Research on Work Effectiveness of University Counselors Based on Big Data Platform

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Abstract

Colleges and universities have adopted information management in the era of big data. College counselors now conduct their day-to-day management on the big data platform, where they are more efficient in getting access to students’ information, solving student problems and at work. This paper expounds the basic connotation of big data platform and the four major features to grasp big data. It also analyzes the status quo of counselors in colleges and universities and figures out such problems as information delay, supervision insufficiency, and imperfect evaluation system. Given the role of big data platform in promoting counselors’ work in colleges and universities, the paper puts forward the method to establish an effective big data-based platform for counselors, including constructing a supervision and evaluation system, an information exchange platform and differentiating management pages, etc. so as to improve the effectiveness and efficiency of counselors in colleges and universities.

Keywords: Big Data Platform, Counselors, Counselor Work.

1. RESEARCH BACKGROUND

1.1 Literature review

With the globalization of information, information technology has become an important part of people’s life. By using information technology, people change their way of life (Gu, 2017). Big data technology emerges on such basis and its development shows the rapid communication of information at present. Big data technology has formed a new mode of information exchange that’s higher in efficiency and utilization. Big data is not a pure information collection system; it also involves data processing, analysis, forecasting, hence more effective (Wen and He, 2017). Colleges and universities are the most important part of education, when students can grasp professional skills, form the right values, and get well prepared to contribute to the society. Therefore, colleges and universities should not only pay attention to students’ academic performance, but also strengthen their administration of students’ daily life, so as to help foster in the young morally sound values and promote their growth (Lu and Li, 2017). Counselors are the main practitioners of student management, and occupy an important position in the daily life of students. Counselors guide students and help them form the right values and a sound foundation for the future development. The popularization of big data technology in colleges and universities has changed the traditional management mode and enhanced the level of management in colleges and universities (Wang, 2017). Colleges and universities also set up big data platforms for counselors for better access to student information and their psychological changes, so that they can adjust their own management style and improve the effectiveness at work. The current studies about the work of counselors based on big data platforms mainly focuses on how they their work and what methods they’ve applied. It offers research ideas and directions for scholars engaged in big data based counselor work.

1.2 Purpose of research

This paper makes the basic connotation of big data platform as an entry point to analyze problems, from all-round perspectives, existing in the work of college counselors (Chen and Xiao, 2017). The work of college counselors is a key part in school management, and big data-based platform for counselors not only combines their work with the campus work systems, but also enables them to access and analyze student information to figure out problems in the studies and life of the latter.

Information platform built in this process strengthens counselors’ understanding and utilization of big data technology, helping them solve problems at work and improve work efficiency (Song, 2017).
2. INTRODUCTION TO BIG DATA PLATFORM

In a time when information exchange gets more frequent, big data technology is under the spotlight once proposed. It has greatly promoted the formation of information globalization. Big data is built on the Internet technology, which also shows that big data is extensively used in its construction (Li, 2016). It is a new type of network architecture technology that collects, collates and sorts out massive data before accurate analyzing and forecasting (Tang, 2016). This also allows big data to form four figures in its development, i.e. volume, velocity, variety and value. First, volume. Big data involves a large amount of data and information generated in people’s productive activities. The popularity of mobile devices extends the time of use, giving rise to massive data and information. Second, velocity (He, 2016). It is quick in collecting and classification. The high-speed data processing accelerates the exchange of data and information and facilitate information consultation. Third, variety. The information contained in big data is diversified and users can choose the information they want from big data (Liao, 2016). Fourth, value. It is an important technical feature in big data technology. The technical characteristics of big data mean that it can not only collect and collate information, but also analyzes and predicts information, which can increase the added value of information. With the popularization and development of Internet technology, big data technology has penetrated in production and changed people’s life style. Among all others, college students are the main population using big data. They use various information software for access to the appropriate information. Big data has gradually become the primary means students use to obtain information (Sun, 2015).

3. PROBLEMS IN THE WORK OF COUNSELORS

3.1 Heavy workload, delayed information

The work of college counselors is an important part of daily management in colleges and universities. Counselors guide students to form the right values, so as to promote their healthy development (Zhou, 2015). However, with the advent of the era of big data, colleges and universities reform their own management system, but provide no independent information system for the management work of counselors, without which the latter can hardly handle student problems or integrate information at work in a timely manner, and only find it hard to improve work efficiency. As there is no big data platform for their information collection and sorting, they lag behind in obtaining student information, and the plans they develop, therefore, can be inconsistent with the real situation of students. Their improper use of big data makes it impossible to fully understand student.

3.2 Lack of information supervision for early warning

Information globalization allows all kinds of information to be disseminated through network information platform. As the main users of big data technology, university students not only access to information that helps them in study, but may also affected by bad information (Wang, 2015). When using big data platform at work, counselors fail to use big data platform to form information supervisory system to delete bad information and create a good online information environment for the healthy development of students (Wu, 2015). Moreover, with the absence of big data information platform, counselors still use traditional ways to assess student precautions. When collecting student information, teachers do not make reasonable use of big data to collect the information, leading to information delay for effective student early warning assessment.

3.3 Lack of information platform, imperfect evaluation system

Counselors in colleges and universities does not use big data technology to establish information platform, without which the communication between counselors and students decreases. As a result, counselors can not effectively understand the psychological state of students, and then rely big data to predict and assess the psychological condition of them. The imperfect evaluation system in big data platform also affects counselors’ work. Evaluation system is not only used to evaluate the status of the students, but also to supervise the counselors by collecting and analyzing related information. But in real life, the big data platform does not play its role.

3.4 Big data platform facilitating the work of counselors in colleges and universities

The application of big data platform by counselors in colleges and universities has changed their traditional mode of work, kept them well informed and more efficient at work (Wang, 2015). The platform also enables
them to follow students’ psychological changes and help them by probing into their use of data. When counselors use big data platform to at work, they also contribute to the accuracy and value of the data they process.

4. MEANS TO BUILD BIG DATA-BASED WORK PLATFORM FOR COUNSELORS

4.1 Understand big data, establish information collection system

In big data era, college management enters a period of reform, so does the work of college counselors. First of all, they should understand big data and its technical characteristics. Colleges and universities should also strengthen their construction of information infrastructure required for establishing big data platform. Promote the construction of counselor data platform to increase the effectiveness of counselor work. Second, establish information collection system when constructing counselor data platform, as is shown in Figure 1.

![Figure 1. Instructor Data Collection System](image)

Use big data technology to establish collection channels of data used by students. Analyze, process, and integrate the data with big data technology so that counselors can use them directly and more efficiently.

4.2 Differentiate management pages, construct early-warning system

The establishment of counselor data platform not only requires information collection system, but also differentiated management pages. Counselor data platform is not merely used by counselors themselves, as students also access corresponding information via this platform. Therefore, differentiated management pages and permission settings should be provided with big data technology. The browsing information can be restricted to create a good information environment for students and their healthy development. Big data technology is also used to build early warning system. Collect data used by students with the information collection system, as is shown in Figure 2, then analyze, process and integrate the data to form valuable information needed for forecasting student psychology and behavior and timely identify and address student problems.
Besides, the early warning system can be leveraged for student evaluation, figure out their information performance and help them find their own deficiencies.

4.3 Increase information exchange and setup supervision and evaluation system

Information exchange platform should also be established with big data technology when building big data-based counselor work platform. Information channels should also be provided for counselors and students to send feedback to each other. This will enhance the relationship between them. At the same time, set up a supervision and evaluation system, as is shown in Figure 3, as a basis for evaluation.

When counselors are working with the information platform, the big data system collects the information therein, analyzes the information on a regular basis, discovers shortcomings in the work of counselors, and conducts evaluation. Calculation algorithm is used in the evaluation process, where the counselor is taken as the research object, hence the nonempty set $p = \{r_1, r_2...r_n\}$. The evaluation set is $w = \{w_1, w_2...w_v\}$, where the target of evaluation is $r_n = (1, 2..., m)$, and relevant evaluation index is $v = \{v_1, v_2...v_n\}$. Fuzzy relation is set up as:

$$
\begin{pmatrix}
    p_{11} & p_{12} & \cdots & p_{1n} \\
    p_{21} & p_{22} & \cdots & p_{2n} \\
    \vdots & \vdots & \ddots & \vdots \\
    p_{n1} & p_{n2} & \cdots & p_{nn}
\end{pmatrix}
$$

Put the result into the formula $P_{rw} = \frac{y_{rw}}{n}$ for corresponding evaluation results to promote counselor work.
CONCLUSION

In big data era, the work college counselors have entered a period of reform. The construction of early warning systems and information exchange platform provides sufficient information to counselors, and the establishment of information management platform makes counselor work more effective.

REFERENCE


