Research on the Relationship Between Information Resources Utilization Ratio and College Ideological and Political Education Efficiency in the Era of Big Data

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Abstract—**Against the background of data development, in order to improve teaching effectiveness, most colleges and universities in China have been using various information-based education methods to update the existing education system. By observing the colleges and universities that have done this, we can find that the application of big data information resources can help greatly to improve the actual efficiency of college ideological and political education. Therefore, this paper focuses on the relationship between the information resources utilization ratio and the college ideological and political education efficiency in the era of big data and conducts in-depth research on the specific relationship and corresponding connotations.**

Keywords: the era of big data, information resources utilization ratio, college ideological and political education efficiency

I. INTRODUCTION

College ideological and political education focuses on cultivating students with correct ideological and political consciousness. Under the background of building a great Chinese dream, college ideological and political education teams must study how to improve their own teaching efficiency [1]. Moreover, more and more college ideological and political education teams have chosen to apply information resources which are of great advantages. Therefore, it seems to be of practical value to research on the relationship between them.

This paper mainly analyzes and researches in depth on the relationship between the information resources utilization ratio and the college ideological and political education efficiency in the era of big data, aiming to summarize the methods of improving the practical effects of college ideological and political education more efficiently so as to meet the macro requirements of the Party and the Ministry of Education of China for ideological and political education. Since information resources are diversified in the era of big data, this paper focuses on the flipped classroom teaching mode currently being applied by many colleges and universities and studies its relationship with the efficiency of ideological and political education, with a view to providing researchers and educators dedicated to ideological and political education with some ideas for teaching reform.

II. RESEARCH ON THE POSITIVE ROLE OF THE APPLICATION OF INFORMATION RESOURCES ASSISTED TEACHING METHODS IN THE ERA OF BIG DATA

A. Dynamic teaching methods which can help improve the quality of interaction in teaching

Contemporary college students prefer a dynamic logical mode of thinking. Therefore, when college teachers use dynamic methods of teaching, students' enthusiasm for cooperation is higher [2]. At the same time, contemporary students also attach great importance to their own subject consciousness. When teachers can value student-centeredness or try to give classroom learning initiative to students during teaching, students are often more positive when evaluating the course. The above-mentioned modes are not feasible in traditional ideological and political education [3]. However, with the assistance of information resources, teachers can assign preview tasks before class, allowing students to independently search for relevant information resources on the Internet. As a result, the time for information exchange in class will be effectively reduced, while the time for students' interaction with teachers will increase accordingly [4]. Therefore, it is of practical effect to apply information resources to complete traditional teaching methods and improve the quality of interaction in teaching.

B. Renewed teaching contents which might involve more true feelings in teaching

In the era of big data, information data resources can be used to solve the problem that the amount of information in the college ideological and political education system used to be too small. In the traditional ideological and political education system, teachers often use nothing but textbooks

as the core of teaching. Therefore, teachers are quite limited in teaching and interpretation, and most of the teaching contents are based on a fixed program and lack of characteristics of the times [5]. With the application of network information resources, teachers can maximize their selection of contents for ideological and political education. From astronomy and geography to affairs of the state and the people, all positive resources that can be found in the network can be applied in teaching [6]. Since contemporary college students prefer novel ways of education, when teachers optimize teaching contents to make the entire ideological and political classes completely different from usual, students' enthusiasm for learning and teachers' affective teaching can be fully enhanced. If teachers can teach with affection, students' understanding of the ideological and political curriculum will also develop in a deeper direction.

C. Innovative teaching methods which can help change the way of college ideological and political education

With the application of information resources, it is actually difficult for ideological and political teachers to use the traditional teaching methods because it is inevitable to use modern multimedia technologies such as PPT and various audio and video materials when applying network information [7]. In particular, the number of young college ideological and political teachers is increasing. Their levels of information resource application are above the average. Therefore, in the future college ideological and political education environment, the application of modern technology in education and teaching activities will inevitably increase [8]. As to students' reactions to information-based teaching, it is found that most students are optimistic to see it. They believe that information-based teaching methods can help change the boring sense of normal teaching. Therefore, we can affirm that the application of information resources in the university environment can help improve the actual efficiency of ideological and political education [9]. "Fig. 1" is an overview of the positive role of the application of information resources assisted teaching methods in the era of big data.
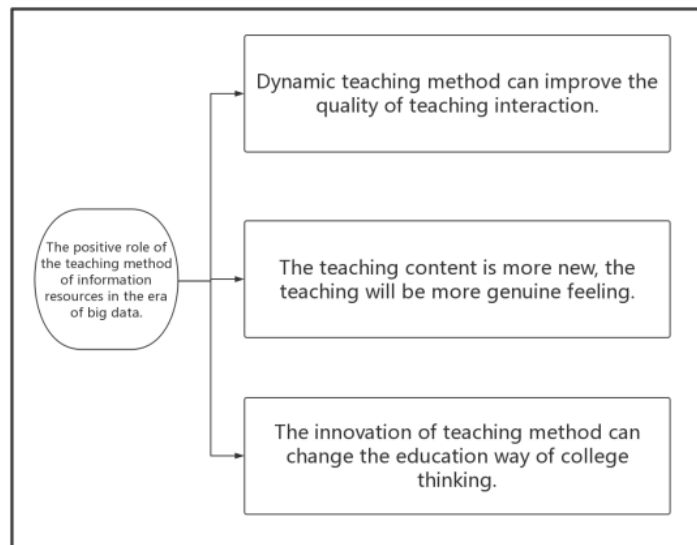

Fig. 1. Overview of the positive role of teaching methods of Applied Information Resources in the era of big data.

III. ANALYSIS ON THE ENHANCEMENT OF COLLEGE IDEOLOGICAL AND POLITICAL EDUCATION BY IMPROVING INFORMATION RESOURCES UTILIZATION RATIO

A. Taking flipped classroom teaching mode as an example

1) Application process of flipped classroom teaching mode

The application of flipped classroom teaching mode has three features. Firstly, teachers must get well prepared before class begins. The flipped classroom teaching mode is mainly in the form of micro-teaching + classroom teaching. To ensure that there are contents worthy of teaching and discussing in classroom teaching, teachers must ensure that students have access to quality micro-courses [10]. Teachers must thus pay particular attention to supervising the quality of micro-course production. Especially when selecting materials for micro-course production with the assistance of information resources, teachers should pay special attention to material selection. Only by controlling the practical value of information resources, can we stabilize the effectiveness of ideological and political education. Secondly, teachers should use video resources in a rational and scientific way and make adequate preparations for classroom teaching [11]. Teachers can determine the application structure of video and classroom teaching for flipped classroom teaching based on their own teaching habits, although video teaching is generally followed by physical inquiry. For this teaching mode, teachers must make good use of video resources and let video resources play a role in guiding and consolidating rather than using video materials as a gimmick to carry out

invalid teaching. Thirdly, it is necessary to evaluate the teaching effect and sum up the true knowledge in the immediate experience [12]. The best means of supervising teaching efficiency in teaching is the evaluation of teaching. Therefore, college teachers should try to provide more evaluation methods for information resources assisted teaching so as to use a complete evaluation system to improve the actual quality of the entire video resource-based teaching method. "Fig. 2" is an overview of the application principles of the flipped classroom teaching mode.
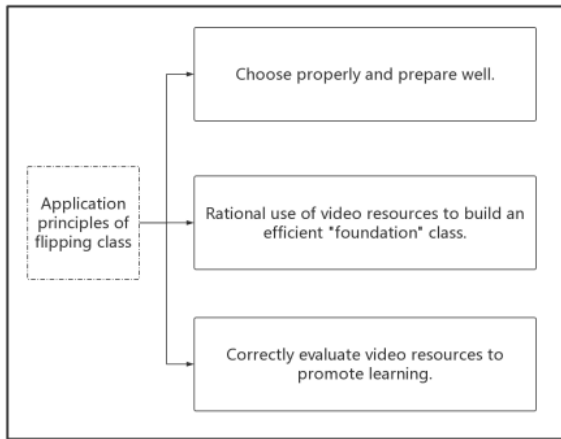

Fig. 2. An overview of the application principles of the flipped class.

2) Analysis on the methods of application of flipped classroom teaching mode in improving the efficiency of ideological and political education

The flipped classroom teaching mode is generally built on information-based teaching platforms. Therefore, to improve the actual efficiency of ideological and political education, colleges and universities can start with platform optimization and work hard until the platforms are effective enough to improve the actual efficiency of college ideological and political education [13]. Specifically, the adaptive learning path recommendation algorithm can be used as an update point, with a view to using the time of students' participating in platform teaching so as to improve the adaptive characteristics between recommended contents and students. In response to this, the personnel involved in the college ideological and political education system can employ external technicians to carry out technological transformation of micro-teaching platforms. The following two points matter to the direction of transformation. One is to use Bayesian network technology and perform accurate calculations through probabilistic reasoning formulas. The full probability formula is as follows:

$$q(K) = \sum_{i=1}^{b} q(K|T_i) q(T_i) \qquad (1)$$

The other is to use the conditional probability formula to complete calculation. The conditional probability formula is as follows:

$$q(K|T) = \frac{q(T,K)}{q(K)} . \qquad (2)$$

When the above algorithm formulas are properly applied to complete the optimization of teaching platforms, students can participate in micro-learning on more quality teaching platforms. Therefore, we can conclude that the higher the college information resources utilization ratio, the higher the actual efficiency of college ideological and political education.

B. Weaknesses and insufficiency in the utilization of information resources by college ideological and political education departments in the era of big data

1) Teachers' information resource application techniques have not reached the expected level

Although we have verified that the application of information resources in the era of big data can help improve the teaching efficiency of college ideological and political education and concluded that the actual efficiency of college ideological and political education departments can be positively enhanced by adjusting the utilization value of information resources, there are still obvious phenomena such as improper use of such resources by college ideological and political education teams [14]. One of the reasons is that ideological and political teachers' information resources application technology has not reached the expected level. To make good use of information resources requires teachers to have good informatization operation skills. Most of the older ideological and political teachers do not have the ability to use computer equipment, let alone voluntarily conduct recording and video editing activities [15]. Therefore, to use information resources to improve the actual effect of ideological and political education, colleges and universities should pay attention to improving the informatization operation levels of teacher teams. In this way, we can stabilize the quality of informationization education of college ideological and political teaching teams.

2) The micro-teaching method has not been fully integrated into the teaching system

At present, although some college ideological and political education departments have begun to use the flipped classroom teaching mode and other information resources assisted teaching modes, there are still such phenomena as teacher-centeredness in teaching and the insufficient use of micro-teaching. If a teacher fails to realize the importance of the micro-teaching method and uses the flipped classroom teaching mode only as a simple teaching aid, it is impossible for him or her to effectively display the practicability of information resources. Therefore, in the next stage of education and teaching, college ideological and political education teams should increase the actual proportion of micro-teaching application so as to improve the actual effect of college ideological and political education.

IV. CONCLUSION

In summary, against the background of the era of big data, this paper conducts a verification research on the relationship between information resources utilization ratio and college ideological and political education efficiency. Information resources are an important part of all development channels

in the era of big data. People improve themselves by obtaining information and also obtain more rapid development channels by summarizing information. Therefore, information resources have a fundamental role in improving the efficiency and quality of actual work for all walks of life. This paper aims to provide educators and teachers with some simple ideas for educational reform.

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