

Research on the comprehensive Literacy test and evaluation of English course students based on cloud education big data

Zhouhui Xu

Technician College of Liaocheng City

xuzhouhui09@126.com

Abstract. In the innovation and development of modern education, the Internet, big data, cloud computing and so on have had a profound impact on the implementation of college English education curriculum. Especially after the development trend of economic globalization, college English courses pay more attention to optimizing the comprehensive quality of students in the face of the new talent training requirements put forward by the development of social and economic construction. Through the questionnaire survey, the main problems in the field of education are to study the current content of college students' comprehensive English quality test and evaluation, actively explore the test and evaluation path of students' comprehensive English quality under the background of big data, and clarify the implementation countermeasures of future college English courses according to the development trend of cloud education big data technology. On the basis of understanding the development status of cloud education big data technology, this paper constructs the testing and evaluation system of students' comprehensive quality from various aspects, such as motivation, attitude and quality, according to the requirements of English course students' comprehensive literacy training, and finally puts forward clear education management measures.

Keywords: Cloud education; Big data; English courses; College students; Comprehensive quality

1. Introduction

After The State Council proposed the Program of Action to promote the development of big data, it regarded big data as a data set with multiple types, fast storage speed and high application value. Scholars in various fields put forward a number of contents in the study of big data technology, such as distributed database, scalable storage system, massively parallel processing database, distributed file system and so on. In the field of education, the application and development of big data technology is mainly reflected in the screening of massive information, data analysis, summary and induction, and finally more valuable information resources can be obtained. From the perspective of the construction and development of modern society, English, as an international language, is one of the important courses to cultivate talents in college education. It has been significantly influenced by information technology. Most information resources can be directly shared and applied on the network platform, which has gradually changed the implementation mode of traditional education work and provided more channels for teachers and students to obtain educational resources. [1-3] Nowadays, a large number of learning software related to English courses have emerged in the market, which provides a good independent learning environment for English learners at different stages, but also brings many challenges to traditional English teaching activities. Under the background of big data technology, English educators should start from the actual needs of education, fully demonstrate the advantages of big data technology, rationally recommend English major courses, and comprehensively evaluate the comprehensive quality of students, so as to provide effective basis for education innovation and exploration, and continuously improve the quality of college English teaching.

With the development trend of economic globalization, international trade and cultural exchanges have become increasingly close. As a language of international communication, English has attracted wide attention in the field of education in China. According to the accumulated experience of college English course education in recent years, traditional teaching methods and teaching concepts have been unable to meet the needs of modern education. Professional teachers should, on the basis of changing traditional teaching concepts, actively use rich teaching techniques

and teaching methods, and regard the cultivation of students' comprehensive literacy as the ultimate goal. In essence, the comprehensive quality of English majors refers to the students' comprehensive ability to use English. As there are many problems in college English teaching at present, students do not have much theoretical knowledge and language skills, and their ability to use listening, speaking, reading and writing fails to meet the expected requirements. In 2012, the United Nations officially released the white paper "Big Data for Development: Challenges and Opportunities", which clearly pointed out that the era of big data has arrived and the emergence of big data will have a profound impact on the development of the whole society. As the first country to study the application of big data, the United States released the "No Child Left Behind" education program in 2001, which promoted the application of big data in the field of education. Meanwhile, the "Big Data Research and Development Proposal" was released in March 2012. Taking the application of big data in the adaptive learning system as an example, it clearly proposed to improve the ability to apply big data in the field of education, and started to actively seek a new road of education development. In the same year, the relevant report "Promoting Teaching through Education Data Mining and Learning Analysis" was released. Education data mining, personalized learning analysis, teaching data cases and so on are clearly proposed. Cloud education gradually gets rid of the boundaries of traditional education informatization, and puts forward a new concept of education informatization, which organically combines teaching, management, learning, entertainment and other contents together, so that different groups such as education departments, colleges and universities, teachers, students and parents can complete tasks in the same learning platform. According to the practical survey, the investment scale of cloud education in the first half of 2021 reached \$1.7 billion, down 45.69% compared to the same period last year; In 2020, China's education and training market reached 25.609.6 billion yuan, up 27.40% year on year. According to actual projections, the market scale of education and training in 2021 will reach 2.214 billion yuan, a decrease of 11.80% compared with the same period. After our country officially enters the intelligent development stage of education informatization, advanced technologies such as artificial intelligence, big data and Internet speed up the pace of cloud education development. Especially after the outbreak of star officer pneumonia in 2020, public education institutions and private education enterprises jointly held the world's largest online education experiment. On this basis, the innovation pace of big data technology in education is getting faster and faster. On the basis of understanding the development status of cloud education big data technology, this paper defines how to cultivate the comprehensive quality of English majors in the future according to the design of the comprehensive literacy test and evaluation system for English students.[4-6]

2. Method

2.1 Data Collection

To evaluate students' comprehensive quality in college English courses, we should pay attention to the collection of education-related content from multimedia equipment, network servers, campus websites and other software programs. Based on the analysis of data source channels as shown in the figure below, it can be seen that the current cloud-based education platform for colleges and universities contains multiple application modules such as task-driven, teaching demonstration and teaching discussion, which comprehensively cover different application scenarios of teachers and students before, during and after class, providing sufficient space for education and learning for teachers and students in colleges and universities.[7-8]

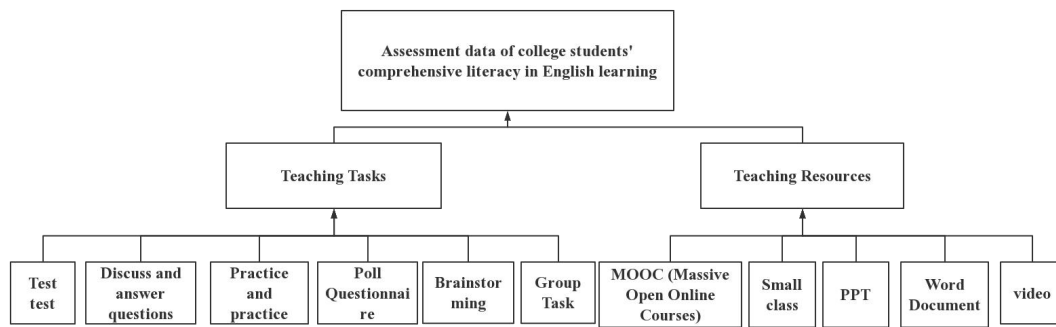


Figure 1 Main sources of measurement data

From the perspective of curriculum education, the test data of teaching tasks can fully show the learning effect of students during the teaching period. Discussion and question-answering and training can help teachers quickly understand the speed of students to complete the task; The modules of group task and brainstorming reflect the students' consciousness ability of independent learning and cooperative exploration. By systematically recording and analyzing the click probability of teaching courseware such as videos, materials and micro-lessons, students' interests, learning scope and learning problems can be quickly understood. After collecting and accumulating certain data information, the system platform will convert the recorded results into visual information, and the quantitative analysis process is shown in Figure 2 below:

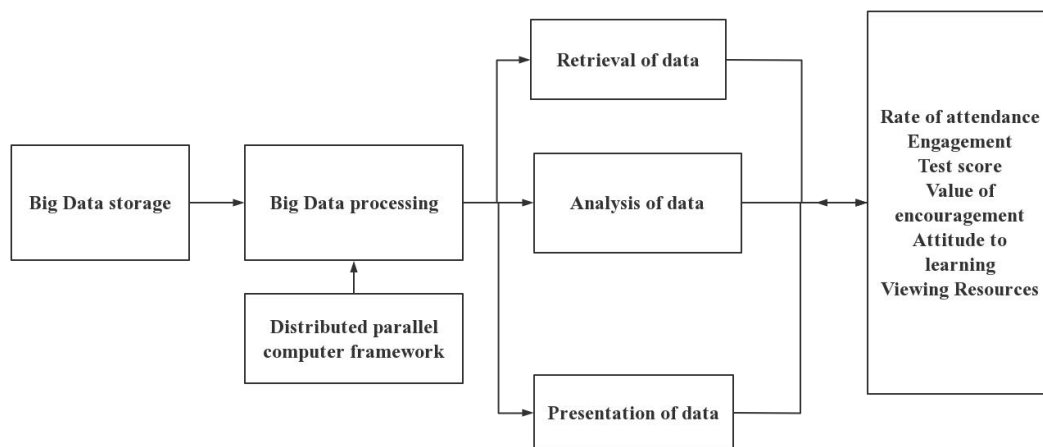


FIG. 2 Flow chart of quantitative analysis

Based on the above analysis, it can be seen that this operation can shift the focus of education data collection to unstructured and process-based, and focus on providing effective information resources to university administrators and professional teachers, so as to adjust practical education programs.[9-11]

2.2 Field Investigation

In order to get a better understanding of the comprehensive quality assessment results of college English students, this paper conducted a sample survey on the first-year students of colleges and universities in a certain area, and finally 550 students participated in the experimental analysis, among which the male students accounted for 69% and the female students accounted for 31%. The final experimental results show that there are many ways to evaluate the comprehensive quality of college students at present, but it is mainly dominated by the evaluation of professional teachers and assisted by mutual evaluation and independent evaluation of students. In the evaluation of students' comprehensive quality, professional homework occupies a high proportion, followed by classroom performance and mid-term and final exam results. According to the questionnaire, more than 90%

of the students support the evaluation and analysis through the organic integration of computer assessment and teacher subjective assessment. The specific results are shown in Table 1 below:

Table 1 Results of the questionnaire

The problem	options	frequency	Percentage
(1) What are the main ways that English teachers evaluate you? (Multiple choice)	Evaluation of teachers	484	88%
	Peer evaluation	303	56%
	Self evaluation	261	47%
	Other ways	62	11%
	Not clear yet	30	5%
(2) English teacher vs Your review content package All those things? (Multiple choice)	Performance in Class	411	75%
	Normal time test	388	71%
	Mid-term final test	421	77%
	Discipline, attendance	375	68%
	Synthesis of operations	509	93%
	Other ways	52	9%
	It's not clear	26	5%
(3) What kind of way do you want teachers to combine big data to evaluate English ability? (Multiple choice)	Subjective measurement and computers	505	92%
	Subjective assessment	23	4%
	Computer evaluation	22	4%

However, when learning about the students who do not support it, it is found that the overly unified technical standards ignore the differences in English ability of students in different regions, and do not fully consider students' technical means, cultural thoughts and other issues. Therefore, how to build and promote the comprehensive evaluation system with cloud education big data as the core and pay attention to the construction of multi-dimensional evaluation content is the main problem in the current exploration of education innovation.[12-15]

2.3 Construction Path

First of all, we should make full use of cloud platform to build a multi-dimensional evaluation system. The traditional evaluation work pays more attention to the study of students' ability level, but neglects the mastery of knowledge, understanding and skills. However, education in the era of big data will not only transfer professional theoretical knowledge to students, but also combine practical teaching activities to cultivate students' excellent quality. Therefore, assessment work should go beyond traditional assessment standards, integrate voice, video and other methods to create a high-quality learning atmosphere of situational integration, and learn to complete assessment work in a dynamic situation. At the same time, students' learning motivation, behavior habits and quality of consciousness should be regarded as one of the basic standards for evaluation, requiring teachers to dig more valuable data information in long-term observation.

According to the survey of students' intention to evaluate their comprehensive English ability as shown in Table 2 below, 94% of students want to evaluate their listening, speaking, reading, writing and translating skills. Therefore, modern colleges and universities need to increase the number of tests of individual skills and use computer technology to choose comparison or numerical comparison to improve the accuracy of test results.

Table 2 Survey results of students' intention to evaluate comprehensive English ability

The problem	options	frequency	Percentage
(5) From what aspects do you think teachers should evaluate English ability? (Multiple choice)	Listening, speaking, reading, writing and translating skills	519	94%
	Intercultural communication skills	349	63%
	Critical thinking ability	330	60%
	Communication skills	483	88%
	Other ways	81	15%

3. Result analysis

Results From the analysis of the cloud service big data structure chart as shown in Figure 3 below, it can be seen that after clarifying the evaluation system of comprehensive literacy of English course students, we should pay attention to the following aspects to actively cultivate the English literacy of college students: First of all, students should master the comprehensive language ability, which includes language knowledge, language skills, language awareness, oral expression and written expression. Professional teachers should use heuristic language and rich emotional colors to create an entertaining language learning environment for students, encourage and support students' communication, and gradually form the consciousness of independent learning. Secondly, cultivate good ideological quality actively. The quality of thought includes reasoning, judgment, rationality and other contents. Professional teachers should study professional textbooks before the formal class, make use of diversified teaching methods, and actively cultivate students' logical, creative and critical thinking, so as to ensure that they have the awareness and ability to think from multiple perspectives. Finally, focus on cultivating students' cultural quality. In college English teaching, the most important thing is to cultivate students' excellent cultural quality, clearly recognize the cultural differences between Chinese and western countries, and master more English knowledge and language skills on the basis of respecting and appreciating diversified foreign cultures, so as to lay the foundation for social environment.

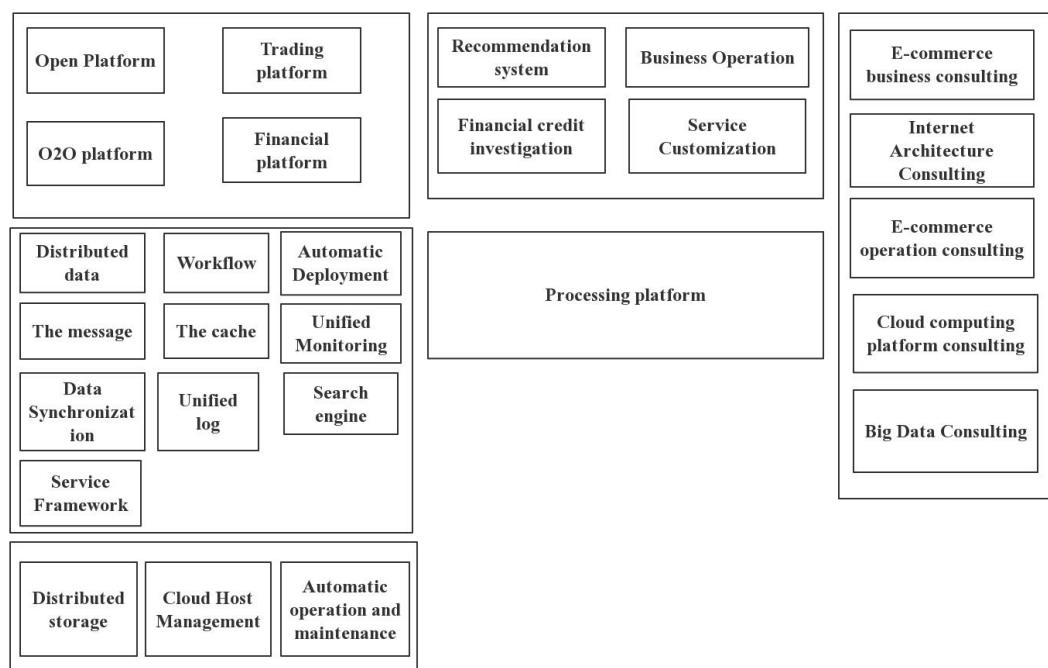


Figure 3. Structure diagram of cloud service Big data technology

Conclusion

In summary, combined with the analysis of the comprehensive literacy assessment system of English course students based on big data of cloud education proposed in this paper, it can be seen that under the background of modern education reform, in order to fully display the advantages of English education reform and cultivate more outstanding talents for social construction and development, college teachers should change the traditional education concept on the basis of It integrates and uses many technical theories such as big data, cloud computing, cloud architecture and artificial intelligence, actively participates in skill training activities provided by the society or universities, gradually optimizes its professional quality and comprehensive ability, and focuses on building an excellent education management environment for students. At the same time, it is necessary to increase the way to evaluate the comprehensive quality of English students, learn from the advanced educational research results of foreign countries, so as to find the existing problems in education management faster, and scientifically adjust the practical education management plan.

References

- [1] Bo Li , Zhenrong Xiong, Ying Zhang, et al. Study on the Influence of ICT Level on Individual Scientific Literacy of Students in Developing Countries: Based on PISA data. *Educational Measurement and Evaluation*, 2020(1):11.]
- [2] Lin Shen. Research on Core Literacy of English Subject and Classroom Teaching Reform in the Era of Big Data [J]. *Journal of Chongqing Electric Power College*, 2021(4):56-58.
- [3] Weihua Wu , Jifang Cui , Jinying Song , Mingyu Zhao. Research on Data literacy education of University libraries under Big Data environment [J]. *Journal of Hebei United University (Social Sciences Edition)*, 2020, 020(001):42-46,62.
- [4] Xiangbin Yao . Research on the Comprehensive Quality Evaluation System of Primary and Secondary School Students Based on Big Data -- A Case Study of Hubei School in Songshan, Dongguan City [J]. *Educational Information Technology*, 2022(6):3.
- [5] Liangyu Yin . Research on the development of testing and Evaluation Literacy of College Foreign Language teachers under the background of Big Data [J]. *Journal of Chongqing Electronic Engineering Vocational College*, 2022, 31(4):5.
- [6] Yuhuan Zhang , Jiahui Wu. Study on the Comprehensive Quality Evaluation of Compulsory Education students in France [J]. *Journal of Comparative Education*, 2022(3):14.
- [7] Xiaowei Zheng,Wenliang Tang . School-based construction and implementation of "Multiple Growth" evaluation system under Big data [J]. *Educational Perspectives*, 2021(16):4.
- [8] Tianbao Gong. The application of Internet in high school English Teaching under the background of Core Literacy [J]. *Woman Fang (New Era Education)*, 2021, 000(019):P.1-1.
- [9] Xi wang.Research on High School English Precision Teaching Based on Big Data from the perspective of Core Literacy [J].*English for Middle School Students*, 2021, 000(010):P.41-41.
- [10] To build an army on behalf of the army. Measurement of College English Learning Engagement based on Big data analysis [J]. *English Square: Academic Research*, 2020(30):3.
- [11] Yasong Yang . Research on Deep Integration Strategy of Big Data Technology and Information Technology Education Major [J]. *Journal of Jinan Vocational College*, 2022(3):4.
- [12] Nian Tao . A study on the effect of cloud classroom Reading teaching of Independent College English based on CSE [J]. *English on Campus*, 2020(40):2.
- [13] Lei Zhou . Discussion on College English Teaching Model under the Background of Big Data Technology -- Review of English Writing Teaching and Research in the Era of Big Data [J]. *China Test & Measurement*, 2020, 46(10):I0019-I0019.

- [14] Xu Jiang,Ci Song . Research on Ideological and Political Education Innovation of Higher Vocational Students in the era of Big Data [J]. New Generation: Theoretical Edition, 2021, 000(020):P.1-2.
- [15] Dan Wang,Dongmei Wang ,Xiaohong Hu . Research on online Learning evaluation System of Colleges and Universities based on Learning analysis [J]. Journal of Beihua University: Social Science Edition, 2022, 23(3):9.