Diagnosis and Intervention of "Slow Employment" Among College Students Based on Behavioral Analysis from the Perspective of Big Data
Taking Z School in Z City as an Example

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ABSTRACT

Employment is the greatest livelihood and college student employment is an important task for universities. The 2022 Survey Report on the Employability of College Students showed that 15.9% of graduates chose slow employment, an increase of 3 percentage points compared to 2021. In response to the phenomenon of "slow employment" among college students, based on the construction of Z School in Z City, combined with the reasons and impacts of slow employment among college students, this article proposes a circular structure diagnosis and intervention model of "state recognition-strategy matching-intervention implementation" based on behavioral analysis from the perspective of big data, provides suggestions for universities to build a quality improvement system for employment and education based on the fundamental task of "fostering character and civic virtue", and offers reference and suggestions for employment and education work in Zhuhai universities, so as to assist in talent education in higher education institutions.

Keywords: Big data, Behavioral analysis, Slow employment of college students.

1. INTRODUCTION

The report of the 20th CPC National Congress mentioned that employment is the greatest livelihood. College graduates are the most vibrant, dynamic, and creative group in social human resources, and are an important source of talent in China. Doing a good job in the employment of college graduates is of great practical and strategic significance for vigorously implementing the "strategy for invigorating China through science and education and strengthening talent support for modernization construction", promoting the sound and rapid development of China's economy and society, and building a harmonious society. The employment of college students is an important task for universities. Currently, China is facing a new situation of technological progress, industrial restructuring, slowing economic growth, sluggish external demand, and continuously increasing quantity of employment. The consequent employment problem is particularly prominent. The solution to employment problems requires mobilizing the power of the whole society, especially for universities that cultivate and transport talents to society, they should constantly innovate and practice in student employment work, and explore and implement the employment work model of "career starts from university" in the reform of talent training programs to adapt to the needs of the new situation.

2. OVERVIEW OF "SLOW EMPLOYMENT" OF COLLEGE STUDENTS: CONNOTATION, GENERATION LOGIC, AND IMPACT

At present, the academic community has not provided a clear and unified definition of the connotation of "slow employment" for college students. Lin Keji pointed out in his research that "slow employment" can be summarized as two phenomena: firstly, college students choose to

resume vocational training or exploration due to their own abilities and other short-term inability to find their target occupation, and temporarily suspend employment; secondly, due to the failure of senior students in taking part in the postgraduate entrance exams, taking part in the civil servant examination, and entrepreneurship, they continue to hope to achieve their career goals and realize their self-worth, so they choose to continue preparing and temporarily suspend employment [1] [2]. Based on the perspective of career planning, Shi Mingjie divided the phenomenon of "slow employment" into active slow employment and school-level slow employment [3]. This study combines research on the career development of college students conducted by municipal counselor studios and Z School, believing that slow employment of college students refers to the phenomenon of college students choosing overseas study tour, support education, accompanying their parents at home, relaxing at home, or conducting entrepreneurial research after graduation, rather than immediately seeking employment or continuing their studies, which presents a gradual consideration of their life path. According to the 2022 Survey Report on the Employability of College Students released by Zhaopin, which focuses on the dimensions of the career choice, employment expectation, job seeking mentality and behavior, and job progress of college students in 2022, it reflects the employment status of students with different educational backgrounds, majors, and graduation institutions. Among them, 15.9% of college students chose slow employment, an increase of 3 percentage points compared to 2021. This is also the second consecutive year after 2021, characterized by a decrease in the proportion of employees choosing to work in the unit and an increase in the proportion of "freelance work, slow employment". More people choose to continue their education, freelance work, and slow employment to alleviate their employment pressure, which is also one of the reasons for the emergence of "slow employment". Taking the 2022 graduates of Z School in Z City as an example, the proportion of students who still chose slow employment as of August reached 15%.

2.1 The Generation Logic of the Phenomenon of "Slow Employment" Among College Students

The generation logic of the phenomenon of "slow employment" among college students, from the perspective of individual factors, is a change in individual employment concepts and intergenerational changes in work values, which can be summarized as traditional values, modern values, and postmodern values, with postmodern values emphasizing the maximization of individual happiness. Based on this, the presentation of changes in the values of young college students in the new era requires new career education and guidance methods. At the same time, individual factors include motivation, ability, behavior, and outcomes of career development, as well as cognitive, emotional, and behavioral factors related to career development goals. From the perspective of individual career paths for college students, it mainly includes factors such as students' pathways to higher education, school characteristics and training methods, different characteristics of major admission, broad enrollment, and major adjustment. From the perspective of college students' family factors, they mainly include the influence of family parents, the positive or negative impact of career background, and the impact on future career expectations. From the perspective of the factors of the school where college students are located, it includes the school's educational philosophy, teaching environment, career education experience provided, role model influence, peer education, and other factors. From the perspective of social factors in which college students live, the environmental atmosphere in which they live, the guidance of relevant college entrance examination policies, economic development, cultural atmosphere, and other factors all have an impact on the phenomenon of slow employment among individual college students, making them show "slow" preparation, "slow" decision-making, and "slow" action [4].

2.2 The Impact of the Phenomenon of "Slow Employment" Among College Students

The student group of "slow employment" doesn't represent lack of employability, and some outstanding students during their school years have a negative impact on the career planning of lower grade students. One is that there is a correlation between academic ability and employment ability, as some students need to temporarily stay out of employment due to academic issues. Based on the analysis of the relationship between academic warnings and student employment in a certain college in Z School in Z City, it was found that 45 students in the 2022 class (Grade 2018) were warned of academic warnings, including 7 dropouts, 20 choosing employment, entrepreneurship or to go abroad, 4 waiting for employment, and 14 currently

studying. The implementation rate of graduates' career among students with academic warnings was 44.4%, which was much lower than the implementation rate of graduates' career without academic warnings. One was that among the temporarily unemployed group, there were students with scholarships, outstanding student honors, and a history of serving as student leaders, as well as outstanding individual students with provincial honors. These individuals played a role in role models for lower grade students during their school years, and if they chose to temporarily suspend employment, it would have a certain negative impact on lower grade students' future career planning and choices.

The impact of the "slow employment" student group on families and society includes that the student group of "slow employment", who is currently unemployed and has no source of income, is already in the adult stage, and if the individual's choices conflict with the family's economy and parents' beliefs, it will further lead to family conflicts, and on the other hand, it will also increase the pressure for individual students to integrate into society. If there are too many "slow employment" student groups, it will have a certain negative impact on enterprise talent recruitment, social development needs, and talent cultivation in universities.

3. DIAGNOSIS AND ANALYSIS OF COLLEGE STUDENTS' "SLOW EMPLOYMENT" BASED ON BEHAVIORAL ANALYSIS FROM THE PERSPECTIVE OF BIG DATA

Against the background of the widespread application of technologies such as big data, cloud computing, and artificial intelligence, university employment work needs to fully utilize the massive data accumulated on campus information construction platforms, analyze the behavioral phenomenon of "slow employment" among college students, and grasp the laws of student development and growth.

3.1 The "Slow Employment" of College Students Exhibits Explicit Behavior Based on Data Analysis

The report of the 20th CPC National Congress mentioned accelerating the construction of a strong online country and a digital China[6]. Promoting education digitalization means that, on the new

journey of realizing Chinese path to modernization, based on the existing information platform of universities, universities reflect students' job seeking status, job seeking habits and job seeking preferences, mainly including learning behavior, activity participation behavior, resume delivery behavior, etc., by analyzing online learning data, resume delivery, recruitment activity participation and other explicit behaviors. First, it is the learning behavior of career planning courses. It includes the attendance rate of students in class, the completion status of online learning resources, the online teacher-student interaction, the completion rate and score of homework, etc. Second, it is the participation behavior in the second classroom activity. The breadth, depth, and professional relevance of students' participation in second classroom activities can be classified and analyzed according to the professional ability model. Third, it is job hunting habits and preferences. It refers to whether students have formed certain job hunting habits and preferences. Fourth, it is the resume completion degree and behavior of delivery frequency. It includes the online access of students to school employment websites and other resources, as well as the frequency of participation in online and offline recruitment activities.

3.2 Slow Employment Groups Show a Lack of Achievement Orientation Compared with Various Data Of Non-slow Employment Groups

The pre-employment survey report of Z School in Z City showed that the achievement orientation score was the lowest among the 2022 freshmen. Individuals with high scores in the achievement orientation dimension tended to learn systematically from positive and negative experiences, viewing change as a normal state of life, an opportunity and challenge to promote their own growth rather than a threat to security. For individuals with low scores in the achievement orientation dimension, the opposite was true.

4. INTERVENTION MECHANISM FOR SLOW EMPLOYMENT OF COLLEGE STUDENTS BASED ON BEHAVIORAL ANALYSIS FROM THE PERSPECTIVE OF BIG DATA

Affected by the downward pressure of the economy and the COVID-19, college graduates have more difficulties in finding jobs, and the

employment situation is complex and severe. This study analyzes and compares the basic situation of graduates in school, their initial employment, career development, and career adaptation. The data is modeled using big data software and the career development path of college students is predicted. Effective solutions and methods are proposed accordingly, achieving a virtuous cycle of structural intervention model of "state recognition-strategy matching-intervention implementation", so as to provide suggestions for universities to build a quality improvement system for employment and education based on the fundamental task of "fostering character and civic virtue", offer reference and suggestions for employment and education work in Zhuhai universities, and assist in talent education in higher education institutions.

4.1 Using the Cultivation of Career Awareness as a Baseline to Enhance Internal Driving Force

The school strives to solve the problem of "slow employment", based on cultivating career awareness and enhancing internal driving force. It launches a pre-employment education project, conducts pre-employment research for new students, holds a college Career Experience Week activity, establishes career archives, and combines pre-employment education projects with education and teaching to achieve full process and coverage of employment education guidance. For four consecutive years, the participation rate of students participating in Career Experience Week activities has exceeded 90%. It has also conducted pre-research and interpretation of experience week reports to help colleges better understand students' career development status, predict potential problems that students may face in their career development and future employment, and provide precise guidance and early intervention to students.

4.2 Focusing on Controlling the Employment Process and Improving the Quality of Employment

In order to solve the problem of "slow employment", universities focus on controlling the employment process and improving the quality of employment. On the one hand, universities have conducted one-on-one employment talks with graduates to understand their employment intentions, grasp their employment trends, and further achieve precise guidance services. On the other hand, by conducting employment research

and Career Experience Week for college freshmen, universities have launched targeted second classrooms tailored to the characteristics of students in different periods.

4.2.1 Grasping Graduate Employment Trends in a Real-time Manner, and Adopting Three Rounds of "One-on-One" Employment Talks for Graduates

In order to fully grasp the employment trends of graduates, regular surveys should be conducted to understand the employment situation of each graduate and to determine whether each student has identified employment units and whether those who have not have identified potential employers. A total of three rounds of employment talks for graduates will be organized, with each round having a different focus. For example, the second round of employment talks should guide fresh graduates to fully communicate with family and friends during the Chinese New Year, integrate family and social relationship resources, and coordinate and solve difficult problems in their employment process. It's needed to register graduates with employment difficulties, understand their employment expectations, and propose assistance measures. The employment work leadership group of the school attaches great importance to the work of employment talks and conscientiously organizes, divides and summarizes the work of employment talks. It takes effective measures to carry out targeted conversations and help students with employment difficulties find employment smoothly. By timely understanding and mastering the situation of every graduate with practical difficulties, the school provides accurate basis for the next stage of work focus.

4.2.2 Combining with the Analysis of Pre-research Data, and Adjusting Special Activities According to the Prominent Characteristics of Different Grades

On the one hand, the school carries out diverse career planning activities, deepens the exchange of ideas between teachers and students, and provides a platform for students to showcase their own style. The school regularly holds various characteristic activities every year, such as a resume design competition, a "Have Hope, the Future Is Promising" youth speech competition, a career planning experience day, career character interviews, a peer education to promote growth:

career guidance summary and sharing meeting, a technology hub developer annual meeting: "Growth Record of Excellent IT Engineers", an online resume clinic, how to effectively play the role of career guidance, and sharing of knowing and doing of excellent students. In this academic year, the activity will be further upgraded to carry out online and offline activities, with offline competition and training, and online publicity and communication, so as to expand the influence of activities. On the other hand, the school innovatively implements special employment activities. The school will innovatively carry out the selection and employment of "100 recommendations, 1,000 positions" graduate recommendation officers, to specially hire 100 alumni entrepreneurs to serve as "alumni employment recommendation officers", recommending 1,000 positions, and to hire 100 industry-university-research cooperative entrepreneurs as the "enterprise mentor employment recommendation officers", recommending 1,000 positions. At the same time, it is an important responsibility and mission to promote the interaction and exchange between schools, students, and enterprises, create employment service platforms, open up channels for cooperation between schools and enterprises, and open up alumni communication platforms to assist the development of the school's education industry through the role of graduate recommendation officers. The school launches the "Assistance and Guarantee" program and coordinates the deployment of recruiting research assistants for 2023 graduates. For lower grade students, the school carries out a series of online career ability enhancement activities called "Beautiful Career, Lofty Ideal". At the same time, relying on a career characteristic studio, it carries out a series of online career ability enhancement activities such as "Appointment to Youth in the Name of Youth": Guangdong University Volunteer Service Western Plan Volunteer Exchange and Sharing, How to Make Your Resume Stand out, and How to Maximize the Value of Internship, and guides students to establish a positive job seeking mentality, join the job hunting campaign as soon as possible and implement their career development after graduation as soon as possible. The school carries out individual consultation of "Dispelling Doubts about Career, Lightening Dreams", takes employment work as an important part of fostering character and civic virtue, constantly enriches the connotation of employment education characteristics, constantly improves the quality of employment guidance services, carries out

psychological pressure relief and case counseling work for job hunting, and fully ensures the safety and stability of employment work.

4.3 Accelerating Job Hunting Actions with the Goal of Achieving Precise Services

In order to solve the problem of "slow employment", universities aim to achieve precise services and accelerate their job hunting actions. Universities rely on measures such as counselor characteristic studios, specialized employment new media platforms, and full coverage of employment mentors to effectively enhance the employability of graduates, enabling them to quickly engage in job hunting actions and implement their career development after graduation as soon as possible.

4.3.1 Relying on the Counselor studio, and Carrying out Career Planning Consultation and Psychological Counseling Activities for Graduating Students

The school better helps college students in terms of targeted guidance and assistance in career planning, employment and entrepreneurship, and students can receive one-on-one counseling on career planning. The consulting room regularly arranges counselors on duty every week to provide one-on-one personalized career guidance for graduates in terms of psychological adjustment, interview skills, and career positioning, guiding them to establish a correct career outlook. At the college level, a college level employment service center is established, committed to building a better employment and entrepreneurship information platform to provide timely recruitment information and employment services for graduates. The service center is committed to building a platform to provide employment services for graduates, organizing various enterprise lectures and job fairs, providing timely employment information for graduates, facilitating their timely access to relevant recruitment information, and increasing their chances of employment. At the same time, the center is committed to fully exploring and developing human resources. Through various skill training, it cultivates future entrepreneurs and other high-level talents who are proficient in both professional knowledge and practical business management, and cultivates composite talents with strong entrepreneurial and employment awareness and quality who can handle their own affairs. At the

school level, it establishes a school level student career planning guidance counselor studio, builds a work platform, broadens the development direction of the counselor team, and conducts in-depth research on career planning to better serve college students. The studio aims to foster character and civic virtue and is guided by the establishment of an excellent team of college counselors. It adheres to the principles of innovation, excellence, and distinctive consciousness, and studies and investigates the advanced experience and practices of Guangdong Province's universities in career education. Based on the characteristics of college students' career development, the studio coordinates and integrates advantageous resources both inside and outside the school, and constructs a career guidance content system, work system, and guarantee system.

4.3.2 *Providing Precise Services, Broadening the Way of Employment Information Transmission, and Building an Employment Exclusive Wechat Official Account*

With the rapid development of information technology, the information society has gradually entered people's vision. The arrival of the information society has made people's lives and work increasingly dependent on advanced communication networks. In addition to using the employment website of the school and college to publish the recruitment needs of employers, the school, in order to be close to the information society, gives full play to the effectiveness of employment information, conforms to the trend of the times, innovates the way of information transmission, and uses WeChat Official Account to publish to the graduate audience, and express the deepest views in the most refined words. WeChat has to some extent deepened the college's employment guidance for graduates. Taking Z School as an example, from September 2020 to August 2021, 526 pieces of enterprise recruitment information has been released through employment websites and WeChat Official Account, and more than 40,000 people have paid attention to them. The website and WeChat platforms have modules such as employment policies and guidance, and push employment related policies and guidance content at irregular intervals to further promote the employment of college students.

4.3.3 *Providing Precise Services, and Arranging Employment Mentors for Graduates, with "One Policy for One Student, One Mentor for One Student"*

On the basis of conducting classified research on students, the college has formulated the allocation and arrangement of student employment mentors, assigned responsibilities to individuals, and clarified the work philosophy of "caring for every student" as employment guidance education and service. School leaders and counselors are responsible for student employment education and assistance. Each person has targeted contact with about 10 students, often assisting them with their academic progress through phone calls, emails, or face-to-face interviews. Graduates are recommended by professional mentors to intern, work, and sign contracts with companies. At the same time, it also regularly arranges meetings for students and employment mentors, organizes mentors to go deep into student dormitories to answer questions and clarify doubts for students, enhances communication and exchange between students and mentors, and encourages them to establish correct employment concepts. Based on student feedback, it is understood that this measure has a good answer and assistance effect for the problems and difficulties faced by students in the postgraduate entrance exams and employment, and the effect is obvious.

4.4 *Taking All-round Collaboration as a Guarantee, Forming a Joint Force for Employment and Education*

In order to solve the problem of "slow employment", universities take all-round collaboration as a guarantee to form a joint force for employment and education. By strengthening guidance, communication, and training, universities enhance the professional competence of employment teams and build an all-round employment and education model of "enterprises + parents + professional mentors + employment specialists + graduating class counsellors + class career commissioners".

4.4.1 *Strengthening Guidance, Enhancing Professional Skills, and Providing Comprehensive Services*

The college cooperates with the school to provide comprehensive and multi-level

employment education, guidance, and services for graduates. Both school and college levels organize online and offline employment guidance lectures, starting from lower grades to graduates, to intersperse with corresponding special reports and lectures on life philosophy, values, employment policies, employment situation, employment concepts, and job hunting skills, so as to help graduates establish correct work, development, and career perspectives, enhance their confidence and sense of social responsibility in participating in social competition, and enable them to quickly adapt to social life.

4.4.2 *Scientifically Cultivating Talents, Strengthening External Communication and Training, and Enhancing the Professional Competence Level of the Team*

It deepens education and teaching reform, strengthens the quality of talent cultivation, and enhances the competitiveness of graduates in employment. The first is to optimize the professional structure. It promotes the revision of the school's professional development plan through the linkage of "recruitment, training, and employment" and the analysis of employment quality reports. The second is to innovate talent cultivation models and improve students' comprehensive qualities. It actively promotes the coordination and innovation of multiple departments in teaching and student affairs, and comprehensively promotes innovation and entrepreneurship education. The third is to strengthen theoretical research and improve the level of specialization in employment work.

4.4.3 *Alumni Collaboration to Form a Joint Force to Promote Student Employment*

It strengthens responsibility and builds an employment guidance model of "enterprises + parents + professional mentors + employment specialists + graduating class counselors + class career commissioners", fully leveraging the linkage of multiple parties such as family, school, and enterprise to form a joint force in employment work and carry out "plane-to-point" and "point-to-plane" work. It fully mobilizes comprehensive resources to assist graduates in finding employment, encourages faculty to actively recommend fresh graduates to employers, and provides certain rewards based on

the recommendation results. It implements and promotes various employment policies, strengthens policy promotion for graduates, and enables students to know, understand, and make good use of policies. The policies include, for example, subsidies for employment, entrepreneurship, job hunting, as well as employment policies; strengthening employment information services for graduates, collaborating with industry enterprises, industry-university-research cooperation enterprises, and alumni enterprises to carry out targeted recruitment work; actively guiding graduates towards grassroots employment, independent entrepreneurship, and three supports and one assistance; enhancing the targeted employment guidance services and doing a good job in assisting disadvantaged groups; strengthening the construction of the employment work system for graduates of secondary colleges, and promoting the construction of employment guidance courses and teams. It strengthens the publicity efforts during the employment period, making students feel a strong employment atmosphere.

5. CONCLUSION

In summary, this article brings new ideas and working mechanisms to the diagnosis and intervention of "slow employment" among college students based on behavioral analysis from the perspective of big data. At the same time, it presents difficult to observe phenomena in a data-driven manner. Based on data analysis, the "slow employment" of college students shows explicit behaviors. Slow employment groups show a lack of achievement orientation compared with various data of non-slow employment groups. Starting from the implementation of employment policies, broadening employment channels, paying attention to the disadvantaged groups in employment, and paying attention to the psychology of students, this article believes that it is necessary to fully leverage the linkage between families, schools, and enterprises, form a joint force in employment work, carry out "plane-to-point" and "point-to-plane" employment work, and promote college students to change their employment ideas in accordance with the new situation, and smoothly pass the job hunting and career selection period, which can provide certain theoretical basis and reference for the practical research of "slow employment" in behavioral analysis.

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