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Innovative Paths of Academic Guidance for College Students in Universities in the Digital Era

Wang Haijun[1]
[1]*Office of the President, Jiangsu University, Zhenjiang, Jiangsu Province, China, 212013*

Abstract

With the rapid development of cloud computing and digital technologies, the academic guidance work for college students in universities is facing unprecedented opportunities and challenges. This study aims to explore how to use educational big data and cloud computing technologies to construct a precise collaborative platform and provide personalized academic guidance for college students. The results show that universities should make full use of educational big data and optimize the academic guidance process through digital means; at the same time, it is necessary to strengthen the collaboration of the academic guidance team, improve the whole-process management, optimize the academic guidance platform, and establish a comprehensive coverage evaluation system. The innovative paths and solutions proposed in this paper provide important theoretical and practical references for the academic guidance of college students in universities.

Keywords: Digital Era; Academic Guidance; Big Data.

1. Introduction

With the rapid development of information technology, human society has fully entered the Digital Era. The 14th Five-Year Plan for Digital Economy Development issued by the State Council of China clearly points out that digital transformation has become an irreversible trend. Against this backdrop, the field of higher education is also undergoing an unprecedented period of transformation and transition[1]. The digital transformation of higher education aims to build a more agile, adaptable, equitable, and sustainable education system, providing learners with comprehensive and rich learning experiences[2]. As "digital natives" of the digital age, college students have undergone significant changes in their learning methods, information acquisition channels, and communication ways. Digital technologies not only provide college students with abundant learning resources and convenient

learning channels but also pose challenges to the traditional academic guidance model. Only by accurately grasping the changes brought about by digital technologies can university teachers provide personalized guidance that meets the needs of economic and social development. Therefore, exploring the implementation paths of academic guidance in universities in the Digital Era can not only provide theoretical support for higher education reform, enrich and develop the education theory system but also help universities optimize the academic guidance system[3], better meet the needs of students' personalized development, and enhance students' comprehensive quality and innovative capabilities.

2. Current Situation of Academic Guidance Education in Universities and Advantages of Digitalization

To fully understand the current situation and existing problems of academic guidance education and improve the quality of academic guidance work in universities, this study designed a questionnaire on academic guidance education. By synthesizing students' evaluations of teachers, this study further analyzed students' satisfaction with their academic and career planning abilities. Taking a university in Jiangsu Province as an example, this study conducted a questionnaire survey among 4,368 students from different disciplines, including science and engineering, medicine, humanities, and economics and management.

2.1 Current Situation of Academic Guidance Education

In the Digital Era, the academic guidance for college students in universities presents the following prominent characteristics: first, the guidance methods tend to be diversified, combining online and offline interaction models and providing personalized customized services; second, the guidance content is more abundant, covering multiple fields such as academic guidance, psychological counseling, and career planning[4]; third, the guidance subjects also tend to be diversified, including not only traditional teachers but also peer mentors, enterprise mentors, and other forces[5]. Through the questionnaire survey, it was found that although the Digital Era has brought many opportunities for the academic guidance of college students in universities, there are still some problems that need to be solved urgently.

(1) Insufficient Communication and Learning Among Academic Guidance Teachers

In the survey on the bottlenecks of academic guidance teachers, 57.87% of students believed that there was little communication among teachers (lecturers, academic mentors, innovation practice mentors). The lack of effective communication and cooperation leads to the isolation of knowledge and experience, making it impossible for teachers to share teaching experience, effective guidance methods, or planning skills, thus failing to achieve the goal of collaborative education. In addition, 47.44% of students believed that academic mentors lacked knowledge in academic planning, psychological counseling, and other aspects, which has become a major problem. Academic mentors should possess knowledge and skills in academic planning, psychological counseling, career consultation, and other fields. However, due to the lack of relevant training or continuous learning opportunities, some academic mentors

have insufficient mastery of knowledge in these fields, making it difficult to provide comprehensive help and support for students.

(2) Discrepancy Between Academic Guidance Content and Student Needs

First, regarding the teaching level of academic guidance teachers, 82.9% of students hoped to optimize the curriculum content in academic guidance courses, combining theory with practice to improve the practical guiding role of courses in students' growth. 69.37% of students expected teachers to improve teaching methods, enhance the appeal of language expression, and create a more interactive classroom atmosphere. Second, students have high expectations for academic guidance work; 74.31% of students hoped that academic mentors would provide more guidance and help in academic planning and career planning to better master learning methods and develop scientific thinking habits. In terms of innovation practice education, students believed that the current innovation practice education in universities is still insufficient; 79.49% of students hoped that innovation practice mentors could analyze the employment situation, impart work skills and experience, and provide guidance in innovation theory and practice.

(3) Inadequate Personalized Academic Guidance Services

In the survey, students hoped that academic mentors could strengthen personalized academic planning guidance based on students' actual situations; the university provided "one-on-one" innovation practice mentors for less than one-third of students to help them carry out professional innovation practice; at the same time, 75.92% of students suggested improving the educational effect of academic guidance through the "practice base learning model + innovation practice mentor guidance" and "group cooperative learning model + academic mentor guidance".

(4) Single-Dimensional Evaluation of Academic Guidance Effectiveness

More than 64% of students believed that the evaluation of the teaching effect of academic guidance courses mainly relies on students' employment quality and student evaluation of teaching; while 78.94% of students believed that the educational effect of academic guidance courses should be measured by the evaluation of employment quality and academic employment ability by external third-party institutions. This is different from the current single evaluation method adopted by most universities, which mainly relies on students' grades, academic mentors' evaluation of employment ability, and teachers' evaluation of academic guidance effectiveness.

2.2 Advantages of Digitalization in University Academic Guidance Work

In today's society, digitalization and intellectualization have profoundly affected all aspects of campus life. Students can browse various new media anytime and anywhere and obtain various types of information through more channels, which provides a new opportunity for innovating the academic guidance model in universities. At the same time, digital technologies have shown many advantages in improving the efficiency of academic guidance in universities, which are specifically reflected in the following aspects:

First, digital technologies can provide personalized academic guidance. By using big data to analyze students' learning habits, ability levels, interest preferences, and other

information, personalized guidance plans can be customized according to each student's needs.

Second, digital platforms provide abundant learning resources and materials, including online courses, e-books, academic databases, virtual laboratories, etc[6]. These resources help students obtain the latest knowledge and information in a timely manner and can be accessed anytime and anywhere, breaking the limitations of time and space and greatly improving the flexibility and convenience of learning.

Finally, the digital academic guidance system can track students' learning progress and performance in real time and provide immediate feedback and evaluation. This feedback mechanism helps students understand their learning status in a timely manner, identify problems, and make improvements; at the same time, it also provides more accurate teaching guidance and support for teachers.

In addition, digital technologies also promote convenient interaction and cooperation between students and their classmates, teachers, and experts, stimulating innovative thinking and creativity; at the same time, they simplify the process of teachers guiding students' academic work and improve work efficiency; through cross-regional and cross-university resource sharing, guidance services can effectively alleviate the imbalance of educational resources and promote educational equity.

3. Implementation Paths of Academic Guidance for College Students in Universities in the Digital Era

With the in-depth development and wide application of digitalization in universities, universities should focus on students' long-term academic planning, enhance students' practical abilities, and improve students' employment success rate[7]. In recent years, through the construction, practice, and research of smart campuses and digital university management information platforms, university education guidance departments have realized that in the platform path of digitalizing academic guidance work, in-depth research and exploration are needed in many aspects, such as the construction of teaching staff, management mechanisms, optimization of digital service platforms, and improvement of evaluation systems.

3.1 Collaborate Full-Staff Teaching Resources for Academic Guidance

To improve the insufficient communication and learning among academic guidance teachers, universities should take a series of effective measures to promote the collaboration of full-staff teaching resources for academic guidance. Specific measures include establishing an efficient communication mechanism, providing sufficient time and resource support, creating an open and cooperative cultural atmosphere, understanding the mechanism of digital technologies and their advantages in education, and strengthening digital education concepts such as joint effort, sharing, quantification, and precision[8]. Through these measures, academic guidance teachers can better share experience and learn from teaching methods, thereby improving the overall teaching quality and students' learning experience. Therefore, universities should build a full-staff collaborative guidance platform with academic guidance lecturers, academic mentors, innovation practice mentors, and peer mentors as the main body, carry out communication and learning activities

among teachers around students' individual development goals, enhance digital guidance capabilities, and promote the effectiveness of academic guidance work.

3.2 Improve the Whole-Process Path of Academic Guidance

To reduce the discrepancy between academic guidance content and student needs, universities should take comprehensive measures to improve the whole-process path of academic guidance. This should be reflected in optimizing the academic guidance curriculum system, strengthening practical links, increasing fund investment, enhancing teacher training, providing academic guidance consulting services, and strengthening the assessment of the mentor team. First, universities should establish a sound general education curriculum system for academic guidance, update the curriculum content regularly, integrate vocational case teaching, implement digital transformation through various activity forms, strengthen vocational internships and practical links, and guide students throughout the process with a high-quality curriculum system. Second, universities should increase resource investment, provide special funds to support academic guidance work, establish academic consulting and guidance studios, and provide full-process online and offline support to ensure that students receive timely and effective academic help. In addition, universities also need to improve the management and assessment mechanism of academic mentors to give play to the guidance quality and effect of academic mentors in the whole process[9].

3.3 Optimize the All-Round Academic Guidance Platform

To better provide personalized academic guidance, universities should take a series of measures to optimize the all-round academic guidance platform and meet the academic needs of different students[10]. The academic guidance platform should provide hierarchical and classified guidance according to students' specific needs, including but not limited to directions such as employment, entrepreneurship, postgraduate entrance examination, and studying abroad; according to the talent training orientation, it can be divided into basic platforms, characteristic platforms, and top-tier platforms; differentiated guidance should be provided according to students' learning levels, such as students with learning difficulties and academically excellent students; appropriate guidance content should be provided according to students' grades (e.g., from freshman to senior year) to meet the needs of different grades. Through individualized teaching, the pertinence and effectiveness of academic guidance are ensured. At the same time, universities should also strengthen the support for students with learning difficulties, establish an academic early warning system, and provide personalized support to help students overcome learning obstacles and improve academic performance.

3.4 Establish a Full-Coverage Evaluation of Academic Guidance

To solve the problem of single-dimensional evaluation of academic guidance education, universities should establish a full-coverage evaluation system for academic guidance, combining multiple evaluation methods to comprehensively assess the effect of students' academic guidance, thereby ensuring the effectiveness

and quality of academic guidance services[11]. Promote the digital transformation of education and build an intelligent academic guidance evaluation system using big data technology[12]. Specifically, universities should scientifically set the goals and evaluation indicators of academic guidance according to the talent training objectives of different disciplines and establish a sound academic guidance evaluation system. Relying on big data, carry out process-oriented and diversified assessment, combine qualitative and quantitative analysis, and form a multi-dimensional and phased assessment model for students of different levels, stages, and characteristics. In addition, universities should also establish a data-driven feedback mechanism to improve the intelligence and scientificity of academic guidance, realize the visualization and interpretation of academic data, and ensure that the full-process evaluation system can be continuously optimized.

4. Conclusion

Against the background of the rapid development of digitalization, universities should keep pace with the times, make use of big data and digital technologies, gradually improve the digital academic guidance platform, break through the limitations of traditional academic guidance, and build a new academic guidance model that meets the needs of the digital age. By providing services such as personalized academic advice, career planning guidance, internship and employment resource support, and online vocational skills training, universities can help students achieve self-improvement and career development. In the future, universities also need to continuously explore innovative paths of digital academic guidance, promote the sustainable development of digital academic guidance services, and create more opportunities and possibilities for students' learning and career development. This will help improve the quality and effect of academic guidance in universities, promote students to better adapt to social needs in the Digital Era, and achieve higher-quality employment and career development.

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