The effectiveness of Students' Teaching Evaluation of Colleges and Universities in the context of Big Data

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Abstract

Along with the innovation and development of Internet technology and relative industries, China's development of social economy and city construction have been gradually entered into the era of Big Data. At this time, in order to do better with the teaching management of Colleges and Universities, and reduce unnecessary management problems, it is very important to fully display the effectiveness of the teaching evaluation regarding the students in Colleges and Universities in the context of Big Data. Therefore, based on the understanding of the problems regarding the past teaching evaluation of students in Colleges and Universities,This article analyzes the effectiveness of improving practical work by combining with the advantages of teaching evaluation of Big Data,

Keywords

Big Data; Colleges and Universities; Teaching Evaluation; Data Mining; Data Collection; Feedback.

1. Traditional teaching evaluation regarding the students in Colleges and Universities .

As the basic content of teaching management in Colleges and Universities, teaching evaluation directly affect the quality of practical teaching guidance in Colleges and Universities, as well as the growth of students and the development of education in future. Essentially speaking, The teaching evaluation in Colleges and Universities is the process of making a accurate judgement under the collation, analysis and other operations regarding the actual value of education management in Colleges and Universities through the comprehensive and systematic presentation of education and teaching information. Now, teaching evaluation is mainly used to understand the changes of students' learning and growth, evaluate the teaching ability and quality of teachers of various majors, and have a positive effect in the reform of practical teaching and management in Colleges and Universities. According to the requirements of the outline and planing of education reform and development proposed by China's education department, in the context of the new era, we should start with the training objectives and talent concepts, and setup reasonable and multifarious evaluation nor. It should be noted that this work must be supported and recognized by the society, schools and students' parents, and make a students' growth records, and conduct comprehensive evaluation from multiple perspectives. However, after understanding the past situation of teaching evaluation regarding the students in Colleges and Universities, we find that the selected main subject for evaluation is too single, most of them are the school managers and relevant departments to evaluate through the past evaluation experience to analyze in practice operation, so the final results are not perfect, and can't be deeply mined in the context of Big Data [1].

2. Advantages of teaching evaluation in the context of Big Data

Alone with the all around promotion of Big Data concept and technology in recent years, it has shown positive effects in the education management of Colleges and Universities, and brought a new management thinking mode in the collection, collation and mining analysis, which has promoting effect on the education of Colleges and Universities in the stage of innovation and development. Because Big Data utilizes complicated and changeable computing structure to setup large and high-quality data storage capacity, complex model construction ability and comprehensive data processing ability, which provide more systematic information platform for teaching evaluation and management in Colleges and Universities[2].

2.1. Ensure the unhindered between the multiple parties

Whether education and teaching work or practical teaching activities, their development of practice all provide a lot of information for the composition of teaching Big Data in Colleges and Universities. This information are covering a very wide range such as scientific research activities, teaching work and club activities. There are many kinds of data information collected based on these contents, but the collection period is very short and this information are openness. After analyzing the development trend in Big Data era, we know that every participator in the process of education and teaching is both the producer of data and the user of data. The evaluation working of teachers and students in different situations can be provided the effective basis by utilizing the open teaching evaluation activities and mining the potential data information. At the same time, the more main subjects can be attracted to participate in the evaluation working and put forward their own ideas through the effective combination of Internet and Big Data technology and expanding the intellect and consciousness of teachers and students in Colleges and Universities. In this way, the authenticity and transparency of the evaluation data can be enhanced, and the improvement of students' teaching evaluation in Colleges and Universities can be guided constantly to the direction of systematization. In addition, alone with the accelerated pace of China's education innovation in Colleges and Universities, when the student teaching evaluation working is processing , the inappropriate evaluation index will be abandoned in time with the optimization and innovation of the evaluation work, which can not only fully display the practical significance of teaching evaluation, but also show positive effect in education and teaching management work of Colleges and Universities. [3].

2.2. Ensure more perfect for data collection

In the context of Big Data, the data information collected by teaching management in Colleges and Universities is more diversification without the structuration between them. Although it increase more difficulty to evaluate the teaching working in Colleges and Universities, it can also show more truly effects of teaching and learning. It not only contains various factors relative teaching management, but also can discover more valuable knowledge information from a large number of tedious data after combining with the analysis of Big Data which are teaching evaluation data. At the same time, the arrival of Big Data era also provides a new collection channel for students' teaching evaluation in Colleges and Universities, which helps mangeri staff to collect more unstructured data and lay a foundation for the subsequent teaching evaluation, such as audio, text and image, which can truly show the process of teaching and learning[4].

2.3. Ensure more convenient for data processing

In the context of Big Data, The teaching management in Colleges and Universities must make full utilization of advanced technology concepts, such as smart campus, cloud computing, Internet of things, etc. Based on the rectification of practical teaching content and teaching

mode, these technologies can also correctly process massive teaching information, and discover the hidden teaching information after dynamic analysis and management. For example, during classroom teaching guidance, if students put forward their own questions to teachers by mobile phones and other network platforms, then teachers should carry out the targeted interaction or response in after class time based on the integration of the teaching situation in classroom. In this way, these activities can not only help students solve learning problems, but also provide rectification basis for subsequent teaching implementation.

3. How to fully show the effectiveness of Students' teaching evaluation in Colleges and Universities in the context of Big Data

3.1. Data collection

Scientific and valuable teaching evaluation is the basic content to promote the innovation of education in Colleges and Universities. Now, in order to put forward effective teaching evaluation in the context of Big Data, manageri staffs in Colleges and Universities must analyze it from the perspective of diversification and systematization, collect more evaluation data of practical teaching, and strictly control the collection of blindness and randomness, so as to ensure the validity of data collection. For students' teaching evaluation in Colleges and Universities, most of the data information mainly falls into two kinds, one is static data, also known as result data, which mainly reflects a certain stage, a certain state or result information, such as the class performance analysis data, etc.; the other is dynamic data, also known as process data, which mainly shows a certain point in time, a moment of state information, etc., with continuous changing characteristics. When collecting different kinds of data, in order to ensure the completeness and rational of data information, the manageri staffs in Colleges and Universities should choose different management strategies and application technologies. Taking the former as an example, because it has the characteristics of large quantity and wide scope, it can use the classic business system to carry out practical operation; the latter has the characteristics of flexible structure and wide distribution, so the manageri staffs need integrate and utilize a number of modern technologies and related schemes to design and develop a new system for implementing collection and processing of data based on the understanding actual situation.

3.2. Mining and Analysis

After collecting the data and information required by the teaching evaluation, manageri staffs in Colleges and Universities should integrate and utilize various effective technical methods to process and analyze the data, they should not only make statistical records very well, but also dig out more valuable information from them. The most common data mining and analysis technology is education data mining and learning analysis. The former needs to use classical methods such as prediction and relationship mining to dig out the potential teaching rules and management requirements from a large number of teaching evaluation; the latter needs to integrate and utilize basic theories and methods such as pedagogy and computer to make the practice of education in Colleges and Universities more suitable for the growth requirements of individual students.

3.3. Feedback Results

In the context of Big Data, the evaluation results should be timely feed back to Colleges and Universities, manageri staffs in Colleges and Universities need to utilize various methods to display the evaluation results publicly, and transform the original passive operation into active push operation, which helps the teaching management of Colleges and Universities to obtain data comparison, statistical analysis and other visual data results. In this process, both school manageri staffs and teachers and students can get high-quality information services from it.

3.4.   Application

In the context of Big Data, the teaching evaluation of students in Colleges and Universities is for grasping and predicting the information of students' learning situation, learning attitude and practical teaching effect. There are positive effects on the adjustment of education and teaching form and management direction in these contents. Through the collation and analysis of the final evaluation results, teachers can grasp the changes of students' learning, clarify students' amount of knowledge reserved, and then they can set more targeted guidance programs according to the subsequent teaching content, and provide more suitable learning methods to students. Therefore, the teaching management department can find out the problems happened in the practical teaching in time, adjust the management plan in Colleges and Universities scientifically, and guide the education management to the modernization and standardization.

4. Conclusion

In view of the above, although Big Data environment brings new challenges to the development of Colleges and Universities, it also enriches the content of practical education and teaching activities. Through the use of information technology and ideas of Big Data, on the basis of the implementation of comprehensive teaching evaluation work, not only can attract multiple parties to actively participate in the evaluation, but also can obtain diverse and multi-level teaching evaluation data. By integrating and utilizing data mining and analysis technology to research teaching evaluation data, this way can not only bring more true and reliable rectification gist for Colleges and Universities, but also be used for practical teaching and teaching management analysis

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