

The impact of non-cognitive skills on the quality of youth employment

Haibin Cai *

College of Tianjin University of Technology and Education, Tianjin, China

*Corresponding author: 1172556162@qq.com

Abstract

Young people are an important part of the job market, and improving the employment quality of young people has an important impact on individual career development. In this paper, we used the 2018 China Family Tracking Survey (CFPS) data to investigate the effects of non-cognitive abilities on the quality of employment and its four sub-dimensions based on the Big Five personality model. The results show that Affability and Neuroticism have a significant effect on employment quality and also on the sub-dimensions of employment quality, Dutifulness and Openness have a significant effect on the sub-dimensions although they do not have a significant effect on employment quality, and Extraversion does not have a significant effect on either employment quality or its sub-dimensions. **CONCLUSION:** The development of non-cognitive skills is the key to improving the quality of employment of young people. The development of non-cognitive skills should be taken into account in future educational efforts in schools and skills training in government organizations.

Keywords

Youth; non-cognitive abilities; employment quality; regression analysis; new human capital theory.

1. Introduction

The rise of youth is the rise of the nation, and the strength of youth is the strength of the country. Young people are the main force of the job market, is the main group of people in the period of career advancement, the employment of young people is related to the acceleration of society, but with the rapid expansion of undergraduate education, the growth of jobs can not keep up with the growth of the number of talents, many college students are facing the dilemma of "graduation is unemployment". At the same time, the network widely circulated "a certain generation to rectify the workplace" remarks, from some point of view is difficult to adapt to the workplace life embodiment. All of the above points to the challenges facing the quality of employment for young people today. An important part of young people's long-term development is the development of career paths, in which the results of the family and school education that individuals receive in their early years are ultimately reflected in their career development. Young people are generally at the beginning and middle of their career paths, and are more malleable than middle-aged people, so improving the quality of their employment in the first and middle stages of their career paths is important for their long-term development. Using data from the China Household Tracking Survey, this study explores the relationship between individual non-cognitive abilities and employment quality with young people as the main subjects, aiming to provide empirical evidence for improving the employment quality of young people, as well as a research basis for the education of families and schools, and the training strategies of enterprises.

2. Literature review

2.1. Quality of employment

At present, the academic community mainly defines the concept of employment quality at two levels, macro and micro respectively. From the macro level, employment quality is the socio-economic factors responded by the overall workers in a certain country or region, such as labor protection, employment environment, employment protection, average salary, and other objective factors affecting the employment rate. Goedhuys et al. (2002) believe that the quality of employment is the result of the workers' own overall evaluation of the work situation, and the quality of employment depends largely on the individual's subjective feelings. Van (2014) believes that the quality of employment includes all the elements related to the individual worker's work situation, such as the worker's wage and salary, working hours, working environment, social security and so on should be included. Roopali believes that the quality of employment includes all subjective and objective factors related to employment, such as the degree of match between the job and the worker, and the worker's job satisfaction. (Johri, 2004)

2.2. Non-cognitive ability

Non-cognitive abilities are complementary to cognitive abilities and include multifaceted personality and behavioral traits such as persistence, motivation, temperament, communication skills, self-confidence and self-esteem. (Morris et al, 2023) Some scholars give a more precise scope from the perspective of labor market demand, non-cognitive abilities are personality traits, motivation, leadership, self-esteem, perseverance, self-control, beliefs, and other abilities that contribute to the economic output of an individual. (Zhang et al, 2022) As a result, research on different aspects has led many scholars to define the scope of non-cognitive abilities in an incomplete and consistent manner, although it is certain that non-cognitive abilities are a positive, wide-reaching and currently impossible to accurately summarize in a single factor. [6] With the continuous development of personality psychology, the results of measuring non-cognitive ability have become more and more fruitful, mainly including Rosenberg's self-esteem scale, Rotter's control point scale, and the Big Five personality factor scale. (Rotter, 1966) (Rosenberg, 1965) Most of the traditional human capital theories explore the impact of human capital on macro and micro economy from the perspective of cognitive ability such as education and knowledge. In recent years, the development of human capital theory has caused domestic and foreign scholars to pay attention to non-cognitive ability. One of the major discoveries comes from foreign scholar Hecman, whose major work on the new human capital policy argues that non-cognitive abilities have an important impact on the socio-economic success of individuals. In Hecman's major work on human capital policy in 2003, the importance of cognitive and noncognitive skills developed early in the life cycle in explaining racial, ethnic, and family background disparities, as well as socioeconomic success, was demonstrated. Both abilities are influenced by early family and schooling, but noncognitive skills are more malleable and malleable over the long term, and interventions for noncognitive skills are less costly. (Carneiro, 2023) In recent years, research on the impact of non-cognitive abilities has gradually spread. In addition to individual economic output, scholars at home and abroad have found that non-cognitive abilities can also predict unemployment, criminal behavior, subjective well-being, health, and financial stability. (Malanchin et al, 2023) (Liu, 2020) (Cuesta, 2017) (Cunha et al, 2023) For students, non-cognitive ability can improve their academic performance and cognitive ability, and predict possible future qualifications. (Saltiel et al, 2024)

In the stage of rapid social development, the various pressures faced by people are also rising, and young people are the next generation to undertake the task of rapid economic development in China. In addition to the family expectations of starting a family, young people also have to

face the changes and challenges of the current development of artificial intelligence and technology. In the new era of high-quality economic development, attention should be paid to improving the employment quality of young people, preventing the talent gap and improving social and economic vitality. The employment quality of young individuals is the result of the joint action of the general employment environment and individual non-cognitive ability, and the demand of the current employment market often determines the stay or go of young people in the workplace, and some studies have proved that unemployment has a certain impact on the individual's non-cognitive ability.(Saltiel,2022) Therefore, having good non-cognitive ability at the beginning of career is an important condition to prevent a vicious circle.

Currently, there are relatively rich results on the research between non-cognitive ability and wage income, but there is a lack of results on the complete consideration of the relationship between each dimension and non-cognitive ability from the perspective of employment quality, especially for the group of young people. Therefore, this study tries to answer the following questions: (1) whether non-cognitive ability has an impact on the employment quality of young people; (2) whether there is a difference in the impact of different dimensions of non-cognitive ability on the quality of employment.

3. Data sources and description of variables

3.1. Data sources

The data for this study come from the 2018 China Family Panel Studies (CFPS), a nationwide, large-scale, multidisciplinary social tracking survey implemented by the China Social Science Survey Center (ISSS) at Peking University. The CFPS sample covers 25 provinces/municipalities/autonomous regions, with a target sample size of 16,000 households, including all members of the sample households, and aims to reflect the social, economic, demographic, educational and health changes in China through tracking and collection of data at the individual, household, and community levels, and to provide a data base for academic research and public policy analyses. In 2008 and 2009, CFPS conducted test surveys for initial and follow-up interviews in Beijing, Shanghai, and Guangdong, and formally conducted interviews in 2010. All baseline family members defined by the 2010 baseline survey and their future blood/adopted children will be permanently tracked as genetic members of CFPS.

The National Bureau of Statistics defines young people as those between the ages of 15 and 34. Considering the small number of people in the sample who are underage and already working in the range of 15 to 17 years old, young people aged 18 to 34 years old were selected as the sample population for this study. This study uses the 2018 tracking survey data, and will use the individual household code to merge the individual pool data with the household pool data to obtain the family status of the individual, excluding the samples containing missing values and inapplicable samples, and finally obtains the sample of 2,387 young non-agricultural employed individuals, of which the number of male samples is 1,282, accounting for 53.7%, with an average age of 27.25. The number of female samples is 1,105, accounting for 46.3%, with an average age of 27.36.

Data analysis and processing operations were performed using SPSS 26.0, and statistical methods included multiple linear regression and binary logistic regression.

3.2. Variable operationalization

The dependent variable is employment quality. Considering the changes in the content of the questionnaire each time, four dimensions and eight questions were selected as the measurement indicators of this variable, the four dimensions are: (1) job stability dimension, using whether or not to sign a labor contract to indicate that the signed contract is assigned a

value of 1, and the unsigned contract is assigned a value of 0; (2) the dimension of job satisfaction, using the "How satisfied are you with this job? (2) job satisfaction dimension, using "how satisfied are you with this job", with a five-level scale from dissatisfied to satisfied; (3) job income dimension, using the annual income after tax and the whole year's cash benefits to sum up and take the logarithm of the total; (4) rights and interests dimension, using whether to join the labor union, whether to participate in health care, pension insurance, and whether the working hours are less than 45 hours a week. For each of the four criteria, the entitlement dimension score is increased by one level, resulting in a five-point variable representing the entitlement level, with higher levels representing higher scores on individual work entitlement dimensions. Since the importance of each dimension of employment quality is difficult to measure, the employment quality score is obtained by standardizing the dimensions and then weighting the average with reference to the practice of Zhou Dan

The independent variable is non-cognitive ability. Based on the content of the 2018 Family Tracking Survey questionnaire, the widespread use of the theory, and the degree of agreement among internal and external scholars, this study constructs the Big Five Personality Measurement Framework to measure the non-cognitive abilities of individuals.(Mcgue,2020) The Big Five include dutifulness, openness, extraversion, neuroticism, and affinity. Dutifulness is defined as having a sense of accomplishment, being responsible, being reliable, and behaving in a rigorous manner, and is measured by five questions in the questionnaire, such as "doing things efficiently" and "having a sense of accomplishment". Extraversion is defined as the tendency to be social, energetic, dominant, and to experience positive emotions, and is measured by six questions in the questionnaire, such as "How important it is not to be alone" and "Talkative". Openness is measured by the degree to which the individual seeks intellectual, artistic and experiential curiosity, as measured by the five questions in the questionnaire, such as "Imaginative" and "Values artistic and aesthetic experiences". Affinity is defined as the degree to which one tends to get along and cooperate with others, to trust others, and to be tolerant, as measured by six questions in the questionnaire, such as "How well do you get along with people" and "How much do you trust strangers". Neuroticism is reflected in the tendency to experience negative emotions or thoughts. The stronger the neuroticism dimension is, the more likely it is to show anxiety and depression, which is measured by five questions in the questionnaire, such as "I worry a lot" and "I feel depressed", etc. Subsequently, for the sake of convenience of presentation and scoring, the scores of the changed dimensions are reversed. In order to facilitate the presentation and scoring, the scores of the dimension were reversed to the "mental stability" dimension. In order to facilitate the calculation of the total score for each dimension, the questions with different scoring methods were transformed, and the questions of each dimension were added together to obtain the total score of the dimension. Details of the questions are shown in Table 1.

Table 1 Measures of the dimensions of non-cognitive ability

dimension (math.)	Corresponding questions for the CFPS questionnaire 2018
due diligence	In today's society, hard work pays off (1 to 5, strongly disagree - strongly agree)
	Importance of having a sense of accomplishment (1 to 5, not important - very important)
	Doing things rigorously and conscientiously (1 to 5, not at all - fully compliant)
	Tends to be lazy (1 to 5, does not match at all - matches perfectly)
	Doing things efficiently (1 to 5, not at all - fully compliant)

openness	Importance of passing on the family name (1-5, not important - very important)
	Original, generates new ideas (1 to 5, not at all - fully compliant)
	Valuing artistic and aesthetic experiences (1 to 5, not at all - fully compliant)
	Imaginative (1 to 5, not at all - completely)
	Importance of using the Internet to socialize for me (1 to 5, not important - very important)
extraversion	Importance of not being alone (1 to 5, not important - very important)
	Importance of having fun in life (1 to 5, not important - very important)
	Cheerful and social (1 to 5, not at all - completely)
	Loves to talk (1 to 5, not at all compatible - fully compatible)
	Implicit, conservative (1 to 5, not at all conforming - fully conforming)
compatibility	Level of confidence in your future (1 to 5, very unconfident - very confident)
	Importance of not being disliked by others (1 to 5, not important - very important)
	For the sake of others (1 to 5, not at all - fully compliant)
	Inherently more tolerant (1 to 5, not at all compatible - fully compatible)
	Sometimes rude and unkind to others (1 to 5, not at all - completely)
neuroticism (reverse scoring to "mental stability")	Level of trust in strangers (0-10, often distrustful - very trustful)
	How well do you think you are liked (0-10, very bad - very good)
	Often worried (1 to 5, not at all consistent - fully consistent)
	I feel emotionally drained (1 to 5, not at all true - fully true)
	Easily stressed (1 to 5, not at all - completely)
	Is relaxed and copes well with stress (1 to 5, not at all true - completely true)
	I find it a struggle to do anything (1 to 5, not at all - completely)

The control variables were chosen to be less relevant to non-cognitive abilities but may have an impact on the quality of individual employment, including (1) gender, with males assigned a value of 1 and females assigned a value of 0; (2) age; (3) type of registered permanent residence, with agricultural registered permanent residence assigned a value of 1 and non-agricultural registered permanent residence assigned a value of 0; and (4) whether or not one is a member of the party, with party members assigned a value of 1 and non-members of the party assigned a value of 0.

4. Analysis of results

4.1. Descriptive analysis

The mean value of the youth job stability dimension is 0.7, which is greater than 0.5, indicating that the job stability of the youth in the sample is more optimistic; the mean value of the job rights and interests dimension is 2.61, indicating that the job rights and interests of the youth

in the workplace are not adequately protected at the present time; the mean value of the job satisfaction is 3.66, with a small standard deviation, indicating that the youth group has a higher level of job satisfaction and smaller differences in stability; and the mean value of the logarithm of job income is 4.52 (45,962 yuan), which is lower than the 2018 national per capita total income of 66,651 yuan, which is consistent with the positioning that young people are at the beginning of their career paths and have a large space for upward mobility. As can be seen in Table 2, all five dimensions of non-cognitive ability have a significant positive correlation with employment quality.

For the control variables, the mean value of gender was 0.54, indicating that there were slightly more males than females in the sample. The mean value of age is 27.25, with a standard deviation of 3.899, indicating a more even age distribution of youth in the sample. The mean value for household type is 0.69, with 1,639 agricultural households and 749 non-agricultural households. The mean value for the party membership variable is 0.04, with 87 party members and 2,300 non-party members in the sample.

Table 2 Descriptive statistics of the main variables

Variable type	variable name	retrieve a value	average value	maximum values	minimum value	(statistics) standard deviation	Analysis of variables related to the quality of employment
implicit variable	Quality of employment	Standardized score for quality of employment	-0.03	3.17	-1.82	0.62	
	Work Stability	Employment stability combined indicator score (0-1)	0.70	1.00	0.00	0.46	0.73**
	working interest	Score on the combined indicator of work equity (1 to 5)	2.61	5.00	1.00	1.32	0.76**
	Job satisfaction	Job Satisfaction Combined Indicator Score (1-5)	3.66	5.00	1.00	0.80	0.48**
	Income from work	Logarithm of income from work	4.52	5.70	2.48	0.39	0.54**
independent variable	due diligence	Due diligence dimension topic score (0-20)	13.01	20.00	4.00	2.23	0.09**
	extraversion	Extraversion degree topic score (0-24)	16.42	24.00	5.00	3.06	0.08**
	openness	Open-endedness topic score (0-20)	12.48	19.00	4.00	2.47	0.07**

control variable	compatibility	Affinity score (0 to 24)	15.04	22.00	5.00	2.61	0.13**
	mental stability	Mental stability topic score (0-20)	10.90	18.00	0.00	2.72	0.14**
	distinguishing between the sexes	Male = 1, Female = 0	0.54	1.00	0.00	0.49	0.04*
	(a person's) age		27.30	34.00	18.00	3.88	0.16**
	Account type	Agricultural households = 1, non- agricultural households = 0	0.69	1.00	0.00	0.46	-0.27**
	Party membership	Party members = 1, non-members = 0	0.04	1.00	0.00	0.19	0.07**

4.2. Regression analysis of employment quality

Table 3 presents the results of the regression of each dimension of employment quality on each dimension of non-cognitive ability. There are two columns for employment quality and each of its dimensions; the first column contains the impact coefficients of the regression model that includes only the explanatory variables, and the second column contains the impact coefficients of the regression model that incorporates the control variables. All impact coefficients are unstandardized. Among them, the Durbin-Watson test DW values in the analyzed results of the three dimensions of job equity, job satisfaction, and job income are all close to 2, which meets the analysis criteria. Tolerance in the linear regression model all meet the analysis criteria, and the covariance of each variable meets the criteria.

For the quality of employment, affinity as well as mental stability significantly and positively affect the quality of employment without the inclusion of control variables. With the inclusion of control variables, the effects of both remain significant. For the control variables, the effect of gender differences was not significant. Age significantly predicted employment quality, with employment quality increasing by 0.059 units for every 1 unit increase in age. Party membership significantly predicts employment quality, with party youth having significantly higher employment quality than non-party youth. Agricultural registered permanent residence significantly predicts employment quality, with youth in non-agricultural registered permanent residence having significantly higher employment quality than youth in agricultural registered permanent residence.

Job stability dimension, without adding control variables, affinity and mental stability in non-cognitive ability all have a significant effect on job stability, in which the positive influence coefficient of mental stability indicates that the more emotionally stable the young people in the sample are, the higher the probability of signing a labor contract and the higher the job stability. Affinity positively predicts job stability and the impact coefficient of affinity is higher. The effects of dutifulness, openness and extroversion on job stability were not significant. With the inclusion of control variables, the effects of dutifulness, extroversion, and openness were not significant, and the effect of affinity was significant, but the significance of mental stability decreased ($p < 0.05$). For the control variables, gender differences were not significant. Age significantly predicted job stability, with job stability increasing by 0.021 units for every 1 unit increase in age. registered permanent residence type reference type is non-agricultural

registered permanent residence, registered permanent residence type significantly predicts job stability, non-agricultural registered permanent residence youth job stability is significantly higher than agricultural registered permanent residence youth, non-agricultural registered permanent residence has higher probability of signing a labor contract and job stability compared to agricultural registered permanent residence. Party membership significantly predicts job stability, and the employment rights and interests of party youth are significantly higher than those of non-party youth.

For the job entitlement dimension, without the inclusion of control variables, the noncognitive abilities of due diligence, affinity, and neuroticism had a significant effect on job entitlement, with due diligence negatively predicting job entitlement, and mental stability and affinity positively predicting job entitlement, with affinity having the largest effect. After adding control variables to the model, the effect of due diligence was explained by the control variables, and the affinity as well as mental stability dimensions remained significant. Age had a significant positive effect on job equity, with job equity increasing by 0.03 units for every 1 unit increase in age. registered permanent residence type significantly predicts work entitlement, and using youths with agricultural registered permanent residence as a reference, youths with non-agricultural registered permanent residence gained more work entitlement compared to youths with agricultural registered permanent residence. Party membership significantly predicts work equity, with party youth having significantly higher work equity than non-party youth.

For the job satisfaction dimension, without adding control variables, the non-cognitive abilities of dutifulness, openness, affinity, and neuroticism all had a significant effect on job satisfaction, and dutifulness, openness, affinity, and mental stability significantly and positively predicted job satisfaction, with dutifulness having the greatest effect. After the inclusion of control variables, there was not much exponential change in the dimensions of non-cognitive ability in the overall model, except for a slight increase in the impact coefficient of mental stability. The gender variable significantly affects job satisfaction, with females as the reference, and males have lower job satisfaction relative to females. Age had no significant effect on job satisfaction. registered permanent residence type significantly predicts job satisfaction, and youths with non-agricultural registered permanent residence are more satisfied with their jobs compared to youths with agricultural registered permanent residence. Party membership had no significant effect on job satisfaction.

For the job income dimension, without the inclusion of control variables, mental stability significantly and positively affects job income, with emotionally stable youth more likely to earn higher incomes. The effect of mental stability remains significant after adding control variables. Gender has a significant effect on work income, with young males earning more than young females. Age has a significant positive effect on work income, with work income rising by 0.025 units for every 1 unit rise in age. registered permanent residence type has a significant effect on work income, with non-agricultural registered permanent residence youth having higher income compared to agricultural registered permanent residence youth. Party membership has no significant effect on work income.

Table 3 Results of regression modeling of employment quality on non-cognitive skills

variant	Work Stability		working interest		Job satisfaction		Income from work		Quality of employment	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Mode 1	Mode 2
due diligence	0.001	0.013	-0.029*	-0.016	0.037**	0.040**	0.007	0.004	0.016	0.031

extraversion	-0.012	-0.013	0.002	0.000	0.007	0.005	0.001	0.003	0.007	0.006
openness	-0.022	-0.026	-0.011	-0.012	0.022*	0.023*	0.005	0.005	0.012	0.010
compatibility	0.056**	0.053*	0.056**	0.053**	0.014*	0.014*	-0.001	-0.001	0.081**	0.076**
mental stability	0.047**	0.043*	0.035*	0.035**	0.026**	0.029**	0.010**	0.006*	0.080**	0.079**
distinguishing between the sexes		0.134		-0.087		-0.004**		0.157**		-0.042
age		0.021*		0.033**		-0.076		0.025**		0.059**
Account type		-0.778**		-0.840**		-0.076*		-0.091**		-0.157*
Whether or not a member of the party		0.282		0.385*		0.090		0.017		0.546*
R2	0.009	0.037	0.018	0.131	0.043	0.053	0.009	0.127	0.031	0.152
F/Hosmer-Lemeshow test	0.42	0.83	8.78**	35.92**	21.45**	13.86**	4.39**	34.59**	15.42**	47.56**
N	2387	2387	2387	2387	2387	2387	2387	2387	2387	2387

Note: * p<0.05, ** p less than 0.01, *** p<0.001

4.3. Robustness check

The robustness test of this paper takes into account the long-term nature of the impact of non-cognitive ability, and selects youth born before 1990 as the analyzing population, the age range of post-80s youth in this study is 29-34 years old, and 990 post-80s youth workers were selected by age as a condition for sample screening. This group of people belongs to the workers who have entered the workplace for a longer period of time, and the growing environment and educational experience is quite different from that of the "90" youth. (Martín-Raugh, 2021) (Shure et al, 2023) The results of the analysis can verify the long-term effect of non-cognitive ability on employment quality to a certain extent, and can also test the robustness of the results of this paper. The results of the robustness test are roughly the same as the results of the model in this paper, with the significant (p<0.001) results remaining significant, while some of the significant (p<0.05) results in the original model are changed to non-significant, which is probably due to the fact that some dimensions of non-cognitive ability have a lesser impact on the post-1980s youths, which also reflects the necessity of narrowing down the sample to the post-1980s youths to be analyzed in this part of the paper. Overall, the results of the robustness test increase the reliability of the findings of this paper.

5. Conclusion and discussion

Based on the 2018 China Family Tracking Survey (CFPS) data, this paper empirically tests the impact of non-cognitive abilities on employment quality based on measuring the five dimensions of non-cognitive abilities as well as the quality of employment and its four dimensions, and the analysis results show that the dimensions of dutifulness, openness, affinity, and mental stability of non-cognitive abilities have a significant impact on the quality of employment of young people or its sub-dimensions and the extroversion dimension does not have a significant effect. Specifically, dutifulness personality individuals have a sense of accomplishment, work rigorously and conscientiously, and there is a significant effect on the youth's job satisfaction dimension. Openness manifests itself in the pursuit of a sense of intellect and curiosity, and there is a significant effect on the job satisfaction dimension. Mental Stability has a wide range of impacts, affecting the total employment quality score as well as most of the dimensions, reflecting the gradual shift in the Chinese labor market's demand for young people from "working honestly" to creativity and self-regulation. Affinity shows the ability to cooperate and tolerance. In addition to income, the quality of employment and the three dimensions are all affected by it. Human beings are social animals, and how to get along with superiors and colleagues and how to cooperate in the workplace are also skills that must be learned in one's career. Mental stability, on the other hand, is the only personality trait that has a significant impact on job quality and all dimensions, and a stable and positive mental state can help young people improve their job quality.

This study helps families, schools, and enterprises to pay better attention to the cultivation of young people's non-cognitive abilities. First of all, most families nowadays emphasize their children's cognitive ability, expect them to perform well in academics, enter university and then succeed in the workplace, and do not pay enough attention to non-cognitive ability, not realizing that if the cultivation of non-cognitive ability is missing, the future children may become "giant babies in the workplace", which is not conducive to their career in the workplace, and non-cognitive ability also has a positive influence on students' academic performance. Non-cognitive skills also have a positive impact on students' academic performance. (Shure,2021) (Leight,2019) Non-cognitive skills also have a positive impact on students' academic performance. Some studies show that in rural families, mothers with high education level can pay more attention to the differences in non-cognitive abilities among children, so as to reduce such differences in their daily behaviors, while mothers with low education level will increase such differences, and at the same time, the way of family upbringing also affects the development of children's non-cognitive abilities.(Grätz,2022)(Allen,2012) This shows that family education plays an important role in developing non-cognitive processes. Parents should set an example in their daily education and emphasize on the education of children's non-cognitive ability. Secondly, school education should not only focus on cognitive ability, but should be centered on the two dimensions of cognitive ability and non-cognitive ability to build a complete and healthy framework of ability cultivation, so as to enable students to develop in a comprehensive manner and maintain long-term competitiveness in the workplace. Finally, when training young people who have just joined the company, enterprises should focus on the cultivation of non-cognitive abilities in addition to the skills necessary to complete the work, which will help the development of cooperation within the company and improve the stability of the company's personnel.

There are some shortcomings in this study. The research data come from a single year database and are cross-sectional, failing to conduct a tracking study on the relationship between non-cognitive ability and employment quality; future research may combine individual data from several years' databases to construct individual tracking data based on multi-year databases about non-cognitive ability and employment quality, and to explore the relationship between

the two in greater depth. In addition, some of the data in the sample in the 2018 database had a high number of missing values, and other dimensions of employment quality could not be included in the analysis, after which a more complete analytical model might be constructed by selecting a different year or merging the multi-year databases for analysis.

References

- [1] Goedhuys M .Employment Creation and Employment Quality in African Manufacturing Firms[J].ILO Working Papers, 2002.
- [2] Van Aerden K , Moors G , Levecque K ,et al. The relationship between employment quality and work-related well-being in the European Labor Force[J]. Journal of Vocational Behavior, 2015, 86(feb.):66-76.DOI:10.1016/j.jvb.2014.11.001.
- [3] Johri R .Work Values and the Quality of Employment: a Literature Review[J].new zealand department of labour, 2004.
- [4] Morris T T , Smith G D , Berg G V D ,et al. Consistency of noncognitive skills and their relation to educational outcomes in a UK cohort[J].Translational Psychiatry[2023-09-21].
- [5] Zhang S, Zhang H, Sargani G R, et al. Non-Cognitive Skills and Farmers' Entrepreneurial Performance: Evidence from Chinese Family Panel Studies[J]. Agriculture, 2022, 12(8): 1143.
- [6] Carneiro P M , Heckman J J .Human Capital Policy[J].Social Science Electronic Publishing[2023-09-21].
- [7] Rotter J B .Generalized expectancies for internal versus external control of reinforcement[J]. Psychological Monographs, 1966, 80.
- [8] Rosenberg M .Society and the Adolescent Self-Image[J].Social Forces, 1965, 3(2).
- [9] Carneiro P M , Heckman J J .Human Capital Policy[J].Social Science Electronic Publishing[2023-09-21].
- [10] Malanchini M, Allegrini A G, Nivard M G, et al. Genetic contributions of noncognitive skills to academic development[J]. bioRxiv, 2023: 2023.04. 03.535380.
- [11] Liu A. Non-Cognitive skills and the growing achievement Gap*[J]. Research in Social Stratification and Mobility, 2020, 69: 100546.
- [12] Cuesta M B, Budría S. Unemployment persistence: how important are non-cognitive skills?[J]. Journal of Behavioral and Experimental Economics, 2017, 69: 29-37.
- [13] Cunha F , Heckman J J .The Technology of Skill Formation[J].Social Science Electronic Publishing[2023-09-21].
- [14] Yuan Z , Business S O .Can the Employability of Rural Migrant Workers Promote Their Employment Quality?--An Empirical Study Based on Intergenerational and Urban-Rural Comparison[J]. [2024-08-23].
- [15] Saltiel F , Review E O E , Cohn E .Gritting it out: the importance of non-cognitive skills in academic mismatch[J].
- [16] Mcgue M , Willoughby E A , Rustichini A ,et al. The Contribution of Cognitive and Noncognitive Skills to Intergenerational Social Mobility:[J]. Psychological Science, 2020, 31(7):835-847.
- [17] Martín-Raugh M, Kell H, Ling G, et al. Noncognitive skills and critical thinking predict undergraduate academic performance[J]. Assessment & Evaluation in Higher Education, 2023, 48(3): 350-361.
- [18] Shure N. Non-cognitive peer effects in secondary education[J]. Labor Economics, 2021, 73: 102074.
- [19] Leight J , Liu E .Maternal Education, Parental Investment and Non-Cognitive Characteristics in Rural China[J]. Change, 2019.
- [20] Grätz M, Lang V, Diewald M. The effects of parenting on early adolescents' noncognitive skills: evidence from a sample of twins in Germany[J]. Acta Sociologica, 2022, 65(4): 398-419.
- [21] Allensworth, Elaine.Teaching Adolescents to Become Learners: The Role of Noncognitive Factors in Shaping School Performance--A Critical Literature Review.[J].Consortium on Chicago School Research, 2012.