

Psychological analysis and strategies for college students' "slow employment" in the context of smart education

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Abstract. Against the backdrop of the deep integration of smart education, the innovation of information management technology, and the rapid development of the digital society, the phenomenon of college students' "slow employment" has taken on new characteristics. Based on empirical data, this paper analyzes the psychological causes of college students' slow employment and proposes intervention strategies by combining smart education platforms, information management systems, and digital social resources. The study finds that unclear career planning, employment expectation deviation, insufficient stress resistance, and social environmental influences are the core psychological factors of slow employment, and there are significant differences in the forms of slow employment among different groups. By constructing an intervention system of "precise assessment-intelligent matching-digital empowerment," this research provides theoretical and practical references for improving the employment decision-making efficiency of college students and promoting a virtuous connection between education and the labor market.

1 Introduction

With the deep integration of technologies such as artificial intelligence and big data into educational scenarios, smart education has shifted higher education from knowledge transmission to competency cultivation, transforming educational goals from simple knowledge accumulation to diverse vocational ability construction. Meanwhile, the rapid evolution of the digital society has reshaped the logic of the employment market, with new forms such as flexible employment and remote work emerging continuously, challenging traditional employment paths[1,2]. "Slow employment," as a new strategy for college students to cope with employment pressure, refers to delaying entry into the workforce through postgraduate studies, civil service preparation, home-based job searching, etc., with an increasing proportion over recent years[3,4]. This phenomenon reflects not only individuals' cautious thinking about career development but also the structural mismatch between educational supply and market demand. Analyzing the psychological mechanisms

of college students' slow employment and leveraging the technical advantages of smart education, information management, and the digital society to optimize career planning, improve job matching efficiency, and enhance psychological adjustment capabilities are of great practical significance for promoting high-quality employment and facilitating positive interaction between education and the labor market[5,6].

2 Current status of college students' slow employment

2.1 Proportions and forms of slow employment

According to the China College Graduate Employment Quality Report (2023) by the Ministry of Education and data from the International Labour Organization (ILO), the phenomenon of slow employment has shown a steady increase in the past five years. Table 1 indicates that the proportion of college students choosing slow employment rose from 18.7% in 2020 to 25.3% in 2023, with "postgraduate studies" and "civil service preparation" accounting for the highest proportions (35%-40% and 20%-25% respectively), reflecting the intensifying competition for higher education and stable institutional jobs[7,8]. Geographically, the slow employment rate in economically developed regions (28.6%) is 9.4 percentage points higher than that in less developed regions (19.2%), indicating the supporting role of family economic capital in career exploration—students from high-income families have stronger economic tolerance to bear the opportunity cost of slow employment, while those from low-income families tend to "seek employment first and then career development" due to economic pressure [9,10].

Table 1. Proportions and Forms of College Students' Slow Employment, 2020-2023 (%).

Year	Slow Employment Proportion	Postgraduate Studies	Civil Service Preparation	Home-Based Job Search	Gap Year/Study Abroad	Others
2020	18.7	35.2	22.1	20.5	12.3	9.9
2021	20.5	36.8	23.4	19.7	11.2	8.9
2022	23.1	38.5	24.6	18.3	10.8	7.8
2023	25.3	40.1	25.2	17.5	9.6	7.6

2.2 Group differences in slow employment

Students from different academic backgrounds exhibit significant differences in slow employment forms: liberal arts students, due to their broader career adaptability and higher compatibility with institutional jobs, have higher proportions of choosing civil service preparation (28.3%) and postgraduate studies (42.6%) compared to science and engineering students (19.7%, 35.2%). The latter group tends more to "wait at home for professional job matching" (22.4%), reflecting their strict screening for job-specific technical requirements, which is characteristic of clear career boundaries and high skill-matching demands in STEM fields. Family background also plays a crucial role: students from high-income families (monthly income > 15,000 RMB) have a slow employment rate (31.2%) 2.3 times higher than those from low-income families (< 5,000 RMB), indicating that economic resources directly influence career decision-making space—high-income families provide more trial opportunities for their children, while low-income students face more urgent employment pressure.

3 Psychological causes of college students' slow employment

3.1 Unclear career planning: dual dilemma of self-cognition and environmental adaptation

Unclear career planning is a core psychological feature of slow employment groups, with 62.3% of slow-employed students admitting "lack of a clear career goal." This cognitive dilemma stems from the lag in university career planning education and the complexity of emerging occupations. On one hand, traditional career planning courses often remain theoretical, with 45.7% of students reporting "no systematic career assessment or guidance during university," leading to a cognitive gap between academic studies and career needs. For example, marketing students often fall into a cycle of "extensive applications-frequent trials-decision delays" due to inability to distinguish the competency requirements of different marketing roles (e.g., market research vs. brand planning). On the other hand, emerging occupations in the digital economy (e.g., data analysts, cross-border e-commerce operators) require rapidly evolving skills, which are not timely reflected in university curricula. Students face exploration anxiety when confronting unfamiliar career fields, leading them to use slow employment as a period to gather more career information and alleviate decision-making uncertainty.

3.2 Employment expectation deviation: cognitive conflict between ideal and reality

The psychological gap caused by excessively high employment expectations is an important incentive for slow employment. The "China College Student Employment Stress Report (2022)" points out that 78.5% of the surveyed students expect a starting salary of more than 8,000 yuan per month, while the average starting salary of college graduates nationwide in 2023 is only 5,990 yuan per month, resulting in a 33.4% gap in salary expectations between the supply and demand sides. This deviation is not only reflected in the salary level but also manifested as strict demands for the working environment and career development platforms. Approximately 32.6% of students with slow employment clearly state that they will not consider jobs in non-well-known enterprises or non-core positions. Some graduates from "Double First-Class" universities, after missing out on offers from leading enterprises multiple times, choose to take the postgraduate entrance examination for the second time or prepare for the civil service examination full-time. Essentially, they maintain their expectations for ideal positions by delaying employment and avoid the psychological impact of unfulfilled expectations. This obsession with "idealized careers" traps them in a passive waiting state in the real employment market.

3.3 Insufficient stress resistance: psychological barrier to workplace adaptation

The fast pace and high uncertainty of modern workplaces pose challenges to college students' psychological resilience, with 29.1% of slow-employed students admitting "delaying employment due to fear of workplace pressure." This adaptive barrier manifests in both task and interpersonal stress resistance: during internships, 25.6% of students give up 转正 opportunities in Internet companies due to inability to withstand overtime pressure or performance evaluations, choosing to return home for exam preparation. Excessive family protection is a key cause, as 63.8% of slow-employed students come from "parent-dominated" families, lacking practical experience in independently coping with setbacks,

which leads to avoidance behavior when facing workplace challenges. They view slow employment as a buffer period to improve psychological resilience.

3.4 Social environmental drivers: external shaping by cultural pressure and resource disparities

Social and cultural values, along with family background, drive slow employment. Mainstream society's narrow view of "successful careers" creates pressure, pushing some students, especially rural - origin ones, to choose slow employment to meet expectations. Economic capital matters too: high - income students are more likely to opt for slow employment, while low - income ones rush to work due to financial stress. Moreover, the "slow employment atmosphere" on campus is contagious; seeing such cases in class or dorm can boost other students' slow - employment willingness by 18.7%, highlighting the social environment's impact on individual decisions.

4 Intervention strategies based on smart education and the digital society

4.1 Precise career planning empowered by smart education

Smart education platforms integrate technologies to build a “assessment - experience - connection” career planning support system. AI - driven tools like the digital Holland Code analyze students' multi - dimensional data, such as interest surveys, academic performance, and internships. They generate personalized career profiles, identifying self - cognition biases and helping students find potential career paths, thus solving traditional assessment issues. VR - based simulation courses reproduce real workplaces like Internet company project rooms or government offices. Students engage in tasks like product launch planning via VR, correcting idealized career views. Tsinghua's “Virtual Workplace Laboratory” has increased students' career decision - making efficiency by 40% and cut information collection time by 35% across over 30 industries. Blockchain - enabled alumni platforms integrate alumni data on education, career progress, and entrepreneurship. Students can retrieve real - case sharing from same - major alumni, learn industry trends, and speed up career exploration.

4.2 Enhanced employment matching efficiency through information management

Big - data and algorithm - based employment platforms solve the employment market's information asymmetry. Using natural language processing, they parse job ads to extract key requirements and build students' dynamic ability profiles. Deep learning algorithms match job needs with students' skills, generating visual “Job - Competency Matching Reports” that show matches and gaps, increasing matching accuracy from 35% to 72% (OECD, 2022). The platform also has an intelligent policy interpretation module. It tracks civil service and other job - related policies, analyzes them with semantic technology, and helps students assess job pros and cons, preventing policy - related decision - making delays.

4.3 Strengthening psychological resilience with digital social resources

Digital resources are integrated to build a “prevention - intervention - support” psychological resilience system. Prevention involves gamified stress - simulation apps with scenarios like project crises. Students practice stress - coping skills through role - play and get real - time guidance. An AI psychological mentor system, using emotion - computing technology, offers 24 - hour counseling and intervenes in students' irrational thoughts with a cognitive - behavioral model, reducing students' anxiety by 26% in a university pilot. Anonymous digital communities are set up for slow - employment students to share experiences, form study groups, and build a peer - support network, reducing stress and isolation.

4.4 Guiding diverse employment values through digital culture

Smart education platforms and social media build an inclusive employment culture system. Universities create “Career Diversity” micro - courses, featuring freelancers, entrepreneurs, etc., to break the “system/famous - firm - only” mindset. Big data monitors employment - related public opinion, filters out anxiety - causing info, and promotes the “grow first, then succeed” employment concept. The “Parent Digital Classroom” helps parents understand job market trends, set reasonable expectations for their children, reducing family - induced irrational slow - employment decisions and forming a coordinated school - society - family support network.

5 Conclusions

The slow employment of college students, a complex phenomenon in the context of smart education and digital - society transformation, involves intertwined psychological mechanisms of individual cognitive biases, educational lags, and social influences. This study, using empirical data, reveals core factors like unclear career planning and proposes intervention strategies integrating smart - education, information - management, and digital - society tech. Future research can use neurocognitive tech for deeper insights. Only by building a coordinated support system of tech empowerment, psychological adjustment, and cultural guidance can students make rational employment decisions, transform education achievements into productivity, and balance personal and social needs.

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