

Innovative Analysis of College English Teaching Mode under the Background of Big Data

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Abstract: The impact and influence of big data (BD) on ideological and political education (IAPE) in colleges and universities. This research mainly discusses the innovation of college English teaching (ET) mode under the background of BD. First of all, pre-class teachers push teaching resources to students based on the students' existing knowledge base, so that students can learn the teaching resources on the teaching platform before class, and feedback through the BD information platform, which can effectively filter out the difficulties of knowledge. This is the first round of internalization of knowledge before class, allowing students to initially form the embryonic form of the knowledge system. Secondly, in the teaching process, teachers can form a cooperative inquiry study group based on the key knowledge points, difficulties and blind spots of the students' knowledge screened in the pre-class links to guide and help students to explore the problems in depth, and further improve the knowledge system. In the question "Do you like English teachers teaching using BD technology", more than 85% of the students chose to like it very much or prefer it. This research helps to improve the application of BD in teaching.

1. Introduction

The understanding of BD should not only be grasped from the technical level in the general sense, but also the essence of its connotation, and the value and significance of BD as a resource and concept must be recognized. At the same time, we must fully grasp the motivations that promote the development of BD in order to make better use of this innovative intermediary in the process of integrating BD in IAPE in colleges and universities.

With the rapid development of BD on a global scale and the application of BD in universities in various countries, the combination of BD and education is increasingly unfolding, and the

traditional education model is continuously transformed and upgraded with the help of BD [1-2]. The innovative appeal of IAPE in my country's colleges and universities under the new situation is also inseparable from the examination and application of BD [3-4]. The in-depth integration of "human-machine-things" has produced massive amounts of data and information, which provides a brand new vision of observation and practice space for the innovation of IAPE in Chinese universities [5-6]. The new curriculum reform is based on the development of people. In addition to paying attention to academic performance, it also pays attention to the development of students' personality, emotions, and morality, and strives to cultivate people who are fully developed in moral, intellectual, physical, beautiful, and labor[7-8] . In order for students to develop in an all-round way, naturally they cannot spend all their time on scientific knowledge, but the necessary knowledge learning cannot be reduced, so it is very urgent to improve the effectiveness of subject teaching. To improve teaching effectiveness, teachers should make accurate evaluations of students' actual situation and give accurate positioning, so as to find out the classroom teaching content suitable for students, design the most suitable teaching methods, and save unnecessary teaching investment. Conducive to the cultivation of all-round development of students [9-10].

It can be learned that college ET innovation in the context of BD is a process of taking BD as a new intermediary and integrating it into college ET. In the practice of college ET innovation under the background of BD, the subject of innovation is college ET, the object of innovation is BD, and the intermediary connecting the two is BD resources, BD technology and BD concepts. In the final analysis, college ET innovation in the context of BD is a process of scientific use of BD resources in college ET, full mining of BD technology, and full integration of BD concepts.

2. College ET Mode

2.1. BD

BD is a resource. In the information age, Google can complete the prediction of influenza by observing the records people search on the Internet; the Fare cast system can help predict the price of domestic flights in the United States through the records of massive prices; e-commerce can be based on the user's e-commerce website or the records of browsing, collecting and purchasing on the consulting media are "portraits" of users, which can guide better crystal production design and marketing strategies. BD is a thinking concept. BD is the source of people gaining new cognition and creating new value; while it is transforming society, it is also changing our habitual thinking and handling mode, that is, our way of thinking. In the massive data of BD, each piece of data is in a more equal position; in the BD environment, society has become a transparent and open society, and the sharing and sharing of data has become a consensus; in the BD model, data There is no longer a simple and direct linear causal relationship with data; the help of BD technology makes the data in the era of BD no longer fixed and static, and so on, showing the full sample, complexity, and relevance of BD Thinking mode. This mode of thinking has a significant impact on changing the traditional mode of thinking that people understand and understand the world.

The potential energy of BD resources can be expressed as:

$$dH = f(dv, dp, dM) \quad (1)$$

Among them, dH is the change of the potential energy of BD resources, and dM is the change of the potential energy of BD resources. According to system resource optimization configuration requirements, let:

$$p(t) = \sum_{i=1}^n p_i F_i \quad (2)$$

$$p_i = e^{-rt} [a_1 p_s + a_2 p_E + a_3 p_0] \quad (3)$$

Among them, p_i is the value of BD asset F.

2.2. ET

In the process of consolidating English learning after class, students build on the basis of the previous teaching links, and solve practical problems according to their own learning interests and practical exploration after class, and on this basis, they still have learning problems and personal deficiencies. Carry out personalized and targeted consolidation review. This link is the third round of knowledge internalization of smart classroom teaching. On the basis of existing knowledge internalization, after-class consolidation is the sublimation and expansion of knowledge. After these rounds of progressive internalization of knowledge, the learning results will be more stable and firm, and the real construction of the knowledge system will finally be realized, To achieve the ultimate goal of achieving smart teaching.

3. Innovative Experiment of College ET Model

3.1. Teaching Objectives

ET should organize students' inquiry-based teaching, create situations for students, encourage students to observe, think, and ask questions on their own; combine in-class teaching with extra-curricular practical activities, reasonably apply BD technology, and make use of the links between disciplines. Facilitate the achievement of the core literacy of students' English subject.

3.2. Teaching Plan

First of all, pre-class teachers push teaching resources to students based on the students' existing knowledge base, so that students can learn the teaching resources on the teaching platform before class, and feedback through the BD information platform, which can effectively filter out the difficulties of knowledge. This is the first round of internalization of knowledge before class, allowing students to initially form the embryonic form of the knowledge system. Secondly, in the teaching process, teachers can form a cooperative inquiry study group based on the key knowledge points, difficulties and blind spots of the students' knowledge screened in the pre-class links to guide and help students to explore the problems in depth, and further improve the knowledge system. The BD precision teaching evaluation index system is shown in Table 1.

Table 1. Classroom BD teaching evaluation index system

Evaluation object	First-level indicator system	Secondary index system
Classroom precision teaching	Teaching condition	Academic analysis
		Lesson plan design
	Teaching process	Lesson plan implementation
		Teacher-student interaction
	Teaching effect	Student learning efficiency
		Student academic performance

4. College ET Mode

4.1. Survey Summary Analysis

Under the guidance and help of the teacher, a questionnaire "Usage Survey of College English Smart Classroom" was designed. A total of 23 questions were set. A total of 350 student questionnaires were distributed, and 339 valid questionnaires were returned. The questionnaire efficiency reached 96.9%. The summary results are shown in Table 2.

Table 2. Summary results

Variable	Options	Number of people	Percentage
Gender	Male	201	59.29%
	Female	138	40.71%
Grade	Freshman	177	52.21%
	Sophomore	162	47.79%
Test score	85 points or more	108	31.86%
	70-85 points	138	40.71%
	60-70 minutes	66	19.47%
	Below 60 points	27	7.96%

4.2. BD Application Analysis

In the question "Do you like English teachers using BD technology to teach?" In this question, more than 85% of the students chose to like it very much or prefer it, and less than 15% said that they did not like or dislike English language Data technology teaching. In the question "Do you want to continue to use BD technology in ET in the future?" 62.83% and 30.97% of the students expressed their hope or hope to continue using BD technology in subsequent ET. Teaching, and only 5.31% and 0.89% of the students who choose not to hope and do not want to choose. It can be seen that students are generally positive about the current English BD technology teaching, and even more than 90% of the students hope to continue to use BD technology in the subsequent ET process. This shows that students feel the help of BD technology teaching for their own English learning, and they have obtained a good learning experience in the teaching process of English BD technology teaching. At the same time, the modern information teaching mode is for the current freshmen. It is more advantageous for students on behalf of others, and students are also willing to accept it. Figure 1 shows the favorite degree of BD technology teaching. Question 7 is set for students to fully grasp this aspect of the teaching content of English BD technology. Among them, 30.97% of the students who can fully grasp the teaching content accounted for 30.97%, and 53.99% of the students chose this option. This means that the vast majority of students can basically master the teaching content in the learning process of English BD technology teaching. Nearly 15% of students said that they could not fully grasp the teaching content of English BD technology teaching. This situation cannot be ignored. This requires teaching staff to understand ET content in future English BD technology teaching and teaching. There must be more precise design, no matter the teaching capacity and teaching depth, there must be deeper considerations, and the teaching content must be continuously improved.

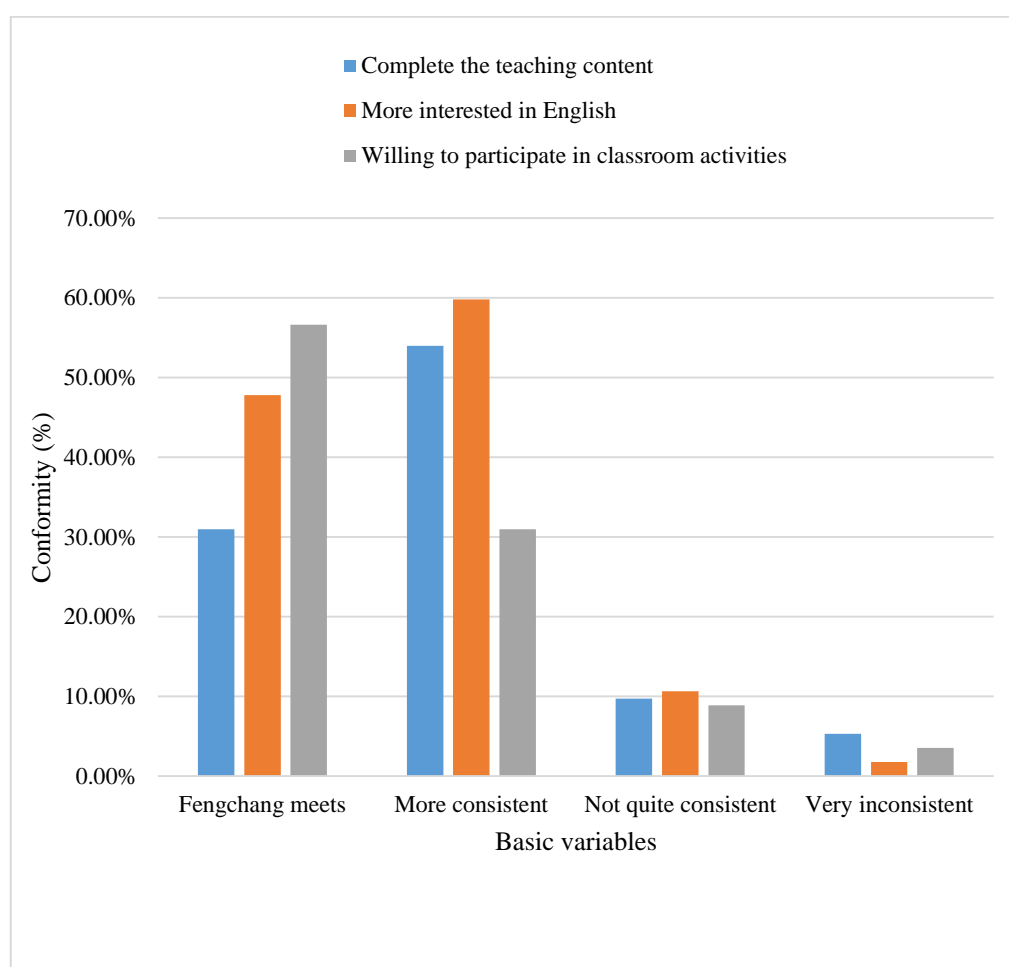


Figure 1. Favor of BD technology teaching

A survey is conducted on the reasons why students like English BD teaching. The question is a multiple-choice question with a total of six options, five of which are prescribed options and one is a free option. The survey results are shown in Figure 2. According to the survey results, the top three choices among the reasons why students like English BD teaching are: teaching is highly targeted and improving learning efficiency (82.25%); knowledge is intuitively explained, and the classroom is impressive (71.33%); Abundant knowledge capacity, master more knowledge (69.65%). This also reflects the more targeted teaching mode of English BD teaching. The teaching form of BD teaching is intuitive. Abundant teaching resources can not only broaden the breadth of students' knowledge, but also make students' knowledge no longer limited to regular content such as books and teaching materials. Students have an unprecedented learning experience and truly feel the help that BD teaching brings to their English learning. This is why students like English BD teaching and look forward to continuing to use English BD teaching in the future learning process. This shows that the current application of BD teaching in ET has been recognized by students, and has laid a certain foundation for the promotion of BD teaching in subsequent ET.

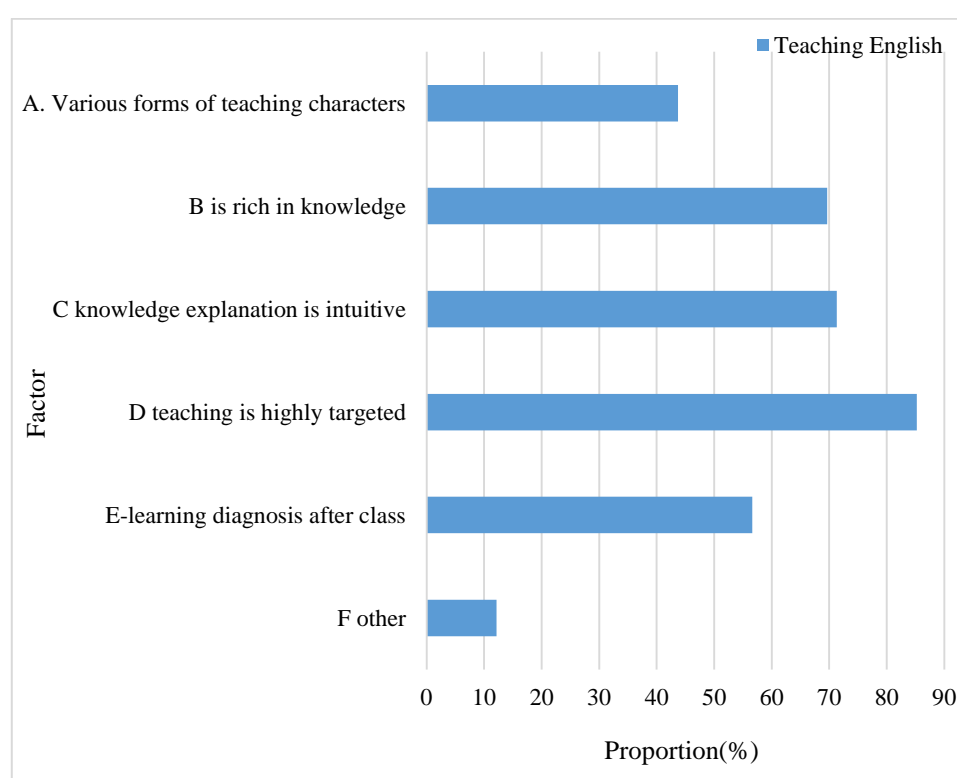


Figure 2. Reasons to like English BD teaching

5. Conclusion

First of all, pre-class teachers push teaching resources to students based on the students' existing knowledge base, so that students can learn the teaching resources on the teaching platform before class, and feedback through the BD information platform, which can effectively filter out the difficulties of knowledge. This is the first round of internalization of knowledge before class, allowing students to initially form the embryonic form of the knowledge system.

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Data Availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Conflict of Interest

The author states that this article has no conflict of interest.

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