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A study on the impact of career planning on employability among college students in Hebei Province, China

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Abstract: With the deepening of educational reform in China, higher education has shifted from elite education to mass education, that leading to an annual increase in the number of graduates. However, many college students lack the corresponding competitiveness in the job market. Therefore, enhancing the employability of college students to increase competitiveness has become crucial. Drawing on the Career EDGE employability model as the theoretical framework, this study explores the impact of career planning on employability among college students, with learning attitude as a mediating variable. Through convenient sampling of college students in Hebei Province, China, 430 valid questionnaires were used to empirically test the theoretical hypothesis model. The results indicate that career planning has a direct impact on employability, and learning attitude also has a direct impact on employability. After incorporating learning attitude as a mediating variable, it was found to partially mediate the relationship between career planning and employability.

Keywords: Career planning, Employability, Learning attitude.

1. Introduction

The data from the "2022 China Graduate Employment Report" released by the Central People's Government of the People's Republic of China shows that the number of graduates in 2022 has exceeded 10 million for the first time, reaching historical highs in both incremental and overall numbers [1]. However, the employment rate of graduates in 2022 was 50.4%, a decrease of 6.5% compared to 2021[1]. With the expansion of higher education and the persistent high youth unemployment rate, the issue of employability among college students has attracted scholarly attention in fields related to higher education and human capital [2]. Resolving the issue of college student employment requires addressing employability enhancement and exploring strategies to cultivate talents that meet the needs of social development [3].

Employability is a crucial factor in maintaining sustainable employment in the current turbulent employment system. It also represents a capability to adapt, enabling individuals to be sufficiently prepared to face current employment situations through professional domain learning and acquisition of job-related skills, while maintaining competitiveness and continuously developing professional skills [4]. According to the Career EDGE-The Key to Employability model proposed by Dacre and Sewell [5], in order for college students to develop their employability, they must strengthen their enhancement of five elements: career development learning, work-life experiences, professional knowledge and skills, generic skills, and emotional intelligence (first level), and continuously reflect on and evaluate these experiences (second level), thereby promoting the development of higher levels of self-efficacy, self-esteem, and self-confidence, which are crucial for employability development. Career planning, as a part of college students' generic skills, falls within the realm of planning, coordination, organization, and management abilities and is key to enhancing employability [5]. Chughtai [6] confirmed in their research that college students' career planning positively influences their perceived employability. Thus, it is evident that career planning plays a significant role in enhancing the employability of college students.

According to [6], the Career EDGE employability model indicates that providing students with opportunities to acquire necessary skills, knowledge, understanding, and attributes at the first lowest level is crucial. However, it is equally important to provide opportunities for students to reflect on and evaluate their learning experiences that have already occurred. Without these opportunities, students would not be able to fully consider how far they have come in developing employability skills and what further steps might be necessary for further development. Learning attitude falls within the second level of the Career EDGE employability model, which focuses on reflection and evaluation [6]. Fadhil, et al. [7] argue that students with positive learning attitudes tend to demonstrate greater effort in future learning, actively engage in thinking about and expanding their perspectives and imagination related to stronger future learning achievements and employability. Similarly, Dacre , et al. [8] also confirmed that students' positive learning attitudes significantly predict their employability. Therefore, learning attitude is recognized as an important factor influencing the enhancement of college students' employability [9].

According to Dacre and Sewell [5] and their Career EDGE employability model, schools can help students develop clear career plans that align with their aspirations by providing high-quality career guidance. This clarity in career planning enables students to establish clear learning goals, leading to a more positive learning attitude. A positive learning attitude motivates students to actively engage in learning and acquire more knowledge and skills. This, in turn, contributes to enhancing students' future employability [10]. Fan and Pan [11] found in their research that students who develop comprehensive career plans during their school years can clarify specific goals for each stage of their university education. This clarity allows students to approach their learning in a systematic and progressive manner, thereby stimulating their motivation to learn and fostering a positive learning attitude. Consequently, students are more inclined to exert greater effort in achieving their plans and goals. Through the process of diligently pursuing their objectives, they acquire a broader range of knowledge and skills relevant to employability, thereby enhancing their future employability prospects.

Hebei Province in China is an important hub in the coordinated development strategy of the Beijing-Tianjin-Hebei region. The province has a large number of universities with a wide distribution, but the levels of employment vary. According to statistics, the number of university graduates in Hebei Province was 442,300 in 2021, surpassing 520,000 in 2022, showing a gradual increase. However, the number of employment opportunities provided by the market is extremely limited and unable to meet the demands of Hebei Province's university graduates [12]. At the same time, the coordinated development of the Beijing-Tianjin-Hebei region has significantly increased the supply of human resources, intensifying competition among Hebei Province's university students and increasing employment pressure. From 2019 to 2022, the overall employment of graduates, Hebei Province has been declining [13]. In response to the employment of graduates, Hebei Province has introduced a series of policies, most of which aim to quickly alleviate the problem of graduate retention, while neglecting the cultivation of graduates' actual employability. Many universities are actively reforming their talent cultivation models and conducting in-depth career planning education to stimulate the potential of university students, enhance their personal competitiveness, and improve their employability.

Currently, there is considerable attention on the employability of Chinese university students. However, research on the employability of university students in China started relatively late, and there is a scarcity of theories and empirical studies on employability that are specific to the local context [2]. Therefore, this study is based on the Career EDGE employability model and investigates the mediating role of learning attitude among university students in Hebei Province, China, in the relationship between career planning and employability. The aim is to validate the applicability of the Career EDGE employability model in the Chinese context, thus providing a basis for future researchers to conduct studies on the employability of university students in Hebei Province, China. Additionally, this study aims to offer insights for enhancing the employability of university students in present-day Hebei Province, China.

2. Literature Review

2.1. The Impact of Career Planning on Employability

According to the Career EDGE employability model, career planning is situated within the realm of planning, coordination, organization, and management abilities among university students, representing a key aspect in enhancing employability [5]. Healy, et al. [14] underscored the significant role of career planning in enhancing the employability of university students. They emphasized that for university students to accurately position their career goals, they need to continuously enrich and refine themselves under the guidance of career planning, explore their potential, and enhance their professional qualities to prepare for the development of future employability. Additionally, Gould [15] equated career planning with goal setting [16], suggesting that employees engaged in career planning set specific and challenging career goals for themselves. According to goal-setting theory [17], these goals motivate employees to develop and implement career strategies to achieve them. The effective implementation of career strategies enables employees to achieve their career goals and subsequently enhances their employability [18].

According to the Vocational Construction Theory, students, through career exploration, can reevaluate themselves, strengthen their skills, and formulate corresponding strategies to achieve their goals, thereby enhancing their employability. That is, career planning is positively correlated with perceived employability [19]. Shury [20] suggests that career planning is crucial for university students to effectively seek employment, achieve career satisfaction, and acquire employability, especially in challenging and constantly changing work environments [21]. Students' engagement in career planning helps them better understand their career aspirations, enabling them to formulate effective strategies and advance their career planning and outcomes, thereby enhancing their employability [22]. Clements and Kamau [18] argue that engaging in a series of behaviors such as career exploration, career action, and assessment and adjustment to refine career planning helps individuals clarify their career development direction and goals, enhance their comprehensive understanding of themselves, gain a comprehensive understanding of their career interests, and analyze the requirements of careers, thereby enhancing their employability. Based on this, the following hypothesis is proposed:

H:: Career planning among university students in Hebei Province, China, has a significantly positive impact on employability.

2.2. The Impact of Career Planning on Learning Attitude

Whiston, et al. [23] found in their study that students who have some level of career planning tend to exert effort towards their plans in the future, diligently studying professional knowledge. They concluded that reasonable career planning plays a positive role in shaping the learning attitude of college students. Hidayat and Alsa [24] suggested that students who engage in rational thinking about their future based on institutional considerations and plan their career development can make more rational and appropriate career plans, which in turn can improve their learning attitude. Sepahvand, et al. [25] pointed out in their research that career planning has a positive impact on psychological capital. Psychological capital refers to the positive psychological states exhibited by individuals during their growth and development, including traits such as confidence and optimism. A positive and optimistic attitude is an important component of psychological capital, so career planning has a positive influence on learning attitude.

In a cross-cultural study focusing on adolescents, Andre, et al. [26] discovered that career planning among adolescents from different cultural backgrounds, socio-economic systems, and countries with

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diverse historical contexts plays a crucial role in shaping individual learning attitudes. Particularly in countries characterized by high political and economic uncertainty, adolescents who engage in rational career planning may develop strong motivation to contemplate their future. In order to achieve their optimal expectations, they are inclined to adopt a more proactive learning attitude in their future studies. Supporting this, Goetsch, et al. [27] found that students who commence career planning earlier exhibit more positive learning attitudes compared to those who initiate this process later. Moreover, providing students with specialized career planning education assists them in gaining a genuine understanding of themselves, delineating learning objectives, and striving to achieve their life aspirations through dedicated learning efforts. Such interventions effectively harness students' enthusiasm for learning and rectify their learning attitudes. Based on these observations, the following hypothesis is proposed:

H₂: Career planning among university students in Hebei Province, China, has a significantly positive impact on learning attitude.

2.3. The Impact of Learning Attitude on Employability

According to the Career EDGE employability model proposed by Dacre and Sewell [5], it is crucial to provide students with opportunities to engage in and develop aspects such as career development learning, work and life experiences, professional knowledge and skills, general skills, and emotional intelligence, which constitute the lower level of the model. However, it is equally important to fundamentally reflect on and evaluate these experiences. Such reflection can lead to the development of higher levels of self-efficacy, confidence, and self-esteem, ultimately enhancing employability. Learning attitude belongs to the higher level of reflection and evaluation within the Career EDGE employability model. Positive attitudes are beneficial for enhancing employability [9]. Fan and Pan [11] found in their research that if students can acquire sufficient hard and soft skills (such as problem-solving, positive learning attitude, communication, and teamwork) during their school education, it will help reduce learning disparities and, consequently, enhance their future employability.

In their study on graduate employability, Fadhil, et al. [7] identified four variables that significantly influence employability: attitude, integrity, learnability, and motivation. The research confirmed that learning attitude has a significant impact on employability. Xiao Jiachun [28] demonstrated in their research that academic performance, as part of learning attitude among university students, has a significant direct effect on employability. Werner [29] emphasized that having a positive learning attitude is essential for university students to excel in employability. Dalrymple, et al. [30] conceptualized employability as a process rather than a fixed outcome. Employability is not a stable and enduring state that can be indefinitely achieved and maintained, as it depends on numerous dynamic personal and environmental factors. For instance, an individual's employability can be enhanced or weakened due to fluctuations in their emotions, attitudes (including learning attitude), and other factors [31]. Additionally, Rothwell and Hardie [32] found in their study that students' learning attitudes have a significant positive impact on certain components of employability. Based on these findings, the following hypothesis is proposed:

H_s: Learning attitude among university students in Hebei Province, China, has a significantly positive impact on employability.

2.4. The Mediating Effect of Learning Attitude on the Relationship between Career Planning and Employability

According to the Career EDGE employability model proposed by Dacre and Sewell [5], schools, through career guidance, assist students in formulating rational career plans. This helps students gain a comprehensive understanding of their chosen field of study, self-awareness, identification of strengths and weaknesses, and clarification of learning objectives. Consequently, this optimization of learning attitude enhances students' motivation for learning, reduces learning blindness, and ultimately improves their future employability. Okolie, et al. [10] found in their study on higher education in Nigeria that providing effective career planning guidance in schools helps students formulate individualized career

plans, which, in turn, facilitates the development of their knowledge, skills, and attitudes, thereby enhancing their employability.

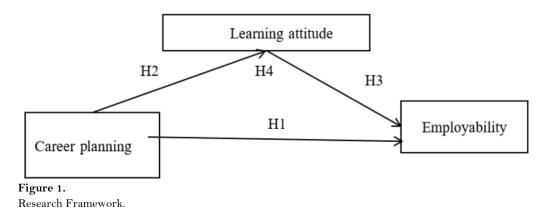
Wang, et al. [33] argue that career planning, while enhancing students' overall quality, helps them identify preferred career directions. Understanding their career plans can stimulate students' interest and motivation for learning, leading to a more positive learning attitude in future studies. This purposeful improvement in future employability skills and qualities subsequently enhances employability. In a study by Sepahvand, et al. [25], it was found that career planning has a positive impact on learning attitude, and students with a positive learning attitude tend to have a positive effect on their employability. Additionally, Healy [31] suggests that career planning not only assists individuals in matching suitable careers but also motivates students to adopt exploratory, proactive, and adaptive career learning behaviors. It helps them reflect on their career learning attitude and reflecting on knowledge and experiences relevant to future careers, thus promoting the improvement of employability. Based on these findings, the following hypothesis is proposed:

H.: Learning Attitude Among University Students in Hebei Province, China, Mediates the Relationship Between Career Planning and Employability.

3. Research Methodology

3.1. Research Framework

This study is based on Dacre and Sewell [5]'s Career EDGE employability model as the theoretical foundation. It focuses on university students in Hebei Province, China, exploring the impact of their career planning and learning attitudes on employability. Additionally, it investigates the mediating role of learning attitudes between career planning and employability. The research methodology involves the use of Structural Equation Modeling (SEM) to validate the theoretical model. The research framework is depicted in the diagram below:



3.2. Research Subjects and Procedures

Hebei Province is located in the center of the Beijing-Tianjin-Hebei Economic Circle and the Bohai Sea Economic Circle, making it an important province in China [34]. With a large population and numerous higher education institutions, Hebei faces significant pressure in terms of employment for college graduates. As the number of university graduates has been increasing rapidly due to the expansion of higher education enrollment, the employment situation is becoming even more challenging. The Hebei Provincial Committee and Government have consistently adhered to a strategy prioritizing employment and made every effort to ensure the stability of the employment situation [35]. Enhancing the employability of college students in Hebei Province to further alleviate employment

contradictions has become an urgent issue requiring optimization of employment policies in the province. Therefore, this study focuses on college students in Hebei Province as the research subjects.

First, a preliminary sample was selected, consisting of 135 college students from one university, to avoid duplicate sampling between the preliminary and formal samples. Questionnaires were distributed via the internet, and students were asked to scan the QR code to fill them out on-site. The formal sample was selected using convenience sampling from five universities in Hebei Province, including two in Shijiazhuang, one in Baoding, one in Langfang, and one in Hengshui. These five universities cover comprehensive universities, engineering universities, and normal universities, ensuring a relatively even sampling distribution across university types. To ensure the quality of the survey data, student management teachers from the five universities were contacted. They were responsible for organizing the sampling of students, informing them of the precautions for filling out the questionnaires, and urging them to respond seriously. One hundred questionnaires were distributed at each university, totaling 500 formal questionnaires distributed. After excluding invalid questionnaires, a total of 430 valid questionnaires were collected, including 177 males and 253 females, with 50 freshmen, 67 sophomores, 156 juniors, and 157 seniors.

3.3. Research Instruments

3.3.1. Career Planning Scale

The revised Gould [15] Career Planning Scale, adapted by Koen, et al. [36], was used for measurement. The scale includes items such as "I have plans for my career" and "I know what I need to do to achieve my career goals," totaling 3 items. The reliability analysis of the preliminary scale yielded a Cronbach's α value of .848, indicating good reliability. Confirmatory Factor Analysis (CFA) was conducted on the questionnaires collected during the formal phase. Since the scale comprises 3 items, the result obtained was a saturated model. A saturated model assumes that all parameters in the model to be estimated are exactly equal to the elements in the covariance matrix. In this case, all parameters in the model have a unique solution, meaning the model has zero degrees of freedom, and the chi-square value is also zero. A saturated model is always identified and perfectly fits the data. Therefore, fit indices are not estimated, and only path coefficients are of interest [377]. The factor loadings of the items ranged from 0.782 to 0.854, with a Construct Reliability (CR) of 0.856, exceeding the evaluation standard of 0.60. The Average Variance Extracted (AVE) was 0.666, surpassing the evaluation standard of 0.50, indicating good construct validity and discriminant validity of the scale.

3.3.2. Learning Attitude Scale

The Learning Attitude Scale, revised by Xu, et al. [38], was used for measurement. This scale assesses attitudes across three dimensions: cognitive, affective, and behavioral attitudes, comprising a total of 27 items. During the preliminary questionnaire item analysis, items 6, 7, 8, and 9 of the second dimension did not meet the standards and were therefore deleted. The reliability analysis of the preliminary scale yielded a Cronbach's α value of .957, indicating excellent reliability. CFA was conducted on the questionnaires collected during the formal phase. The factor loadings of the items ranged from 0.651 to 0.825, with a CR of 0.960, exceeding the evaluation standard of 0.60. The AVE was 0.512, surpassing the evaluation standard of 0.50, indicating good construct validity and discriminant validity of the scale. Overall fit indices of the scale were as follows: SRMR = .038, $\chi^2/df = 1.852$, GFI = .928, AGFI = .912, PGFI = .763, NFI = .917, IFI = .960, CFI = .960, PNFI = .823, RMSEA = .045. Most indices met the standards, indicating good fit.

3.3.3. Employability Scale

The Employability Scale, revised by Cheng and Dong [39], was used for measurement. This scale includes four factors: basic skills, social practice skills, professional ethics, and job-seeking skills,

comprising a total of 16 items. The reliability analysis of the preliminary scale yielded a Cronbach's α value of .965, indicating excellent reliability. CFA was conducted on the questionnaires collected during the formal phase. The factor loadings of the items ranged from 0.662 to 0.876, with a CR of 0.955, exceeding the evaluation standard of 0.60. The AVE was 0.570, surpassing the evaluation standard of 0.50, indicating good construct validity and discriminant validity of the scale. Overall fit indices of the scale were as follows: SRMR = .042, $\chi^2/df = 2.631$, GFI = .936, AGFI = .912, PGFI = .688, NFI = .922, IFI = .950, CFI = .950, PNFI = .768, RMSEA = .062. Most indices met the standards, indicating good fit.

4. Research Findings

4.1 Correlation Analysis

As shown in Table 1, the mean values of the variables for career planning, learning attitude, and employability are 3.238, 3.512, and 3.617, respectively. The standard deviations of these variables range from 0.501 to 0.858. Moreover, the correlation analysis indicates significant positive correlations (p < 10.001) among the variables. The correlation coefficients range from 0.401 to 0.501, suggesting a moderate to low degree of correlation among them without multicollinearity issues. Therefore, the overall model can be validated.

Table 1.

Variables	Mean	Standard deviation	Career planning	Learning attitude	Employability
Career planning	3.238	0.858			
Learning attitude	3.512	0.546	0.401***		
Employability	3.617	0.501	0.487***	0.501***	

Note: ***p<0.001.

4.2. Overall Model Path Analysis

This study conducted an analysis of the overall model paths for career planning, learning attitude, and employability among university students. Initially, the goodness of fit of the model was assessed. Following the criteria proposed by Hair, et al. [40], the assessment included measures of absolute fit, incremental fit measures, and parsimonious fit measures. In terms of measures of absolute fit, the χ_2 value was 31.214 with 32 degrees of freedom, resulting in a χ^2/df ratio of 0.975, which is within an acceptable range [41]. Additionally, the RMR was 0.012, SRMR was 0.0212, RMSEA was 0.000, GFI was 0.986, and AGFI was 0.975, all meeting the criteria of 0.9 (Hair et al., 2018). Furthermore, for incremental fit measures, NFI was 0.981, IFI was 1.000, and CFI was 1.000, all exceeding the standard of 0.90. Regarding parsimonious fit measures, PNFI, PGFI, and PCFI were 0.698, 0.573, and 0.711, respectively, all surpassing the threshold of 0.50. These results indicate that the overall model demonstrates good fit and can be analyzed further.

As shown in Table 2, university students' career planning has a significant positive effect on employability, with a path coefficient of 0.365 (P < 0.001). Additionally, career planning has a significant positive effect on learning attitude, with a path coefficient of 0.492 (P < 0.001), and learning attitude has a significant positive effect on employability, with a path coefficient of 0.491 (P < 0.001). This implies that university students' career planning and learning attitude contribute to enhancing their employability. Students who excel in career planning and possess positive learning attitudes demonstrate stronger employability. Therefore, hypotheses H1, H2, and H3 are all supported.

In terms of the mediation model, the Bootstrap Method was employed to test the mediating effects. Mackinnon, et al. [42] compared the performance of traditional methods, the product of coefficients method, and five nonparametric Bootstrap methods in mediating effect analysis, finding that the biascorrected nonparametric percentile Bootstrap method provides the most accurate confidence intervals for mediating effects with the highest statistical power. In this study, the resampling process was conducted 5000 times. The results of the mediation effects test are presented in Table 2 and Figure 2.

The total effect of career planning on employability is 0.607, with a 95% confidence interval of [0.512, 0.688], which does not include 0, indicating a significant total effect. The indirect effect of learning attitude between career planning and employability is 0.242 (p < .001), with a 95% confidence interval of [0.173, 0.336], which also does not include 0, demonstrating a significant indirect effect. This suggests that university students' career planning can enhance employability through strengthening learning attitude, verifying the partial mediating effect of learning attitude. In other words, university students' career planning not only positively influences employability directly but also indirectly affects employability through learning attitude. Therefore, research hypothesis H4 is supported.

Table 2.

Path	Effect	P-value	Confidence interval (95%)	
Direct effect				
Career planning \rightarrow Employability	0.365	0	[0.245, 0.477]	
Career planning \rightarrow Learning attitude	0.492	0	[0.388, 0.594]	
Learning attitude \rightarrow Employability	0.491	0	[0.370, 0.615]	
Indirect effect				
Career planning →Learning attitude	0.242	0	[0.173, 0.336]	
→Employability				
Total Effect	•			
Career planning \rightarrow Employability	0.607	0	[0.512, 0.688]	

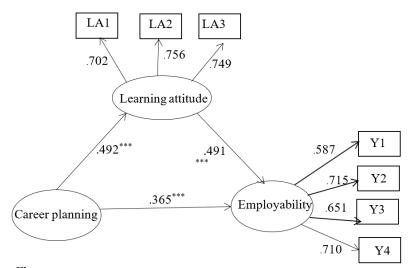


Figure 2. SEM path analysis.

Note: The data used in the study comes from the research itself.

5. Discussion and Recommendations

5.1. Discussion

The research findings indicate that career planning among university students in Hebei Province, China, has a significant positive impact on employability. These results are consistent with previous studies [6] [18]. Developing rational career plans among university students in Hebei Province enhances their employability. Specifically, when students formulate career plans tailored to their individual circumstances, it assists them in gaining a better understanding of their career trajectory. Particularly in the current labor market scenario influenced by evolving demands, this encourages students to devise effective strategies to advance their career planning goals, thereby improving their employability [22].

Moreover, career planning among university students in Hebei Province, China, has a significant positive impact on their learning attitudes. This finding aligns with previous research by Whiston, et al. [23] and Hidayat and Alsa [24]. It indicates that students who excel in career planning also demonstrate better learning attitudes. Therefore, providing career guidance to students in Hebei Province universities to help them devise rational career plans encourages them to reflect on the skills and competencies they will need upon graduation. This, in turn, assists students in clarifying their future development direction, fostering a positive learning environment, and promoting a more proactive learning attitude [43].

The study finds that the learning attitudes of university students in Hebei Province, China, have a significant positive impact on their employability. This current research aligns with previous studies [5], indicating that a positive learning attitude among university students benefits their employability [7]. Specifically, university students who demonstrate a positive learning attitude during their educational tenure tend to diligently fulfill various learning tasks during their university years, acquire more knowledge and skills, and thereby enhance their employability [11].

Furthermore, the results of this study demonstrate that the learning attitudes of university students in Hebei Province, China, mediate the impact of career planning on employability. These findings are consistent with previous research [5]. This implies that Hebei Province universities, by providing career guidance to students and assisting them in formulating rational career plans, enable students to better understand their chosen fields of study, clarify their learning objectives, optimize their learning attitudes, enhance their learning motivation, and subsequently improve their employability [10]. This underscores the importance for Hebei Province universities to not only focus on students' career planning but also to emphasize their learning attitudes during their academic tenure, as students' learning attitudes indirectly influence employability through career planning.

5.2. Recommendations

Based on the research findings and conclusions, the following recommendations are proposed:

Firstly, it is crucial to strengthen career planning education for university students in Hebei Province, China. Integrating career planning education into universal courses and striving for full coverage and early intervention are essential goals. By providing career planning education to all students, it helps them gain a proper understanding of themselves, make scientifically rational career choices, plan their career paths in advance, and acquire the necessary skills and knowledge for future employment. This will assist students in forming correct employment concepts and ultimately enhance their employability. Additionally, universities in Hebei Province should adopt tailored approaches to provide precise career planning education guidance based on students' diverse academic backgrounds, laying a solid foundation for enhancing students' employability.

Secondly, efforts should be made to cultivate positive learning attitudes among university students in Hebei Province, China. Schools should create a conducive learning atmosphere by fostering a positive school culture, academic atmosphere, and class environment. Through immersion in such an environment, students can be influenced positively and inspired to enhance their employability. Teachers should adopt appropriate teaching methods based on practical needs and continuously encourage students to enhance their recognition of the subjects they study. This, in turn, will further correct their learning attitudes, solidify their professional knowledge, and lay a solid foundation for improving their employability. On a personal level, students should devise reasonable plans, foster positive expectancy effects, cultivate good learning attitudes, develop learning interests, and master the necessary professional knowledge and skills, thus contributing to the enhancement of their own employability.

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References

- [1] Central Government of the People's Republic of China, "How to secure employment for tens of millions of graduates," May 19, 2022. [Online]. Available: https://www.gov.cn/xinwen/2022-05/19/content_5691110.htm
- [2] H. Guo and W. Xie, "Employability of university students abroad: Connotation, model, and enlightenment," Higher Education in Science, no. 6, pp. 95–106, 2022. [Online]. Available: https://kns.cnki.net/kcms2/article/abstract?v=PWGcoTQHHEs8e3PDzage=CHS
- [3] C. Zhang, "Research on the paths to enhance college students' employability from the perspective of career planning," Scientific Consultation (Education Research), no. 4, pp. 29–30, 2021.
- [4] W. E. Donald, A. M. Jackson, and Y. Baruch, "Students' perceptions of education and employability: Facilitating career transition from higher education into the labor market," Career Development International, vol. 23, no. 5, pp. 513–540, 2018. https://doi.org/10.1108/CDI-09-2017-0171
- [5]L. Dacre Pool and P. Sewell, "The key to employability: Developing a practical model of graduate employability,"
Education + Training, vol. 49, no. 4, pp. 277–289, 2007. https://doi.org/10.1108/00400910710754435
- [6] A. Chughtai, "Servant leadership and perceived employability: Proactive career behaviours as mediators," Leadership & Organization Development Journal, vol. 40, no. 2, pp. 213–229, 2019. https://doi.org/10.1108/LODJ-07-2018-0281
- [7] S. S. Fadhil, R. Ismail, and A. Alnoor, "The influence of soft skills on employability: A case study on technology industry sector in Malaysia," Interdisciplinary Journal of Information, Knowledge, and Management, vol. 16, pp. 255-280, 2021. https://doi.org/10.28945/4807
- [8] L. D. Pool, P. Qualter, and P. J. Sewell, "Exploring the factor structure of the CareerEDGE employability development profile," Education + Training, vol. 56, no. 4, pp. 303-313, 2014. https://doi.org/10.1108/ET-01-2013-0009
- [9] C. J. Fraser, G. Duignan, D. Stewart, and A. Rodrigues, "Overt and covert: Strategies for building employability skills of vocational education graduates," Journal of Teaching and Learning for Graduate Employability, vol. 10, no. 1, pp. 157–172, 2019. https://doi.org/10.21153/jtlge2019vol10no1art786
- [10] U. C. Okolie et al., "Career training with mentoring programs in higher education: Facilitating career development and employability of graduates," Education + Training, vol. 62, no. 3, pp. 214–234, 2020. https://doi.org/10.1108/ET-04-2019-0071
- [11] T. Y. Fan and B. Y. Pan, "A catalyst for enhancing the employability of students—Taking the implementation of mentorship in a university of technology as an example," Commerce & Management Quarterly, vol. 23, no. 3, pp. 251–286, 2022. [Online]. Available: https://www.proquest.com/openview/276169168f2c949bfbaf0781d5c74474/1?pqorigsite=gscholar&cbl=2043105
- [12] Y. F. Fu, Y. X. Chen, Z. Y. Yang, and R. L. Qi, "The impact of artificial intelligence on the employment of graduates in Hebei Province and countermeasures," Journal of Shijiazhuang University, no. 1, pp. 157–160, 2023. https://doi.org/10.13573/j.cnki.sjzxyxb.2023.01.013
- H. Tan et al., "Double reduction' policy and the employment status of teacher education students in local colleges: Based on an analysis of employment data from five colleges in Hebei Province," China Employment, no. 11, pp. 7–9, 2022. https://doi.org/10.16622/j.cnki.11-3709/d.2022.11.009
- [14] M. Healy, S. Hammer, and P. McIlveen, "Mapping graduate employability and career development in higher education research: A citation network analysis," Studies in Higher Education, vol. 47, no. 4, pp. 799-811, 2022. https://doi.org/10.1080/03075079.2020.1804851
- [15] S. Gould, "Characteristics of career planners in upwardly mobile occupations," Academy of Management Journal, vol. 22, no. 3, pp. 539–550, 1979. https://doi.org/10.5465/255743
- [16] S. J. Wayne, R. C. Liden, M. L. Kraimer, and I. K. Graf, "The role of human capital, motivation and supervisor sponsorship in predicting career success," Journal of Organizational Behavior, vol. 20, no. 5, pp. 577–595, 1999. https://doi.org/10.1002/(SICI)1099-1379(199909)20:5577::AID-JOB9583.0.CO;2-0
- [17] E. A. Locke and G. P. Latham, "Building a practically useful theory of goal setting and task motivation: A 35-year odyssey," American Psychologist, vol. 57, no. 9, pp. 705–717, 2002. https://doi.org/10.1037/0003-066X.57.9.705
- [18] A.J. Clements and C. Kamau, "Understanding students' motivation towards proactive career behaviours through goal-setting theory and the job demands-resources model," Studies in Higher Education, vol. 43, no. 12, pp. 2279– 2293, 2018. https://doi.org/10.1080/03075079.2017.1326022
- [19] Y. Ma et al., "Linking undergraduates' future work self and employability: A moderated mediation model," BMC Psychology, vol. 12, no. 1, Art. no. 160, 2024. https://doi.org/10.1186/s40359-024-01530-1

1309

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 1300-1311, 2024 DOI: 10.55214/25768484.v8i6.2243

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- [20] J. Shury, Planning for success: Graduates' career planning and its effect on graduate outcomes. London: Department for Education, 2017.
- [21] S. Seibert, M. Kraimer, B. Holtom, and A. Pierotti, "Even the best laid plans sometimes go askew: Career selfmanagement processes, career shocks, and the decision to pursue graduate education," Journal of Applied Psychology, vol. 98, no. 1, pp. 169–182, 2013. https://doi.org/10.1037/a0030882
- [22] D. Jackson and M. Tomlinson, "Investigating the relationship between career planning, proactivity and employability perceptions among higher education students in uncertain labour market conditions," Higher Education, vol. 80, no. 3, pp. 435–455, 2020. https://doi.org/10.1007/s10734-019-00490-5
- [23] S. C. Whiston, Y. Li, N. G. Mitts, and L. Wright, "Effectiveness of career choice interventions: A meta-analytic replication and extension," Journal of Vocational Behavior, vol. 100, pp. 175–184, 2017. https://doi.org/10.1016/j.jvb.2017.03.010
- [24] M. Hidayat and A. Alsa, "The effect of 'PLANS' training towards career maturity of senior high school students," Journal of Educational, Health and Community Psychology, vol. 7, no. 2, pp. 160–178, 2018. https://doi.org/10.12928/jehcp.v7i2.9681
- [25] R. Sepahvand, Z. Solgi, and F. Akbaripasham, "The impact of orientation and planning of varied career orientation on employability of graduates in higher education," Quarterly Journal of Research and Planning in Higher Education, vol. 24, no. 1, pp. 71–90, 2023.
- [26] L. Andre et al., "Motivated by future and challenges: A cross-cultural study on adolescents' investment in learning and career planning," Journal of Vocational Behavior, vol. 110, pp. 168–185, 2019. https://doi.org/10.1016/j.jvb.2018.11.015
- [27] D. Goetsch et al., "Students' attitudes, beliefs and plans regarding career planning and post-college life," Department of Sociology/Anthropology, St. Olaf College, Unpublished manuscript, 2017. [Online]. Available: https://wp.stolaf.edu/sociology/files/2017/05/Goetsch-et-al-Students-Attitudes-Beliefs-and-Plans-Regarding-Career-Planning-and-Post-College-Life.pdf
- [28] J. C. Xiao, "A study on the impact of family socioeconomic status, self-concept, and academic performance on the employment of university graduates—A case study of the Greater Taipei area," Contemporary Educational Research Quarterly, vol. 17, no. 3, pp. 1–40, 2009. https://doi.org/10.6151/CERQ.2009.1703.01
- [29] M. C. Werner, The Development of Generic Competencies in Australia and New Zealand. Leabrook, South Australia: National Centre for Vocational Education Research, 1994.
- [30] R. Dalrymple, A. Macrae, M. Pal, and S. Shipman, Employability: A Review of the Literature 2016–2021, Report no. 116, AdvanceHE, York, UK, 2021. [Online]. Available: https://www.advance-he.ac.uk/knowledge-hub/employabilityreview-literature-2016-2021
- [31] M. Healy, "Careers and employability learning: Pedagogical principles for higher education," Studies in Higher Education, vol. 48, no. 8, pp. 1303–1314, 2023. https://doi.org/10.1080/03075079.2023.2196997
- [32] A. Rothwell, S. Jewell, and M. Hardie, "Self-perceived employability: Investigating the responses of post-graduate students," Journal of Vocational Behavior, vol. 75, no. 2, pp. 152–161, 2009. https://doi.org/10.1016/j.jvb.2009.05.002
- [33] P. Wang et al., "The development of career planning scale for junior high school students based on cognitive information processing theory," Frontiers in Psychology, vol. 14, Art. no. 1106624, 2023. https://doi.org/10.3389/fpsyg.2023.1106624
- [34] H. Z. Li, Y. M. Duan, J. Du, and N. Zhao, "Study on the coupling and coordination of industrial structure, employment structure, and higher education in Hebei Province," Journal of Xingtai Vocational and Technical College, no. 2, pp. 75–84, 2022. [Online]. Available: https://doi.org/CNKI:SUN:XTJY.0.2022-02-023
- [35] Y. Y. Wang, S. J. Wang, L. S. Wang, and B. Chen, "Reflections and countermeasures on employment of college students in Hebei Province under the new situation," Rural Economy and Technology, no. 2, pp. 284–285, 2021. [Online]. Available: http://www.cqvip.com/qk/84382x/201003/34943302.html
- [36]J. Koen, U. C. Klehe, and A. E. van Vianen, "Employability among the long-term unemployed: A futile quest or worth
the effort?," Journal of Vocational Behavior, vol. 82, no. 1, pp. 37–48, 2013. https://doi.org/10.1016/j.jvb.2012.11.001
- [37] M. L. Wu, Structural Equation Modeling: Operation and Application of AMOS (2nd ed.). Chongqing: Chongqing University Press, 2010.
- [38] S. W. Xu, Q. L. Yang, and H. W. Su, "A study on the correlation between vocational self-concept and learning attitude among students in higher vocational catering management—A case study of the Greater Taipei area," Sports, Leisure, Hospitality and Tourism Studies, vol. 5, no. 3, pp. 77–103, 2010. [Online]. Available: https://www.airitilibrary.com/Publication/alDetailedMesh?docid=19911629-201009-201010070037-201010070037-77-103
- [39] L. Cheng and K. Dong, "Study on the employability of impoverished college students—A case study of local undergraduate colleges," Journal of Xi'an Jiaotong University (Social Science Edition), no. 3, pp. 95–99, 2016. [Online]. Available: http://www.cqvip.com/qk/82119x/201603/669017879.html
- [40] J. F. Hair, R. E. Anderson, R. L. Tatham, and W. C. Black, Multivariate Data Analysis (5th ed.). Upper Saddle River, NJ: Prentice-Hall International, 1998.
- [41] R. E. Schumacker and R. G. Lomax, A Beginner's Guide to Structural Equation Modeling. New York, NY: Psychology Press, 2004.

Edelweiss Applied Science and Technology ISSN: 2576-8484 Vol. 8, No. 6: 1300-1311, 2024 DOI: 10.55214/25768484.v8i6.2243 © 2024 by the authors; licensee Learning Gate

- [42] D. P. MacKinnon, C. M.Lockwood, and J.Williams, "Confidence limits for the indirect effect: Distribution of the product and resampling methods," Multivariate behavioral research, vol. 39, no.1, pp. 99-128, 2004,https://doi.org/10.1207/s15327906mbr3901_4
- K. Monks, E. Conway, and M. N. Dhuigneain, "Integrating personal development and career planning: The outcomes for first year undergraduate learning," Active Learning in Higher Education, vol. 7, no. 1, pp. 73–86, 2006. https://doi.org/10.1177/1469787406063216