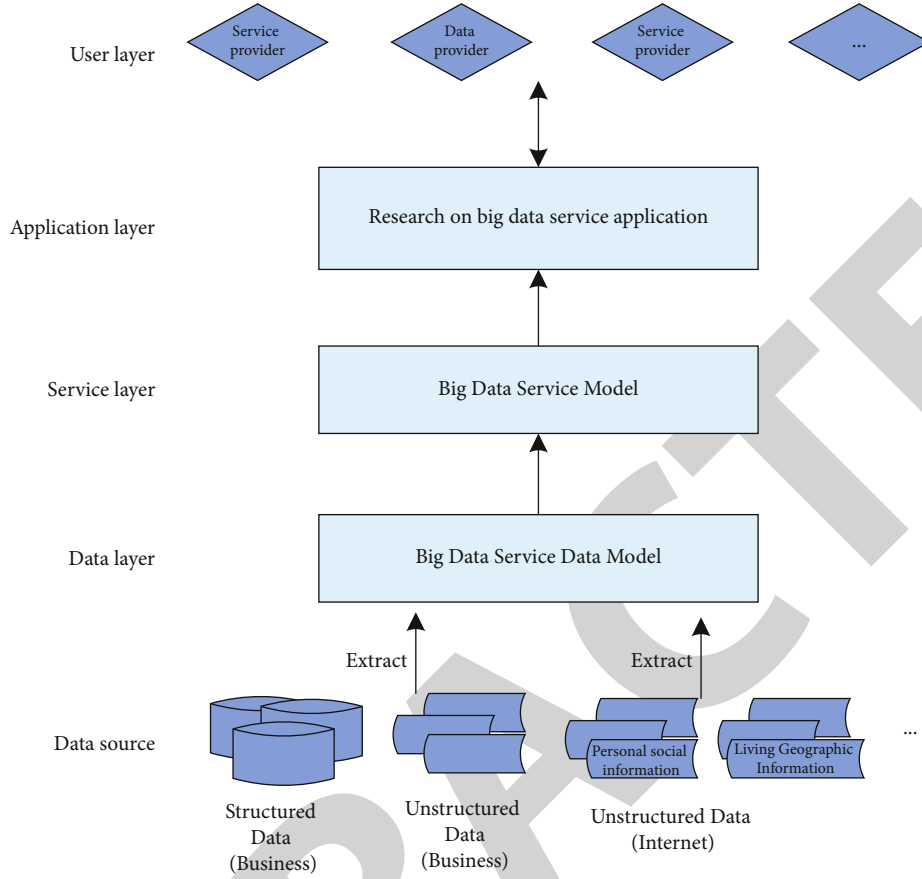


FIGURE 1: Big data service framework.

access to these databases x, y is the number of databases that can only be accessed once in an access cycle, P_ϵ is the access probability, N_1 is the number of cycles in the recency-friendly mode, N_2 is the number of cycles of accessing the dataset in the frequency-friendly mode, and N is the number of cycles of the entire access process [22].

Big data services are independently deployable functional units with clear contracts and independent functions. Figure 1 is the service framework of big data, and the application requirements for big data services are shown in Figure 2.

A big data service is a triple $\langle ID, Prof, Endp \rangle$, where ID is the identifier of the big data service. $Prof$ represents the functional description provided by the service, such as service provider and privacy policy. $Endp$ is a collection of endpoints that big data services interact with the outside world.

$Func_i$ is a set of related operations for the i th endpoint to obtain data from the outside world, and the operation is denoted as f . $Extn_i$ is a set of related operations for the i th endpoint to provide data results to the outside world, and the operation is denoted as e . $Para_i$ is denoted as $Para_A f$, and the parameter related to $Extn$ is the output parameter $Para(e)$. $Cond_i$ is the behavior constraint of the i th endpoint; $Cond_i$ init, preCond, postCond, and effect represent the initial condition, precondition, postcondition, and service of the endpoint behavior, an event that will be fired after successful execution [23].

Let A and B be two big data services in the universe $Dom(U)$, U is a set of big data services, and the next is the same. If A and B satisfy the following conditions

$$\begin{aligned}
 & Dom(A) = Dom(B), \\
 & Pr\ of(A) \subseteq Pr\ of(B), \\
 & Emdp(A) \subseteq Emdp(B), \\
 & Sour(Emdp_A) = Sour(Emdp_B), \\
 & Func(Emdp_A) \subseteq Func(Emdp_B), \\
 & Extn(Emdp_A) \subseteq Extn(Emdp_B), \\
 & Para(e_A) = Para(f_B), \\
 & Trans(Emdp_A) = Trans(Emdp_B), \\
 & (Cond(Emdp_B) \Rightarrow Cond(Emdp_A)) \text{ or } = (Cond(Emdp_B) \Rightarrow Cond(Emdp_A)),
 \end{aligned} \tag{5}$$

then B is said to be a derivation of A , denoted as $extend(B, A)$. “ \Rightarrow ” is the implication of eternal truth.

Let A and B be two big data services in the universe $Dom(U)$, if

$$\exists e \in Extn(Emdp_A) \wedge \exists f \in Func(Emdp_B), \tag{6}$$

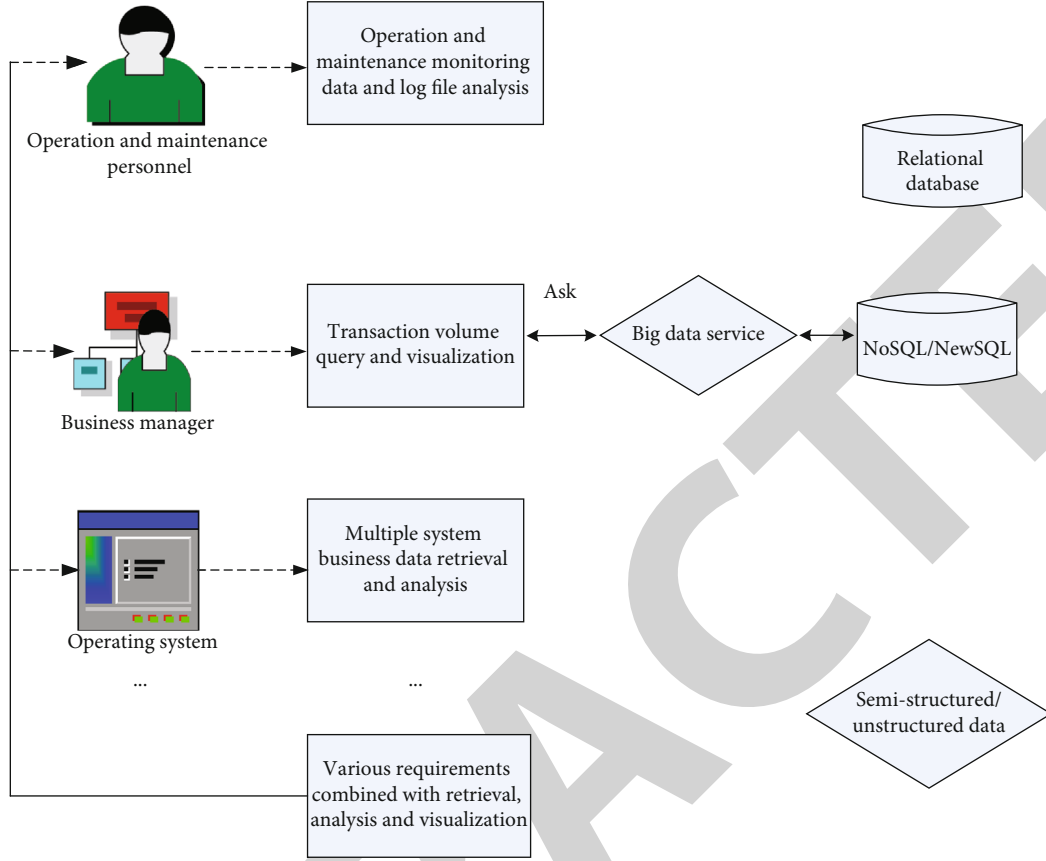


FIGURE 2: Application requirements for big data services.

making

$$[\text{preCond}(\text{Endp}_A) \wedge \text{preCond}(\text{Endp}_B) \wedge (e \Rightarrow f)] \wedge [\text{Para}(e) = \text{Para}(f)]. \quad (7)$$

That is, big data service A inputs its own output result into a function of big data service B ; then, it is said that big data services A and B are combined sequentially, denoted as $A \longrightarrow B$.

$A \longrightarrow B$ is still a big data service, which satisfies the following properties:

$$\begin{aligned} \text{Dom}(A \longrightarrow B) &= \text{Dom}(A) \cup \text{Dom}(B), \\ \text{Pr of}(A \longrightarrow B) &= \text{Pr of}(A) \cup \text{Pr of}(B), \\ \text{Endp}(A \longrightarrow B) &= \text{Endp}(A) \cup \text{Endp}(B), \\ \text{Sour}(\text{Endp}_{A \longrightarrow B}) &= \text{Sour}(\text{Endp}_A) \cup \text{Sour}(\text{Endp}_B), \\ \text{Para}(e_{A \longrightarrow B}) &= \text{Para}(e_A) \cup \text{Para}(e_B), \text{Extn}(\text{Endp}_{A \longrightarrow B}) = \text{Extn}(\text{Endp}_B), \\ \text{Para}(f_{A \longrightarrow B}) &= \text{Para}(e_B), \\ \text{Trans}(\text{Endp}_{A \longrightarrow B}) &= \text{Trans}(\text{Endp}_A) \cup \text{Trans}(\text{Endp}_B), \\ \text{Cond}(\text{Endp}_{A \longrightarrow B}) &= \text{Cond}(\text{Endp}_A) \cup \text{Cond}(\text{Endp}_B). \end{aligned} \quad (8)$$

4. Experiments and Result Analysis of a Big Data-Based Higher Education System

The application and practice of higher education management also have a great impact on students' status in teaching, learning process, and various learning methods. This chapter analyzes the impact of higher education management based on big data on teaching effects from the perspectives of students and teachers. From the perspective of students, it mainly analyzes the academic performance of students, as well as the interviews and questionnaires after the implementation of higher education management [24].

4.1. Student Academic Performance. The purpose is to test the application effect of big data in personalized higher education management; this study selected two groups of test scores for comparative analysis. The subjects of the experiment were students of grade 2019 in a certain university, of which class 271 was the experimental group and class 272 was the control group. The data were presented through personalized higher education management based on big data and the use of SPSS 24 to analyze the academic performance of the two classes.

- (1) Comparative analysis of the two groups

TABLE 1: Proportion of the two groups.

All candidates	Excellent		Good		Qualified		Failed	
	Total	Proportion	Total	Proportion	Total	Proportion	Total	Proportion
All candidates	40	33.3%	41	34.2%	13	10.8%	26	21.7%
Class A of 2019	22	36.7%	18	30%	6	10%	14	23.3%
Class B of 2019	18	30%	23	38.3%	7	11.7%	12	20%

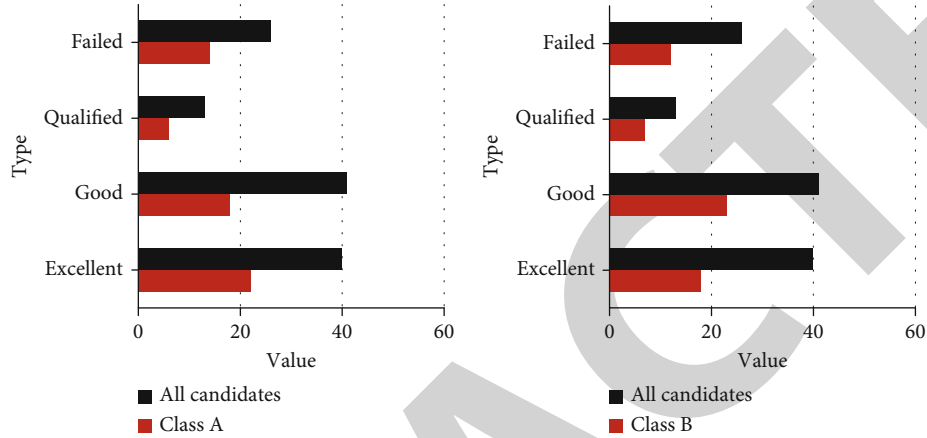


FIGURE 3: Comparison of the proportion of the two groups.

TABLE 2: Group statistics.

	Class	N	Mean	Standard deviation
Score	Class A of 2019	60	90.4	20.5
	Class B of 2019	60	89.3	18.4
Different	N/A	0	1.1	2.1

TABLE 3: Independent sample T-test.

Variance equation Levene test		F	Sig	t	DF	T-test of mean variance		
						Sig. (double tail)	Mean difference	Standard error value
Score	Assuming equal variance	0.14	0.7	0.6	97	0.6	2.3	3.9
	Assuming unequal variance			0.6	96	0.6	2.3	3.9

Table 1 and Figure 3 show the calculation of mock test scores. Among them, the average score of class A was 90.4 points, and class B was 89.3 points. Class A is 1.1 points higher than class B. Personalized higher education management based on big data divides students' grades into four grades: excellent [102, 120], good [84, 102), qualified [72, 84), and unqualified (0, 72). In this thorough test, the number of students in class A in the excellent range was 22 higher than the 18 students in class B. The number of students in class A in the good range was 18, which was lower than the 23 students in class B. Based on this, although there are differences between the two groups, the overall results of the two classes are not significantly different. In the next analysis, SPSS 24 is used.

An independent sample T-test was conducted on the scores of class A and class B with the help of SPSS 24. Tables 2 and 3 are test and analysis data.

Through SPSS analysis, the average scores of class A and class B were 90.4 and 89.3 points, respectively, and the average score of class A was 1.1 points higher than that of class B. Tables 2 and 3 show that with the help of SPSS test results, $F = 0.14$, $P = 0.7 > 0.05$, and the variance is homogenous. The T-test result $\text{Sig} = 0.6 > 0.05$ indicates that there is no significant difference in the scores of the two classes in the basic test [25].

- (2) Comparative analysis of the final exam results between the two groups

TABLE 4: Proportion of final exam scores of two groups.

All candidates	Excellent		Good		Qualified		Failed	
	Total	Proportion	Total	Proportion	Total	Proportion	Total	Proportion
All candidates	56	46.7%	48	40%	9	7.5%	7	5.8%
Class A of 2019	31	51.7%	25	41.7%	3	5%	2	3.3%
Class B of 2019	25	41.7%	23	38.3%	7	11.7%	5	8.3%

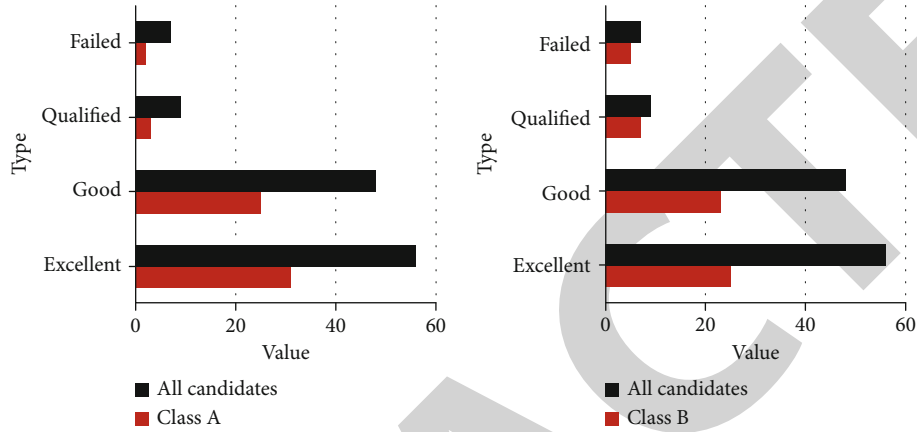


FIGURE 4: Comparison of the final grades of the two groups.

Table 4 and Figure 4 are the statistical results of the final exam results. Among them, the average grade of class A at the end of the term is 100.3 and that of class B is 95.3. The average grade of class A students in 2019 is 5 points higher than that of class B. The personalized higher education management based on big data divides students' performance into four grades, which are consistent with the previous article. In this final grade, 31 students in class A are in the excellent range, which is higher than 25 students in the control group; the number of A class grades in the good range is 25, slightly higher than the 23 in the class B; the number of people in the qualified range of class A is 3 lower than the 7 students of class B; the number of class A in the unqualified range of 2 people is slightly lower than the 5 people in class B. Based on this, class A is generally better than class B, so the performance of the experimental group has improved compared with that of the control group. Use SPSS 24 to conduct a scientific test of the analysis.

Verifying the scientificity of the viewpoints and analyzing the results of the two classes, with the help of SPSS 24, an independent sample *T*-test was performed on the scores of class A and class B. Tables 5 and 6 are the detection and analysis data.

Through SPSS analysis, the average of the final exam scores of class A is 100.3, and that of class B is 95.3; the average grade of students in class A is 5 points higher than class B [26]. Using SPSS software, the results are shown in Figure 5. Among them, $F = 7.1$, $P = 0.01 < 0.05$, and the variance is unequal. $\text{Sig} = 0.048 < 0.05$ means that there is a significant difference between the final grades of class A and class B. That is, there is a significant difference in the performance of individualized higher education management

TABLE 5: Group statistics.

	Class	<i>N</i>	Mean	Standard deviation
Score	Class A of 2019	60	100.3	10.5
	Class B of 2019	60	95.3	13.5

using big data, indicating that the individualized higher education management under this model has improved the performance of students.

By analyzing the results of the two groups in the thorough examination and final examination, we can know that under the condition that the learning materials and learning content are consistent, before applying the personalized higher teaching management based on big data for management, by testing the results of the two groups in the basic test, it was concluded that there was no significant difference between the two groups [27]. After conducting advanced teaching management on the experimental group and analyzing the data obtained again, the result is obvious: the academic performance of the experimental group is significantly higher than that of the control group. The experimental results show that the management model proposed in this paper can well promote the learning effect of students.

4.2. *Student Interviews and Questionnaires.* Conduct follow up interviews with the students in the experimental group and distributed questionnaires to further test the practical effect of higher education management. Among them, 60 questionnaires were distributed, all of which were valid. Part of the content of the questionnaire is shown in Figure 6.

TABLE 6: Independent sample T-test.

Variance equation Levene test							T-test of mean variance	
		F	Sig.	t	DF	Sig. (double tail)	Mean difference	Standard error value
Score	Assuming equal variance	7.1	0.01	2.0	98	0.048	5.0	2.5
	Assuming unequal variance			2.0	83.4	0.048	5.0	2.5

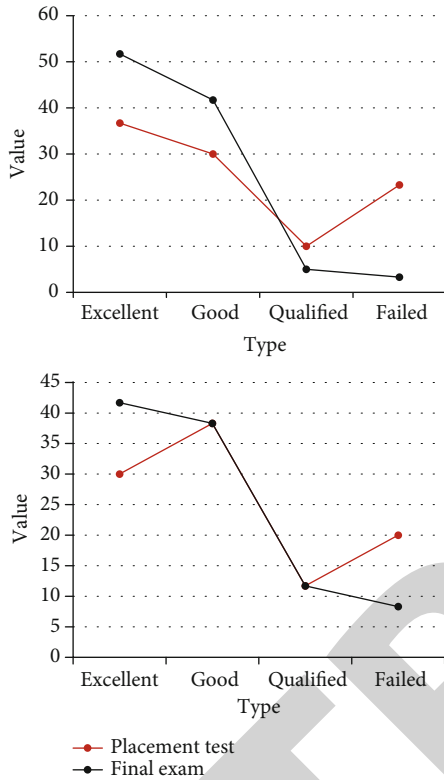


FIGURE 5: Comparison before and after the proportion of mock exams and final exams in the two groups.

58% of the students were satisfied with higher education management, and they recognized higher education management, believing that this management can effectively promote the improvement of their abilities in all aspects. 59% of students are satisfied with the different types of preview resources provided by teachers, indicating that the preview resources of higher education management preview resources have well satisfied the students' learning needs and improved the preview effect [28]. The rehearsal module of knowledge points is very helpful for learning, 61% of students agree, and most students believe that the system collects the wrong knowledge points and pushes related exercises, which can help them conduct targeted review and quickly eliminate weak points. In terms of learning interaction, 52% of students feel that it is very helpful to communicate in the discussion area; the students think that the management mode promotes the interaction between everyone. This shows that the interactive function under this management promotes communication and connection between all people; it is convenient to help students solve various problems and improve their cooperation ability.

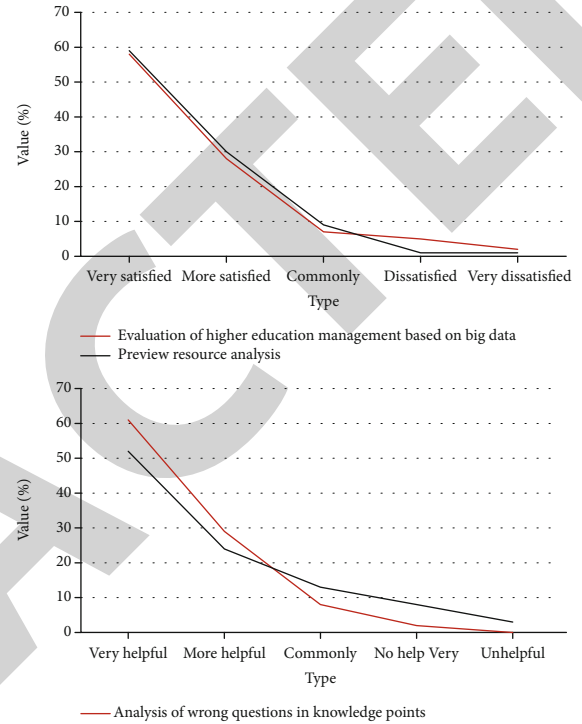


FIGURE 6: Views on higher education management based on big data.

4.3. Experimental Analysis of Higher Education Management Based on Big Data. Through the comparison of student performance, interviews, and questionnaire analysis, it seems that the vast majority of students and teachers affirm the management and it can fully mobilize students' enthusiasm for learning. Through this system, teachers can promote different learning resources and content for students and contribute to their individualized development. At the same time, students can control the acquisition of every bit of knowledge through higher education management and discover their shortcomings through self-study. Looking about real-time data during the learning process, teachers and students can help them adjust their teaching strategies and learning methods in a timely manner.

This chapter focuses on analyzing the effect of implementing personalized higher education management, using SPSS statistical analysis tool to compare the results of mock exams and final exams between the two groups, to understand student satisfaction with personalized higher education administration through interviews and questionnaires, which verifies that personalized higher education management can provide teaching and play a role in teaching to promote student learning.

5. Discussion

Through the study of relevant knowledge points of literature works, this paper has initially mastered the relevant basic knowledge and discussed the development of “Internet +” and all social strata in the era. Then, it introduces the relevant theories and definitions of “Internet +,” big data, and higher education and analyzes in detail the methods of big data services on “Internet +,” laying a foundation for the study of higher education management in the “Internet +” era. Then, the experimental analysis of the case design of higher education management based on big data is carried out, which verifies that the personalized management of higher education can realize teaching and promote the improvement of students’ academic performance.

On the existing research content about “Internet +” and higher education, the article analyzes and summarizes the concepts of big data, Internet +, and higher education. After analyzing the big data service method technology, the case design of higher education management based on big data is deeply studied. The teaching quality under the management is verified through the analysis, thus proving the effectiveness of the management system.

The implementation of large-scale data technologies makes the communication channels created on the network clearer and supports the optimization and upgrading of resources. Actively incorporating big data, adapting to the new era through higher education management, not afraid of new difficulties, and overcoming new problems are the inevitable new normal and new trend faced by university education; it is also the first step in the upgrading of traditional education of “digitization” and “data.”

6. Conclusions

Without information, it is impossible to reconstruct the real society, industry, and life from the moral, cultural, institutional, cultural, and other aspects. During this transition, data culture is especially important. Against this background, college education management is facing changes. Through the comprehensiveness, freedom, and individuality of human beings; the reconstruction of values; the reconstruction of structure; and the reconstruction of culture, the internal quality of education has been qualitatively improved. This change is caused by teaching reform, and school management reform has promoted the reform of higher education. The main purpose of this research is to fully pay attention to the value of big data in colleges and universities and avoid the technical risks of big data. In this study, the research is more of a theoretical reflection, the research on innovative countermeasures is not enough, and there are many practical and theoretical problems that need to be further solved.

Data Availability

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Conflicts of Interest

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