

The Status Quo of Digital Literacy of University Teachers in Inner Mongolia based on the Results of Questionnaire Survey

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Abstract: With the development of big data technology, great changes have taken place in the way of thinking, teaching and lifestyle of university teachers, whose digital literacy directly affects their survival and development ability. This paper investigates the digital literacy of 220 university teachers from five universities in Inner Mongolia, and discusses the problems related to the cultivation of digital literacy of university teachers according to the results of the questionnaire.

Keywords: Inner Mongolia Region; University Teachers; Digital Literacy; Questionnaire Survey Results; Analysis

With the advent of the “Internet +” era, Internet of things and cloud computing technology have great impact on the development of all walks of life. Digitalization has changed the environment of people’s survival and development. University teachers in such a digital technology environment, through their own digital literacy to change the disadvantages of traditional teaching mode, innovative talent training mode, and the effect is remarkable. Next, taking Inner Mongolia as an example, based on the results of the questionnaire, this paper analyzes the problems related to the cultivation of digital literacy of university teachers.

1. A survey of digital literacy of college teachers in Inner Mongolia

1.1 Respondents

By random sampling method, 220 teachers from five universities in Inner Mongolia were selected as the survey objects.

1.2 Investigation methods

Through the questionnaire design questionnaire, the status quo of digital literacy training of university teachers in Inner Mongolia is understood.

1.3 Investigation content

This paper mainly investigates teachers’ data thinking, digital technology, data thinking habits and lifelong learning concept.

1.4 Survey results

From the survey results, the digital literacy training of university teachers in Inner Mongolia has achieved certain results, but there are also many problems. Digital literacy is one of the essential core literacy of university teachers. We should use various innovative ways to solve the problems, and constantly improve the efficiency and level of teachers’ digital literacy training.

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2. Analysis on the current situation of digital literacy of university teachers based on the results of questionnaire survey

2.1 Data thinking

Data thinking is the first mock exam to give full play to the teaching effect of massive data in the network. By constructing a learning analysis model, we can predict the teaching effect based on this model, or adopt effective teaching strategies. Guide teachers to directly transform from natural thinking to intelligent thinking, and give full play to the role of big data technology. From the survey results, only 26.4% of the 220 college teachers in Inner Mongolia will actively build a learning analysis model before teaching to understand the learning basis and level of students in the class, and only 1/2 of the 26.4% teachers will pay attention to the pertinence and effectiveness of the model construction. Most of the remaining teachers pay more attention to the form than in content and lack the awareness and ability to convert data into information, which will affect the efficiency and level of talent training.

2.2 Digital technology

The purpose of digital technology is to transform data into wisdom, analyze learning through software and network platform, and adjust and optimize for individual students' needs. At present, the main channels for university teachers to obtain digital information are digital library, mobile phone, computer, TV and other traditional media. According to the survey, college teachers use the above-mentioned media to obtain information mainly for the needs of teaching work. 86.5% of them communicate with students through major social platforms and answer their questions in time, 52.6% of them understand news information, 46.9% of them make friends and 50.2% of them are entertainment. Therefore, college teachers use the above media to obtain knowledge closely related to teaching and solve work problems. More than 56% of teachers use digital libraries such as HowNet and Wanfang, while 49.3% use search engines such as Baidu and Google. It is not difficult to find that university teachers do not have a deep understanding of the professional academic resources database, and they still need to correct their academic and scientific research attitude. As for the management methods of digital literature, more than 60% of teachers said that most of them download to local hard disk, and only 29.3% of them collect and save online by using bookmarks. Even 9.6% of teachers do not have certification for literature management, and only 3.2% of teachers will use endnote and other literature management software for professional management. On the other hand, only about 30.2% of teachers will use computer technology and statistical software to analyze the big data they have collected, and write a report according to the actual teaching needs, so as to provide decision-making services for solving practical teaching problems.

2.3 Establishing the habit of data thinking

With the application of big data technology, the way of thinking of university teachers has changed greatly, from natural thinking to intelligent thinking, and then to data thinking. College Teachers in Inner Mongolia are willing to share professional and scientific research related knowledge and information with students through QQ, wechat and other social platforms. More than 65% of teachers are very willing to share information, 34.2% are generally willing, 0.53% are not willing, and 0.27% are very unwilling. However, teachers' overall awareness of digital information security self-protection is poor, and their awareness of rights protection is not high. Among the 220 teachers who participated in the survey, 42.5% of them chose to use personal computers by default, 30.2% said they would occasionally clean up browsing traces, 16.3% said they would not save important passwords in browsers, and only 11% would set passwords for all kinds of software and pay attention to privacy protection. Therefore, it is not difficult to find that college teachers need to strengthen their awareness of digital identity and privacy protection. For the unfair events in life, few teachers would appeal or protect their rights through the Internet, 72.3% of them said that they should use the Internet to protect their rights, but they never implemented it; 11.3% of them thought that they could never use the Internet to protect their rights.

3. Specific countermeasures to improve digital literacy of university teachers

3.1 Establishing digital literacy training institutions for university teachers

From the results of this questionnaire survey, the digital literacy level of university teachers in Inner Mongolia needs to be improved. Based on the actual situation, colleges and universities should set up a special digital literacy training institution

for teachers, which are specially used to guide teachers to improve the knowledge of data science, optimize the methods of digital resources, and focus on mastering the skills of learning situation analysis. We should build a perfect evaluation standard of digital literacy technology ability, implement the system of combining training and qualification certification, and strengthen the training of teachers before and during their employment. Secondly, the basic knowledge of digital literacy should be included in the teacher qualification certification mechanism to build a standardized and perfect training mechanism of teachers' digital literacy, guide teachers to build a perfect digital resource library for students, and cultivate teachers' digital literacy in teaching, scientific research and other practices.

3.2 Providing services for university teachers to tap high quality digital resources

Under the new situation, colleges and universities in Inner Mongolia should pay attention to guiding teachers to develop high-quality digital teaching resources, and analyze and predict teaching and learning effects through learning analysis technology. However, in the specific implementation process, we will encounter different problems. We should build a perfect digital resource Help Center for teachers, provide professional guidance and technical services, and give full play to the role of big data technology in improving teaching content and innovating teaching methods for teachers, so as to lay a solid foundation for students' personalized development.

3.3 Construction of long term mechanism based on the long term development of colleges and universities

With the continuous development and improvement of big data technology, colleges and universities in Inner Mongolia should pay attention to the construction of a perfect standard for teachers' basic digital literacy, improve teachers' digital literacy in an all-round and multi angle way, and give full play to the role of big data technology to analyze and master data science, so as to learn analysis technology, establish digital thinking, and cultivate digital thinking, as well as combine students' specific professional learning. We should cultivate students' creative thinking ability, guide students to establish the concept of lifelong learning, and then provide quality services for the construction of a learning society. It is of great significance to build a long-term mechanism for teacher development to improve the efficiency and level of talent training in colleges and universities.

4. Conclusion

With the rapid development of big data technology, digital literacy of university teachers plays an irreplaceable role in enhancing the strength of teachers and improving the effectiveness for personnel training. Through the investigation and analysis of the digital literacy of five university teachers in Inner Mongolia, it is not difficult to find that there are many problems in the cultivation of digital literacy of university teachers. Based on this, universities should pay attention to the establishment of basic norms of teachers' digital literacy, strengthen the training of teachers, and guide teachers to use big data technology to analyze learning situation, in order to help teachers formulate effective teaching countermeasures, improve classroom learning methods, and continuously improve the quality and level of higher education. We should also guide teachers to innovate education reform according to the results of big data analysis, strengthen the teaching to cultivate big data research and development, and continuously improve the effectiveness of higher education, as well as cultivate more high-quality talents in line with the needs of social development.

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