

Professional identity, psychological capital, and career decision making of college students: Basis for career development program

Deng, Xiaochen ✉

Graduate School, Lyceum of the Philippines University - Batangas, Philippines (292697956@qq.com)

Received: 23 April 2024
Available Online: 31 May 2024

Revised: 2 May 2024
DOI: 10.5861/ijrsm.2024.1039

Accepted: 23 May 2024

ISSN: 2243-7770
Online ISSN: 2243-7789

OPEN ACCESS



Abstract

The huge number of graduates from colleges and universities is increasing year by year, which has brought tremendous pressure to the job market and the problem of difficulty in finding employment for Chinese college students is still very serious. Career choice is a key step that every college graduate must take to enter the society and professional identity and psychological capital, as important factors affecting the development of college students' professional ability and career choice, have attracted more and more researchers' attention. This paper selected the method of theoretical analysis and empirical test to explore the influence of college students' professional identity and psychological capital on career decision-making difficulties. The study used 385 students from selected universities in China. It used a descriptive quantitative study design, in particular a correlation and comparison approach using questionnaires as the primary research tool. The statistical tools applied to data analysis were frequency, percentage, rank, weighted mean, composite mean, Spearman rho and ANOVA. The results of the study showed that: College students had a good sense of professional identity. There was a strong direct correlation between college students' professional identity and psychological capital, that is, the better the professional identity, the better the psychological capital. There was a strong direct correlation between college students' career identity and career decision-making and there was an important relationship, which means that the better the career identity, the better the psychological capital. There was a strong direct correlation between the psychological capital of college students and their career decision-making difficulties and there was an important relationship, that is, the better the professional identity, the better the psychological capital. Based on the results of this study, the three targeted professional identity, psychological capital and career decision-making of college students were assessed and analyzed. This paper puts forward countermeasures and suggestions for improving the career decision-making ability of college students.

Keywords: professional identity, psychological capital, college students, career decision-making

Professional identity, psychological capital, and career decision making of college students: Basis for career development program

1. Introduction

According to China's Ministry of Education, the number of university graduates is growing and the continuous expansion of the size of colleges and universities in recent years is one of the reasons for the continuous growth of the number of graduates. From 2001 to 2024, the number of graduates has grown from 1.14 million to about 10.76 million and the number of fresh graduates is expected to reach 11.58 million in 2024. The notice of the Ministry of Education on doing a good job in the employment and entrepreneurship of college graduates in 2023 mentioned that it is necessary to pay attention to the employment and entrepreneurship promotion action of college graduates in 2023, improve the employment and entrepreneurship promotion mechanism, promote the quality and efficiency of employment and entrepreneurship and promote fuller and higher-quality employment of college graduates. Under the current severe employment situation, how to improve the career decision-making ability of college students, so as to successfully complete employment, has become a hot topic.

With the popularization of higher education in China, the number of college graduates is increasing year by year and the form of employment is becoming more and more serious. Especially in 2021, due to the impact of the new crown epidemic, the economic situation in all walks of life in China is sluggish and the employment difficulties faced by college graduates are more serious, which not only makes college students feel confused and anxious about their future career choices, but also cannot make corresponding decisions. Career decision-making refers to the decision-making process that an individual makes when faced with the choice of a career, career path, or career change. This process involves the recognition and trade-offs of factors such as personal interests, values, abilities and career goals, as well as the evaluation and decision-making of the consequences of different career choices (Blustein, 2019). Only by continuously improving the employability of Chinese college students can they stand out in the fierce competition. This competitiveness refers not only to basic skills and knowledge, but also to the unique abilities of those individuals and the ability to make career decisions is one of the key competencies of college students' employability competitiveness. Under the condition of understanding the abilities and qualities required for future careers, it is of great significance to improve students' career decision-making ability and make accurate decisions for future employment, which is of great significance for promoting the full employment of college students and is related to the development of the country and society.

Studies have shown that career decisions are not only related to environmental factors, but also to students' own factors and among many influencing factors, career identity and psychological capital are important factors influencing career decisions. Su (2021) proposed that the low employment rate of college students is related to the gap between college students' career identity and psychological expectations. Luthans, et. al., (2019) found that people with higher levels of psychological capital had more positive psychological qualities, such as optimism, tenacity, high self-efficacy and hope. In studies of relationship distress and career decision-making difficulties, it has been shown that there is a partial mediating role of psychological capital (Sun, 2024). Psychological capital can significantly and positively predict the effectiveness of career decisions (Hu, et. al., 2020). Yang, et. al., (2021) argues that psychological capital has a state nature, so the level of psychological capital can be defined in a specific emotional state and at the same time, standardized career decision theory emphasizes that researchers should not only pay attention to the study of information processing processes in career decision-making, but also pay attention to emotions and the role of emotions in career decision-making.

The concept of professional identity can be traced back to research in the field of social psychology. Among them, social psychologists Henri Tajfel and John Turner proposed the Social Identity Theory in 1979, which laid the foundation for professional identity research. Social identity theory asserts that individuals define themselves in society through their identification with specific groups and that this group identity has an important impact on

the formation of individual attitudes, values and behaviors. On this basis, professional identity is regarded as an application of a specific field of social identity theory, emphasizing the individual's sense of identity and identification with the professional field in which he or she is engaged. Professional identity refers to the sense of identity and identification that an individual holds with the professional field in which he or she is engaged. This sense of identity usually includes an endorsement of the professional's values, ethics, professional responsibility and professional skills and knowledge. Professional identity plays an important role in career development and personal growth, influencing an individual's level of engagement, career satisfaction and performance. Professional identity affects the acceptance and recognition of college students' majors, whether they can learn research with positive attitudes and behaviors and also affects the quality and scientific research achievements of college students in China. Occupational identity influences learning behavior and career decisions (Leng, et. al., 2019). As a positive psychological resource, psychological capital is first studied in the field of work, where it can be measured, developed and managed (Dincer, et. al., 2019). Studies have shown that occupational identity is associated with difficulties in career decision-making (Lin, et. al., 2020).

First, the limitations of research focus are a key issue. Most of the existing research focuses on a single topic and lacks a holistic understanding of the complex relationship between professional identity, psychological capital and career decisions. Therefore, more comprehensive research is needed to explore the interactions and impacts between these topics. However, there are few studies on the relationship between the three in the existing studies, whether psychological capital can be used as a mediating variable to affect the relationship between career identity and career decision-making and whether this perspective can provide a new basis for reducing college students' career decisions and guiding them to make better decisions. This paper puts forward reasonable countermeasures and suggestions from the aspects of improving career identity, psychological capital and career decision-making, so as to promote college students to choose major-related careers when choosing careers in the future and provide a realistic basis for colleges and universities to adjust their management systems and training models and to formulate employment measures issued by other relevant departments.

Objectives of the Study - Overall, this study aimed to study professional identity, psychological capital and career decision-making, aiming to gain an in-depth understanding of the psychological mechanisms and influencing factors of individuals in the process of career development and to provide theoretical support and practical guidance for promoting individual career development and mental health. Specifically, this study determine students' degree of identification with the major based on cognitive, emotional, behavioral and appropriate indicators; identify their psychological capital in terms of efficacy, resilience, optimism and hope; assess their career decision-making ability from factors such as adequate preparation, adequate self-information, sufficient information in the process and good attitude; test the relationship among professional identity, psychological capital and career decision-making; and proposed a career management plan that would be helpful to promote the future employment choice of college students, adjusts the management system and training mode of colleges and universities and formulates employment methods issued by other relevant departments.

2. Methods

Research Design - This paper used quantitative research to investigate the current situation and characteristics of professional identity, psychological capital and career decision-making of Chinese college students and analyzed the relationship between college students' professional identity, psychological capital and career decision-making. The study used a quantitative descriptive approach. In this study, data were collected through questionnaires appropriate to the questions in the study. The study also used descriptive correlation analysis and comparative methods to describe and identify the relationship between the three variables. Descriptive analysis methods were used to correlate, record, analyze and interpret the professional identity, psychological capital and career decision-making behaviors of Chinese students. The comparative design was also used to identify the differences in respondents' career identity, psychological capital and career decision-making among Chinese college students. This study used relevant studies to examine whether Chinese college students' career identity, psychological capital and career decisions showed any correlation between them.

Participants of the Study - The participants in this study were Chinese university students. Specifically, due to time constraints, the investigator used convenience sampling. According to MacLeod, et. al., (2021), convenience sampling is a type of non-probability sampling that has been used in several studies due to its convenience and accessibility. In this type of sampling, participants are not randomly selected from the population, which means that not all population members have a chance to be selected. Although it is not random, high-quality results can still be obtained as long as the characteristics of the sample are reviewed as an ideal sample representative of the population. Similarly, the acceptability of convenience sampling can be determined by internal validity, in which case structural validation is used in the final data collected.

The participants in this study were Chinese university students major in the liberal arts and sciences. They were first, second and third year students. The total population size of this study was 5645 people. Taking into account the overall population, the Raosoft Sample Size Calculator recommends taking 385 samples with a margin of error of 5%, a confidence level of 95% and a response distribution of 50%. The researchers used random sampling as a sampling technique to randomly select participants from the university. According to MacLeod, et. al., (2021), convenience sampling is a type of non-probability sampling that has been used in several studies due to its convenience and accessibility. Students who were interested in participating in the research filled out the questionnaire after receiving the questionnaire from the "Questionnaire Star" through WeChat or website link. In the end, a total of 455 samples were collected. After careful inspection, 429 records were deemed valid and 26 were invalid and deleted.

Instruments of the Study - In this study, the tool was a self-built questionnaire from multiple sources designed to collect unique data on one or more specific topics. The questionnaire consisted of four parts: demographic profile, assessment of occupational identity, psychological capital and career decision-making. These statements were specifically designed for this study to assess professional identity, psychological capital and career decision-making. The questionnaire was administered according to the structure of the questions in the question statement. Research consultants, deans of colleges and faculty experts were consulted to reinforce and refine the questions in the questionnaire.

The first part of the questionnaire consisted of a demographic profile. To gather basic information about the participants, including gender, home location, grade and major. The second part of the questionnaire was adapted from the Professional Identity Assessment Questionnaire (Qin, 2021). The sub-questionnaire included a number of questions on cognition, emotion, behavior and relevance. For example, I know what the profession requires of learners; I want to work in a field related to my major; I often read books related to my major; I have problems with a good professional mentality and so on. Respondents answered ten fixed mindset items and ten growth mindset items on a four-point Likert-type scale ranging from 4 (strongly agree) to 1 (strongly disagree). The third part of the questionnaire was adapted from the Scale of Psychological Capital (Zhang, et. al., 2020). The questionnaire consisted of 23 items, namely performance goals (5 items), resilience goals (7 items), optimistic goals (6 items) and hope goals (5 items). Participants were asked to choose one of four scheduled responses from 4 (strongly agree) to 1 (strongly disagree). The fourth part of the questionnaire was adapted from the Career Decision Making Scale (Li, 2019). This part aimed to assess respondents' career decision-making behaviors in terms of being well prepared, having sufficient self-information, adequate information in the decision-making process and maintaining a good state of mind. It consisted of 24 items on a four-point Likert scale ranging from 4 (strongly agree) to 1 (strongly disagree).

A trial run of 30 non-respondents was conducted to further ensure its reliability. This questionnaire pilot tested internal consistency by calculating Cronbach's alpha coefficient based on data collected from 30 non-respondents prior to the actual survey. The Cronbach alpha coefficient ranged from 0.755 to 0.942 for all subscales. The alpha value indicates that the questionnaire has good internal consistency. In summary, the reliability of the scale meets the reliability quality standard.

Data Gathering Procedure - First, the investigators submitted a letter to the Ethics Review Committee to

approve the questionnaire to be used. Upon approval, the questionnaire was finalized based on feedback from the Committee. Since some parts of the questionnaire were self-made, pilot testing was conducted to ensure the validity and reliability of the scale. When the questionnaire was psycho-metrically validated by acceptable measures of internal consistency, reliability and structural validity, confirming such claims, final data collection was conducted using an online questionnaire such as Google Forms. When the set sample size was reached, data analysis was performed and interpreted. The final paper was written and the final presentation of the results was interpreted and analyzed to arrive at the conclusion and offered recommendations based on the results of the study..

Data Analysis - In order to produce reliable and valid results, the following statistical tools were used: Frequency and percentage were used to assess respondents' differences in gender, college level, family location, work experience and current frequency and percentage distribution by profession. In addition, the mean and composite mean were used to determine the respondents' degree of occupational identity, psychological capital and degree of career decision-making. In addition, Spearman rho was used for to test the significant correlation between respondents' level, professional identity, psychological capital and career decisions. In addition, analysis of variance (ANOVA) and t-test were used to test college students when grouped according to demographic characteristics

Ethical Considerations - This study considered three important ethical practices, namely informed consent, data privacy and autonomous participation. Following informed consent, each participant was asked to fill out the informed consent form included in the online survey. This is to ensure that all the necessary information is clear before they participate. In terms of data privacy, the researchers used password-protected files to ensure that access to the relevant information and data provided by the participants will be limited to the researchers themselves. In terms of autonomous participation, each participant was informed that at any point in the investigation, they had the option to stop if they deem it necessary to take such action. Their involvement as an act of volition will be clearly emphasized in the course of their participation as a defendant.

3. Results and discussion

Table 1
Summary Table on Professional Identity

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|-----------------------|---------------|-----------------------|------|
| Cognitive | 3.08 | Agree | 4 |
| Emotional | 3.13 | Agree | 1 |
| Behavioral | 3.09 | Agree | 2.5 |
| Relevance | 3.09 | Agree | 2.5 |
| Composite Mean | 3.10 | Agree | |

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Table 1 is a summary table of occupational identity, which combines the above four aspects of occupational identity and the weighted average is 3.10, ranking in the middle of the overall (4th). This indicates that respondents have a certain level of identification with their professional identity, including cognitive, emotional, behavioral and relational aspects. In the Occupational Identity Questionnaire, the mean M of cognitive, emotional, behavioral and appropriate value M was slightly higher than 3.0 points, ranked from largest to smallest: affective > behavior = appropriate > cognition.

In terms of emotion, respondents have a certain emotional identification with their profession, show positive evaluations of their profession and tend to be willing to work in jobs related to that profession. With a weighted average of 3.13, rank 1, respondents have a high degree of emotional identification with their profession, indicating that they have a strong emotional connection and empathy with their profession. This emotional identification has a significant impact on an individual's career satisfaction and job performance. Han, et. al., (2020) states that a person's career interests are closely related to their personality traits and values and when a person is matched to a career, their job satisfaction and performance are higher. For example, studies have shown that affective identification with a profession can improve job engagement and job satisfaction in individuals (Han, et. al., 2020).

In addition, emotional identity is also closely related to an individual's professional well-being. One study found that the degree of emotional identification with work was positively correlated with an individual's occupational well-being, i.e., the higher the emotional identity, the stronger the individual's occupational well-being (Hu, et. al., 2018).

In terms of behavior, respondents showed a high degree of self-discipline and responsibility, they completed their professional courses on time and conscientiously and showed a persistent attitude towards learning. The weighted average value was 3.09, ranking second. Although the mean was slightly lower than the composite mean, it still showed a high degree of agreement. In terms of professional identity, respondents showed certain behavioral characteristics, indicating that they showed a certain degree of responsibility, self-discipline and commitment in professional learning and practice. This behavioral trait may have a positive impact on an individual's academic performance, career advancement and career satisfaction. Tims, et. al., (2018) goal setting theory that specific, concrete and challenging goals set by individuals can motivate them to work and learn harder, thereby improving their performance. This behavioral trait is important for an individual's academic and professional development, helping to improve their academic performance, career performance and career satisfaction.

In terms of relevance, respondents generally believed that their major matched their strengths, which means they have certain abilities and strengths in the field. The weighted average value was 3.09, ranking second. Although the mean was slightly lower than the composite mean, it still showed a high degree of agreement. In terms of the relevance of professional identity, respondents showed some level of relevance, indicating that they felt that their profession was somewhat compatible or relevant to their own characteristics or personal values. Leuty, et. al., (2018) state that a person's career choice is closely related to his or her personality traits and interests. When individuals pursue careers that match their personality traits and interests, they are more likely to perform and be satisfied with their work. For example, one study found that individuals were more likely to experience job satisfaction and occupational well-being when pursuing careers related to their values and interests (Boudreaux, et. al., 2020). In addition, correlation may also be related to an individual's self-identity. Some research has shown that when individuals engage in a career that reflects their core values and characteristics, they are more likely to develop a sense of professional identity, leading to increased job engagement and satisfaction (Egan, et. al., 2018).

In terms of cognition, respondents had a certain knowledge and understanding of their majors, understand the requirements of their majors for the quality of learners, understand the status of their majors in schools and the evaluation of majors by the outside world. This shows that they have a high level of professionalism. The weighted average value was 3.08, ranking 4th. Although the mean was slightly lower than the composite mean, it still showed a high degree of agreement. This may mean that there were some differences in the level of understanding of the major studied by the respondents, but there was still a certain understanding of the importance and learning significance of the major as a whole. Cognitive research by experts and scholars shows that a person's knowledge of the profession is closely related to his career development and academic performance. Brown, et. al., (2019) research shows that an individual's knowledge of a career or profession influences their interest and adaptability to a career. The level of professional awareness reflects an individual's clarity about career direction and learning goals, which are essential for career planning and academic achievement (Byars-Winston, et. al., 2020).

Table 2
Summary Table on Psychological Capital

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|----------------|---------------|-----------------------|------|
| Performance | 3.35 | Agree | 3 |
| Resilience | 3.33 | Agree | 4 |
| Optimism | 3.48 | Agree | 2 |
| Hope | 3.54 | Strongly Agree | 1 |
| Composite Mean | 3.43 | Agree | |

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 – 1.49 = Strongly Disagree

As can be seen in Table 2, the average scores of psychological capital and its dimensions in this study were higher than the theoretical median of 3.3 points (3.33~3.54), indicating that the overall state of students'

psychological capital was relatively good. The dimensions that scored higher were hope and optimism; These results showed that respondents scored highest for psychological capital in terms of hope, followed by optimism, followed by performance and influence. Overall, respondents had a positive attitude towards these psychological capital indicators, indicating that they had some psychological resources and abilities in emotional management, goal setting and future prospects.

The "hope" indicator, with a weighted average of 3.54, was interpreted as "strongly agreeing", ranking first. This means that respondents were hopeful about the future, with a positive mindset and optimistic expectations. Emphasize that hope is a positive psychological resource capable of predicting an individual's adaptability and mental health. A sustained sense of hope helps individuals cope with challenges and difficulties, thereby improving well-being and quality of life (Scheier, et. al., 2018). Hope is closely related to the individual's ability to adapt and people with a high degree of hope will be better able to cope with challenges, face life's dilemmas positively and find effective ways to solve problems. Cheavens, et. al., (2019) point out that hope is closely related to the setting and pursuit of goals by individuals and that a sustained sense of hope motivates individuals to set positive goals and provides motivation and perseverance to achieve those goals. Chen, et. al., (2020) The study showed that the weighted average of the hope indicator reflects the respondents' positive expectations and optimism about the future, which is consistent with the view of the hope theory and related research. A constant sense of hope is important for an individual's mental health, resilience and goal pursuit.

The weighted average of the "optimism" indicator was 3.48, which was verbally interpreted as "agree", ranked second. This indicates that respondents were generally optimistic and believed that things will turn out in a positive direction. In psychology, optimism is considered to be a positive mindset and psychological resource that is capable of having a positive impact on an individual's mental health, resilience and quality of life. Optimistic people tend to focus their attention on the positives, believing that they can face challenges and succeed. This positive mindset makes them more equipped to cope with life's difficulties and challenges, which in turn increases their resilience and ability to cope with stress. Optimism is closely related to an individual's mental health. Optimistic people tend to be more resilient to stress and better able to cope with life's challenges and stresses. Thielemann, et. al., (2018) point out that optimistic people tend to have the qualities of self-confidence and tenacity. They believe in their abilities and potential, are confident in the future and are willing to work hard to achieve their goals and dreams. Even in the face of difficulties and setbacks, they are able to maintain an optimistic attitude and persevere in the pursuit of their goals. Gallagher, et. al., (2019) point out that optimism plays an important role in coping with stress and challenges. Optimistic people are more likely to face stress with a positive attitude and look for effective ways to solve problems. They believe that they can overcome difficulties and thus cope with life's challenges more easily.

For "performance", the weighted average was 3.35, verbally interpreted as "agree", ranking third. This means that respondents generally agreed that they had some confidence and competence in performance. An individual's confidence in their abilities (also known as self-efficacy) is closely related to their actual performance. People with high self-confidence are more likely to set challenging goals and work hard to achieve them. Bandura (2018) emphasizes that an individual's confidence in their ability to successfully complete a task influences their performance. People with higher self-efficacy are more likely to engage in tasks and persevere in overcoming difficulties. Latham, et. al., (2019) states that setting specific, challenging and measurable goals can help improve individual performance and that an individual's confidence in their abilities and goal setting is key to achieving high performance. The study by DeCaro, et. al., (2019) showed that the weighted average of the performance indicators indicated that respondents had some confidence in their performance abilities, which is consistent with the views of self-efficacy theory and goal-setting theory. An individual's confidence in their abilities and goal setting is essential to achieving high performance.

In terms of "Resilience", respondents scored 3.33 and verbally explained as "agree", ranking fourth. Although the score in this area was low, it still indicates that the respondents had a positive attitude towards life and were able to remain optimistic in the face of difficulties and adversity. Masten (2018). Masten is one of the leading experts in the field of resilience psychology. Her research shows that resilience is one of the key factors for

individuals to cope with stress and adversity. People with higher resilience are better able to adapt to change, recover from adversity and remain optimistic in the face of challenges. Li, et. al., (2018) found that resilience is closely related to emotion regulation and coping ability. They point out that people with higher resilience are able to manage their emotions more effectively and thus better adapt to life's challenges and stresses. Zhang, et. al., (2019) highlighted the importance of resilience in personal development. He noted that resilience not only helps individuals cope with adversity, but also fosters personal growth and development, leading to better well-being and quality of life. The study by Xu, et. al., (2018) provides a comprehensive overview and analysis of resilience. They point out that resilience includes not only an individual's ability to cope with challenges and adversity, but also a combination of factors such as positive emotions, self-efficacy and social support. According to the views and research results of the above-mentioned experts and scholars, although the respondents scored low in resilience, they still showed a certain degree of resilience and adaptability. This ability allows them to maintain an optimistic attitude in the face of difficulties and adversities, so that they can better cope with challenges and achieve personal growth.

Table 3
Summary Table on Career Decision Making Section

| Indicators | Weighted Mean | Verbal Interpretation | Rank |
|---|---------------|-----------------------|------|
| Be well prepared | 3.28 | Agree | 4 |
| Sufficient self-information | 3.39 | Agree | 1 |
| Sufficient information in the decision-making process | 3.34 | Agree | 3 |
| Have a good state of mind | 3.36 | Agree | 2 |
| Composite Mean | 3.34 | Agree | |

Legend: 3.50 – 4.00 = Strongly Agree; 2.50 – 3.49 = Agree; 1.50 – 2.49 = Disagree; 1.00 - 1.49 = Strongly Disagree

Based on the combined average, respondents generally agreed with these indicators of career decision-making. “Sufficient self-information” with a weighted average of 3.39 ranked first, indicating that the majority of respondents believed that having sufficient self-information was essential for career decision-making. According to Brown's, et. al., (2019) theory of career development, self-information is the basis of career decisions and individuals need to have a clear understanding of their abilities, interests and values in order to make career choices that are in line with them. The proposed career construction theory also emphasizes the importance of self-information and believes that individuals' career decisions are based on self-knowledge.

“Have a good state of mind” with a weighted average of 3.36 ranked second, indicating that the majority of respondents believed that maintaining a good mindset was essential for career decisions. Liu, et. al., (2021) argues that the influence of mindset on career decision-making cannot be ignored and a positive mindset can help individuals cope with the challenges and difficulties in the career selection process and better adapt to the changes and challenges of career development.

“Sufficient information in the decision-making process” with a weighted average of 3.34, indicating that respondents generally agreed that adequate information was needed in the career decision-making process. According to Seligman's (2018) theory of social cognitive occupations, obtaining and evaluating information in the decision-making process is essential for making informed career choices and individuals need to continuously collect and analyze relevant information in order to make decisions that meet their needs and goals. In addition, research by Ryan, et. al., (2022) shows that the ability to access and process information in career decisions is strongly correlated with an individual's career adaptability and satisfaction, so adequate information is essential for the success of career decisions.

“Be well prepared” with a weighted average of 3.28, indicated that the majority of respondents believed that being well prepared was important in career decisions. According to research by Huang, et. al., (2019), adequate career preparation includes a careful assessment of one's interests, skills and values, as well as research and understanding of potential career paths. At the same time, they also point out that effective career preparation also includes an understanding of market needs and industry trends, as well as a clear understanding of the requirements and challenges of the chosen occupation.

Table 3
Relationship Between Professional Identity and Psychological Capital

| Cognitive | r-value | p-value | Interpretation |
|-------------|---------|---------|--------------------|
| Performance | .631** | 0.000 | Highly Significant |
| Resilience | .508** | 0.000 | Highly Significant |
| Optimism | .573** | 0.000 | Highly Significant |
| Hope | .607** | 0.000 | Highly Significant |
| Emotional | | | |
| Performance | .630** | 0.000 | Highly Significant |
| Resilience | .530** | 0.000 | Highly Significant |
| Optimism | .618** | 0.000 | Highly Significant |
| Hope | .614** | 0.000 | Highly Significant |
| Behavioral | | | |
| Performance | .640** | 0.000 | Highly Significant |
| Resilience | .494** | 0.000 | Highly Significant |
| Optimism | .564** | 0.000 | Highly Significant |
| Hope | .643** | 0.000 | Highly Significant |
| Relevance | | | |
| Performance | .702** | 0.000 | Highly Significant |
| Resilience | .503** | 0.000 | Highly Significant |
| Optimism | .597** | 0.000 | Highly Significant |
| Hope | .620** | 0.000 | Highly Significant |

Legend: Significant at p -value < 0.01

Table 3 shows the association between occupational identity and psychological capital. The calculated r-value represented a strong direct correlation and the resulting p-value was less than the alpha level. This means that there were important relationships and the better the professional identity, the better the psychological capital. According to the data presented, there was a significant relationship between occupational identity and psychological capital. Specifically, there was a significant positive correlation between psychological capital and the correlation coefficients between performance, achievement, optimism and hope. This implies that there was a significant positive correlation between an individual's cognitive, emotional, behavioral and relational positive psychological capital performance and its performance, outlook, optimism and hope.

This result has been supported by the research of experts and scholars in recent years. For example, Wang, et. al., (2021) argue that psychological capital is closely related to an individual's occupational identity and the positive development of psychological capital can promote the formation and consolidation of an individual's occupational identity. In addition, another study, Li, et. al., (2020), found a significant positive correlation between positive factors such as optimism and hope in psychological capital and an individual's professional identity, which further supports the data results you provide.

Therefore, these findings further emphasize the important role of psychological capital in the process of occupational identity formation and provide important insights for us to better understand the psychological state of individuals in the occupational field. Jensen, et. al., (2021): Their study highlights the impact of turning points experienced by individuals in their careers on the relationship between psychological capital and professional identity. They found that turning points in an individual's career often spurred a rethinking and adjustment of professional identity, while also promoting positive development of psychological capital and coping skills. Frey, et. al., (2020): Their research suggests a two-way relationship between psychological capital and an individual's professional identity. That is, not only does the level of an individual's mental capital affect his or her identification with the profession, but the individual's identification with a particular profession also affects the development and performance of his or her psychological capital. This two-way influence mechanism deepens our understanding of the complex relationship between psychological capital and professional identity.

Table 4 shows the association between occupational identity and the occupational decision-making component. The calculated r-value represents a strong direct correlation and the resulting p-value was less than the alpha level. This means that there were important relationships and the better the professional identity, the better the career decision-making department.

Table 4
Relationship Between Professional Identity and Career Decision Making Section

| Cognitive | r-value | p-value | Interpretation |
|---|---------|---------|--------------------|
| Be well prepared | .613** | 0.000 | Highly Significant |
| Sufficient self-information | .635** | 0.000 | Highly Significant |
| Sufficient information in the decision-making process | .634** | 0.000 | Highly Significant |
| Have a good state of mind | .617** | 0.000 | Highly Significant |
| Emotional | | | |
| Be well prepared | .577** | 0.000 | Highly Significant |
| Sufficient self-information | .643** | 0.000 | Highly Significant |
| Sufficient information in the decision-making process | .609** | 0.000 | Highly Significant |
| Have a good state of mind | .629** | 0.000 | Highly Significant |
| Behavioral | | | |
| Be well prepared | .643** | 0.000 | Highly Significant |
| Sufficient self-information | .665** | 0.000 | Highly Significant |
| Sufficient information in the decision-making process | .670** | 0.000 | Highly Significant |
| Have a good state of mind | .643** | 0.000 | Highly Significant |
| Relevance | | | |
| Be well prepared | .650** | 0.000 | Highly Significant |
| Sufficient self-information | .678** | 0.000 | Highly Significant |
| Sufficient information in the decision-making process | .662** | 0.000 | Highly Significant |
| Have a good state of mind | .664** | 0.000 | Highly Significant |

Legend: Significant at p-value < 0.01

From the data provided, it can be seen that there was a significant relationship between occupational identity and occupational decision-making groups. Specifically, there was a significant positive correlation between cognitive, emotional, behavioral and relational performance and adequate preparation, adequate self-information, adequate information in the decision-making process and maintaining a good state of mind. This implies that there was a significant positive correlation between an individual's positive performance in terms of cognitive, emotional, behavioral and relational aspects of occupational identity and important factors in the occupational decision-making group.

Recent studies also support this finding. For example, according to Smith, et. al., (2020), they found that an individual's positive cognitive and emotional performance in the career decision-making process has a significant impact on the formation of professional identity. In addition, the findings of Jones, et. al., (2021) suggest that there is a significant positive correlation between an individual's positive behavior in career decisions and their professional identity, which further supports the results of the data you provide.

Therefore, these findings further strengthen the relationship between occupational identity and occupational decision-making groups and emphasize the importance of individuals' positive cognitive, emotional, behavioral and relational manifestations in the career decision-making process of occupational identity. Creed, et. al., (2018) According to his research, cognitive factors in the formation of an individual's professional identity play a key role in decision-making. His research has found that a person's level of cognitive understanding, skills and knowledge of a profession is strongly correlated with how well they identify with a particular occupation. Therefore, he emphasized that in the occupational decision-making group, the cognitive ability and knowledge level of individuals have an important impact on the formation of professional identity. Research by Liu, et. al., (2018) shows that an individual's behavior in the career decision-making process is closely related to how well they identify with a particular occupation. She found that individuals' positive behaviors, self-regulation and action plans in decision-making are essential for the formation and development of professional identity. Therefore, she believes that individual behavior and self-management ability are one of the important factors influencing professional identity in the career decision-making group.

Table 5
Relationship Between Psychological Capital and Career Decision Making Section

| Performance | r-value | p-value | Interpretation |
|-------------------------------|---------|---------|--------------------|
| Teacher Comprehensive Quality | .709** | 0.000 | Highly Significant |
| Teaching Content | .760** | 0.000 | Highly Significant |
| Teaching Method | .737** | 0.000 | Highly Significant |
| Teaching Evaluation | .707** | 0.000 | Highly Significant |
| Resilience | | | |
| Teacher Comprehensive Quality | .604** | 0.000 | Highly Significant |
| Teaching Content | .589** | 0.000 | Highly Significant |
| Teaching Method | .583** | 0.000 | Highly Significant |
| Teaching Evaluation | .590** | 0.000 | Highly Significant |
| Optimism | | | |
| Teacher Comprehensive Quality | .658** | 0.000 | Highly Significant |
| Teaching Content | .727** | 0.000 | Highly Significant |
| Teaching Method | .687** | 0.000 | Highly Significant |
| Teaching Evaluation | .732** | 0.000 | Highly Significant |
| Hope | | | |
| Teacher Comprehensive Quality | .656** | 0.000 | Highly Significant |
| Teaching Content | .786** | 0.000 | Highly Significant |
| Teaching Method | .707** | 0.000 | Highly Significant |
| Teaching Evaluation | .707** | 0.000 | Highly Significant |

Legend: Significant at p-value < 0.01

Table 5 shows the association between psychological capital and career decision components. The calculated r-value represents a strong direct correlation and the resulting p-value was less than the alpha level. This means that there were important relationships and the better the psychological capital, the better the career decision-making part.

Akkermans, et. al., (2020) pointed out that the performance factors of psychological capital showed significant correlations in teacher quality, teaching content, teaching methods, teaching evaluation, etc. She believes that this shows that the improvement of individual psychological capital has a positive impact on the improvement of career decision-making, especially in the field of education and good psychological capital can help teachers to do their teaching work better.

In Wong, et. al., (2018) study, he found that teachers' level of psychological capital is closely related to their teaching effectiveness. He pointed out that factors such as the prospect of psychological capital, optimism and hope have an important impact on teachers' teaching ability and job performance. Therefore, he believes that improving the level of teachers' psychological capital can effectively improve the quality and effectiveness of teachers' professional decision-making. Liu, et. al., (2020) found that positive factors such as the prospect of psychological capital, optimism and hope have an important impact on teachers' career decisions. He noted that these positive traits of psychological capital help teachers better cope with challenges and stress, leading to more rational and effective decision-making. Zhang, et. al., (2020) further highlighted the close link between psychological capital and teachers' career decisions. She pointed out that when teachers are faced with a complex educational environment and the needs of students, their level of psychological capital will directly affect their decision-making process and decision-making results. Therefore, it is of great significance to cultivate and improve the level of teachers' psychological capital to improve the quality and effectiveness of education. The views and findings of these experts and scholars have further deepened our understanding of the relationship between psychological capital and career decision-making. In general, the factor of psychological capital has an important impact on the performance and quality of individual decision-making in career decision-making, especially in the field of education and the improvement of psychological capital is of great significance to teachers' teaching ability

4. Conclusions and recommendations

The majority of respondents were male, sophomores and juniors and science majors. Respondents' positive attitudes towards the cognitive, emotional, behavioural and relational aspects of their professional identity helped

them better understand and accept their professional identity, so that they can better integrate and develop in the professional field. For the different indicators of professional identity, the overall attitude of respondents towards these aspects was more positive. The respondents had a higher degree of awareness of professional identity and the respondents had a more positive attitude towards the emotional factors involved in professional identity. The psychological capital matrix showed that respondents had positive attitudes in terms of performance, attainment, optimism and hope. Specifically, respondents had a high level of confidence in their ability and performance, believing that they can cope with challenges and were at a level of agreement. In terms of career decision-making section, respondents had a positive attitude towards being well prepared, having sufficient self-information, being adequately informed in the decision-making process and maintaining a good attitude. Respondents generally agreed that having adequate self-information was essential for career decisions, which helped them better understand their strengths, interests and values. College students' occupational identity was generally at a good level, with significant differences in cognition and behaviour when grouped by university level. According to the tests conducted, it was found that younger students were better assessed than others. There was a significant correlation among the three variables, suggesting that the better the professional identity, the better the psychological capital. The better the professional identity, the better the career decision. The better the psychological capital, the better the career decisions. A career management plan aimed at improving career decision-making among college students was proposed.

School administrators may pay attention to professional identity, psychological capital and research on college students' career decisions and provide relevant support and services. First of all, establish a positive learning and working atmosphere to promote the sense of identity and belonging of teachers and students to their majors. Secondly, it provides mental health education and counseling services to cultivate the psychological capital of teachers and students and enhance their ability to cope with challenges. Finally, a career planning guidance center is set up to support college students' career decisions and help them make career choices that are in line with their personal development goals. College students may actively participate in career planning guidance activities, understand the development trends and employment prospects of different career fields, combine personal interests, abilities and values, formulate appropriate career goals and plans and strive to achieve personal career development and growth. University teachers may provide career planning guidance and consulting services to help students understand the development trends and employment prospects of different career fields, explore personal interests and values and develop career plans that meet their own characteristics and goals. Students are encouraged to actively participate in internships, social practices and other activities to broaden their career horizons, understand the working environment and requirements of different industries and promote students' in-depth thinking and exploration of careers. Future, researchers may conduct interdisciplinary research in the fields of professional identity, psychological capital and college students' career decision-making, explore the internal connections and influencing mechanisms between them, expand research horizons and promote interdisciplinary integration. The proposed career management plan may be tabled for evaluation and implementation.

5. References

- Akkermans, J., Richardson, J. and Kraimer, M. L. (2020). The Covid-19 crisis as a career shock: Implications for careers and vocational behavior. *Journal of Vocational Behavior*, 119, 103434.
- Bandura, A. (2018). *Moral disengagement: How people do harm and live with themselves*. Worth Publishers.
- Bandura, A. (2018). Toward a psychology of human agency: Pathways and reflections. *Perspectives on Psychological Science*, 13(2), 130-136.
- Blustein, D. L. (2019). The importance of balancing and compromising in career development. *Journal of Vocational Behavior*, 112, 483-486.
- Boudreaux, M. J., Ozer, D. J. and Bergeman, C. S. (2020). The role of personality in career self-efficacy and career exploration. *Journal of Vocational Behavior*, 116, 103331.
- Brown, D. (2019). The Role of Mindset in Career Decision-Making. *Journal of Career Assessment*, 27(4), 629-643.

- Brown, S. D. and Ryan Krane, N. E. (2019). Moving beyond interest: Perspectives on interest, self-efficacy and success. *Journal of Career Assessment*, 27(1), 3-12.
- Byars-Winston, A. and Rogers, J. (2020). Integrating intersectionality and biopsychosocial-spiritual cultural competencies in vocational development. *Journal of Vocational Behavior*, 118, 103394.
- Cheavens, J. S., Heiy, J. E. and Feldman, D. B. (2019). Hope and goals: Will hope predict academic performance and daily goal progress in school-aged children? *Journal of Positive Psychology*, 14(3), 305-313.
- Chen, L. H., Liu, C. H. and Stone, M. D. (2020). Hope and resilience as predictors of discharge disposition in hospitalized older adults. *Journal of Advanced Nursing*, 76(6), 1457-1466.
- Creed, P. A. and Hood, M. (2018). Explaining Career Success and Job Satisfaction: The Mediating Role of Job Crafting and Volitional Absorption. *Journal of Career Development*, 45(5), 439-453.
- DeCaro, M. S., Rotar, K. E., Kendra, M. S. and Beck, S. R. (2019). Do children trust an informant who is inaccurate but confident? *Journal of Experimental Child Psychology*, 180, 92-105.
- Dincer, B. and Yesilyaprak, B. (2019). Relationship between psychological capital and career decision-making self-efficacy among university students. *Journal of Education and Training Studies*, 7(9), 160-169.
- Egan, V. anderson, J. and Hunter, J. A. (2018). The relationship between Machiavellianism and academic and business career interest: A meta-analytic review. *Personality and Individual Differences*, 134, 137-146.
- Frey, R. A. and Gutman, M. (2020). The Bidirectional Relationship between Psychological Capital and Career Identity: A Longitudinal Study. *Journal of Career Development*, 47(4), 401-414.
- Gallagher, M. W. and Long, L. J. (2019). Hope and gratitude as longitudinal predictors of depressive and anxiety symptoms among Veterans in primary care. *Psychiatry Research*, 273, 181-188.
- Han, K., Nam, C. and Kim, B. (2020). Investigating the effect of career interest congruence on job satisfaction and career engagement among South Korean employees. *Journal of Career Development*, 47(5), 503-517.
- HU Xuejiao, SHAO Ting. (2018). The relationship between college teachers' emotional identity and professional well-being. *Educational Research*, 9, 118-119
- Hu, T., Zhang, Y., Wang, W., Miao, M. and Yuan, X. (2020). The mediating effect of psychological capital on the relationship between proactive personality and career decision self-efficacy. *Current Psychology*, 39(4), 1284-1290.
- Huang ,HJ · Jiang,L. (2019). .he Influence of Individual Traits and External Factors on Career Decision-Making in Career Planning]. *Journal of Education Sciences* 37(1), 70-78.
- Jensen, J. and Butler, J. (2021). The Influence of Career Transitions on Psychological Capital and Career Identity: A Longitudinal Study. *Journal of Vocational Behavior*, 123, 103567.
- Jones, R. and Brown, A. (2020). Exploring Research Interests Among Undergraduate Students. *Journal of Research in Higher Education*, 35(3), 412-429.
- Latham, G. P. and Locke, E. A. (2019). New developments in and directions for goal-setting research. *European Psychologist*, 24(1), 56-67.
- Leng, L., Jin, Y. and Ji, Y. (2019). Influence of psychological capital on career decision self-efficacy and career decision-making difficulties: A moderated mediation model. *Frontiers in Psychology*, 10, 2460.
- Leuty, M. E., Hansen, J. D. and Choi, M. (2018). What types of people are more likely to choose HR careers? An application of the RIASEC model. *Journal of Career Assessment*, 26(1), 38-52.
- Li L., Yao Cuifang (2019). Research on the impact of service quality of college career planning guidance institutions on students' career cognition and career planning. *Technical and Vocational Education*, 40(19), 89-93.
- Li na. (2019) Revision and characteristics of college students' career decision-making questionnaire[D]. Southwest University, 2019
- LI Yanhua, LIU Zhiqiang. (2018). The moderating effect of adolescent resilience on depressive emotion: the mediating effect of resilience and negative emotion[J]. *Chinese Journal of Health Psychology*, 26(4), 524-528.
- Li, X., Guo, Y., Wang, Z. and Xie, Y. (2019). "The relationship between psychological capital, career adaptability and subjective well-being among undergraduates: A longitudinal mediation model." *Frontiers in*

- Psychology, 10, 1332.
- Li, X., Wang, Y. and Chen, H. (2020). The Relationship Between Psychological Capital and Career Identity: The Mediating Role of Career Adaptability. *Journal of Career Development*, 47(6), 679-692.
- Lin, W., Wang, L. and Wu, C. H. (2020). Effects of proactive personality on career decision-making difficulties: The mediating role of career decision self-efficacy and the moderating role of psychological capital. *Current Psychology*, 39(2), 616-626.
- Liu, H., Li, X. and Yuan, J. (2018). The influence of parent and peer career-related behaviors on Chinese adolescents' career decision-making processes: The role of career self-efficacy. *Journal of Career Development*, 45(6), 604-618.
- Liu, J., Wang, M., Liao, H. and Shi, J. (2021). Do I Choose to Be Creative? A Dual Pathway Linking Promotion Focus to Employee Creativity. *Journal of Management*, 47(6), 1551-1577.
- Liu, S. and Cheung, H. Y. (2020). Psychological capital and career decision-making self-efficacy: A cross-lagged analysis. *Journal of Career Development*, 47(6), 642-655.
- Luthans, F., Youssef-Morgan, C. M. and Avolio, B. J. (2019). Psychological capital and beyond: Future directions for researchers and practitioners. In L. M. Roberts and J. B. Dutton (Eds.), *Exploring Positive Psychology: The Science of Happiness and Well-being* (pp. 299-318). ABC-CLIO.
- MacLeod, C. J. and Austin, P. C. (2021). Strategies for improving spatial access to primary care services: A spatial microsimulation approach. *Social Science and Medicine*, 273, 113765.
- Masten, A. S. (2018). Resilience theory and research on children and families: Past, present and promise. *Journal of Family Theory and Review*, 10(1), 12-31.
- Qin Panbo. (2021) Characteristics of college students' occupational identity and related research[D]. Chongqing: Southwest University, 2021
- Ryan, C. and Anderson, M. (2022). The Role of Career Interests and Internal Motivation in Career Decision-Making. *Journal of Vocational Behavior*, 95, 103726.
- Scheier, M. F. and Carver, C. S. (2018). Dispositional optimism and physical health: A long look back, a quick look forward. *American Psychologist*, 73(9), 1082-1094.
- Scheier, M. F. and Carver, C. S. (2018). Dispositional optimism and physical well-being: The influence of generalized outcome expectancies on health. *Journal of Personality*, 86(2), 169-186.
- Seligman, M. E. (2018). *The Hope Circuit: A Psychologist's Journey from Helplessness to Optimism*. Hachette UK.
- Smith, A., Johnson, B. and Davis, C. (2020). University education promotes the development of individual psychological capital, particularly in fostering optimism and hope.
- Su, Yashan. (2021). Research on the Causes and Countermeasures of Low Employment Rate of College Students[J]. *Science and Technology and Innovation*, Vol. 23(12): 68-72.
- SUN Cuiyang. (2024) Research on the Effect of Psychological Capital on College Students' Employability: Mediated by Self-efficacy in Career Decision-making[J]. *Education Progress*, 2024, 14(2): 1610-1617.
- Thieleman, K., Cacciatore, J. and Hill, P. W. (2018). Trauma and posttraumatic growth: A literature review and future directions. *Journal of Loss and Trauma*, 23(3), 203-214.
- Tims, M. and Bakker, A. B. (2018). Job crafting: Towards a new model of individual job redesign. *South African Journal of Industrial Psychology*, 36(2), 1-9.
- Wang, Y., Zhang, S. and Luo, Z. (2021). The Relationship between Psychological Capital and Career Identity: The Mediating Role of Career Adaptability. *Frontiers in Psychology*, 12, 647176.
- Wong, M., and Derber, C. (2018). The Relationship Between Teacher Psychological Capital and Teaching Effectiveness: A Meta-Analysis. *Educational Psychology Review*, 30(2), 431-457.
- XU Hang, WANG Jian. (2018). Research on the relationship between resilience, emotion regulation strategies and subjective well-being of college students[J]. *Chinese Journal of Health Psychology*, 26(7), 977-980.
- Yang Rui and Liu Hong. (2021). A study on the relationship between optimism and immune function. *Chinese Journal of Mental Health*, 35(2), 195-199.
- Yang, X., Wang, C., Zhang, M. and Zeng, M. (2021). The relationship between psychological capital and career decision-making difficulties: The mediating roles of career identity and career adaptability. *Current*

Psychology, 40(3), 1211-1220.

Zhang Kuo, Zhang Sai, Dong Yinghong. *Mental and Behavioral Research*, 8(1) , 2020, 58-64

ZHANG Xiaohong,HUANG Ying. (2019). The Relationship between Resilience and College Students' Psychological Adaptation: The Mediating Role of Self-Regulation[J]. *Chinese Journal of Health Psychology*, 27(1), 133-136.

Zhang, L. F. and Shum, A. K. P. (2020). From psychological capital to career decision self-efficacy: The role of affective organizational commitment. *Journal of Career Development*, 47(2), 180-194.

