

# Research on the Problem of "Overeducation" in China

Zhou Wenjing\*

Liangshan Experimental High School, Jining, Shandong, 272000, China

\*Corresponding author: 2247369054@qq.com

**Abstract:** At present, the phenomenon of overeducation has emerged in China, such as the heavy burden of schoolwork on students and the difficulty of choosing a career for graduates, resulting in a crisis of academic overload and the whole society being overwhelmed by the pressure of "involution". From "inadequate education" to "academic overload" is a major shift in the development of education in China. However, the overeducation behind "academic overload" has had a negative impact on the development of education, causing not only "intellectual unemployment" but also exceeding the needs of students' healthy physical and mental growth. How to solve the academic overload crisis has become an urgent issue. Based on the current situation of education, this paper analyses the causes and dangers of overeducation from the basic education to higher education levels to propose measures in different terms.

**Keywords:** overeducation; academic overload; basic education; higher education

## 1. Introduction

In order to promote economic growth and relieve employment pressure, in December 1998, the Ministry of Education issued *Action Plan for Education Rejuvenation for the 21st Century*, marking the beginning of university enrollment expansion, as a result that the number of undergraduates and postgraduates rapidly increased [1]. As the scale of higher education expanding, the 2023 class of national college graduates is expected to reach 11.58 million, with master's degree graduates exceeding undergraduates for the first time in Beijing. Overeducation at the tertiary level not only fails to bring economic benefits to match, but induces overeducation at the basic education level, seriously hindering national development, social progress and personal growth. For individuals, overeducation is the result of workers accepting jobs below their level of education, resulting in the ineffective use of educational resources; for the labour market, widespread over-education increases social costs and undermines the quality of employment, which is reflected in an overall mismatch between the structure of human capital supply and the structure of job skills demand, and is difficult to alleviate or adjust on its own in the short term [2]. The solution to the academic overload crisis at this stage is to enable China to complete the transition from a "demographic dividend" to a "talent dividend". The overeducation crisis arises in higher education, but its causes are not only related to the overeducation in higher education, but also closely related to the overeducation in basic education. This paper is to put forward measures to solve academic overload crisis by discussing overeducation happened from basic education to higher education.

## 2. Review of the Literature

### 2.1 Definition of overeducation

There is no developed specific concept in the early days of overeducation, but many educators have mentioned in their educational monographs that education should follow the laws of children's physical and mental development and emphasise appropriate education [3]. Research on overeducation was first based on a vision of the economics of education, focusing on the higher education stage and studying the relationship between talent development and market demand, knowledge and skills and job requirements.

The term "overeducation" was first introduced by the American economist Freeman R. in 1976 in *The Overeducated American*. The book pointed out that the return on university education had fallen below historical levels and outlined the imbalance between the supply of and demand for talent, the process of higher education talent, the overeducation and the unemployment caused by the "devaluation of knowledge" [4]. In *International Encyclopedia of Economics of Education*, J. Bishop defines

"overeducation" as "a society or individual having more education than he/she needs or expects" [5]. After that, Henry M. Levin proposes three specific criteria for determining overeducation: (1) the economic status of people with the same level of education is now lower than that of people with a historically higher level of education; (2) the educated person fails to meet his/her expectations of educational achievement; and (3) the worker has more skills than his/her job requires [6]. There is not yet an accepted consensus on overeducation, but there is a common concern about the definition of it : workers in the labour market are better educated than their jobs require, resulting in a mismatch between education and work.

## ***2.2 Previous study on overeducation***

Since the introduction of the concept, studies based on Human Capital Theory [7], Job Competition Models [8], Allocation Theory [9] and Occupational Mobility Theory [10] have been produced to explore the phenomenon of overeducation from different perspectives. Initially, research on overeducation was mainly focused on developed countries, with research directions closely linked to the labour market and higher education. At the beginning of the 21st century, research on overeducation was mainly focused on the effects of overeducation, overeducation and job, overeducation and undereducation, overeducation and job mobility, as well as overeducation and human capital. Between 2005 and 2012, overeducation and job satisfaction of workers, overeducation in developed countries, overeducation and overqualification, and occupation-education mismatch gradually became emerging hot topics in the field. Studies have found that overeducation is more likely to occur among graduates with equivalent qualifications, skill deficiencies, ethnic minorities, immigrants and gender. Overeducation is less rewarding than moderate education, both for companies and individuals. As workers are less satisfied with their jobs, this not only leads to lower productivity and negative emotions, but also to greater corporate liquidity and career mobility [11], which is not conducive to solid business growth.

At first, the research on overeducation in China focuses on the overeducation occurring on young children due to family member's overindulgence as well as the introduction of the concept and status of overeducation abroad. Its research fervour began at the turn of the century, prompted by the rapid expansion of higher education enrolment in 1999, which increased by 47.32% over the previous year, and has been on a growth trend every year since then. This led to an explosion of research on overeducation as the dividend from higher education diminished from 2004 onwards. Several empirical studies have shown that there are varying degrees of overeducation in the labour market in developed and some developing countries, and that there is already an overall overeducation in the current labour market in China [12].

The research on overeducation in China has been largely aligned with international standards in terms of research topics, research methods and so on. Theories and measurement methods related to overeducation have been comprehensively introduced in China [13], and the moderate range of overeducation in China has been measured [14-15]. Empirical studies on the incidence of overeducation based on large sample data have been very common [16], and analyses of the mechanisms and causes of the impact of overeducation based on large data also exist [17-20]. Studies on overeducation at the higher education level, employment of college graduates [21] and occupation-education mismatch [22] are also hot topics. And there are also innovative studies that analyze the overeducation dilemma from a psychological perspective [23]. Unlike foreign scholars who study the contradiction between education and economy based on economics and human capital theory and other common theories, researchers in China have given a new meaning to overeducation, and studies based on primary and secondary education have emerged.

Overeducation at primary and secondary school refers to education that exceeds the limits of the mental and physical developmental needs and developmental domains of primary and secondary school students. The concept has also gradually taken on the meaning of over-learning, linked to the academic burden of primary and secondary school students, which has already become a hot topic of social discussion. However, the number of studies on overeducation at the primary and secondary levels is small, focusing mainly on the analysis of the current situation and problems of overeducation in primary and secondary schools, without being integrated with higher education to find out the solution. Meanwhile, as the current situation is time-sensitive, and some of the initiatives are no longer applicable to the solution of the problem of overeducation at the present stage. This paper therefore provides a detailed analysis of the current state of overeducation in the current education system in order to offer a comprehensive approach to solving the overeducation crisis.

### **3. The reality of the problem of overeducation in China**

#### ***3.1 Knowledge-based teaching at primary and secondary levels***

On 24 July 2021, Opinions on Further Reducing the Burden of Homework and Off-Campus Training for Compulsory Education Students was jointly issued by the General Office of the Communist Party of China Central Committee and the General Office of the State Council, reflecting the importance China attaches to the problem of excessive academic burdens in primary and secondary schools and the urgency of reducing them. Although the government has made great efforts to implement the “double reduction” policy, in practice the strange phenomenon of “the more the burden is reduced, the more it becomes” has emerged. The “involution” of basic education has left the implementation of the “double reduction” policy on the surface, and resulted in overeducation. In many regions, a large amount of homework takes up the time for after-school services and recreation for primary school students, in which mechanical homework occupied most of the time. Some compulsory schools even use the after-school service as a way of taking away the rest time of primary and secondary school students to carry out their normal teaching work. According to a survey, about one-third of junior and senior high school students feel that the burden of classroom work has increased or significantly worsened after the implementation of the “double reduction” policy, and that they need to complete a certain amount of practice questions in addition to the daily required textbook assignments [24]. Schools have programmed parenting through a tightly scheduled teaching and learning activity, leaving student growth in a state of control and command. And they also attach importance to knowledge-based learning and lower the moral education. Comprehensive human development subject teaching activities were relegated to knowledge and skill transfer activities at the junior and senior secondary levels, and the goal of test success was set as the ultimate goal of education and teaching. The comprehensive and enriching educational goals set at the basic education level to realise the fundamental task of establishing moral education have been reduced to simple goals of declarative knowledge education, and “quantitative scores” have become the measure of educational teaching in schools.

#### ***3.2 Utilitarianism at higher education level***

In March 2023, the unemployment rate of young people aged 16-24 reached 19.6% as recent college students crowded into the labour market, with higher education unemployment rates lower than lower education rates. And a worker's first degree and the institution from which they graduated with their final degree have an impact on their over education, the higher the level of school, the lower the incidence of overeducation [25]. However, as the extremes of utilitarianism, the phenomenon of education for all anxiety has intensified. In order to increase their competitiveness, young people have chosen to extend their years of education to further their study for the sake of advanced degree and more academic achievements. However, the supply of human capital in higher education is gradually saturated with the demand of labour market at present, and the scale of higher education expansion cannot release the matching higher education talent dividend, resulting in the phenomenon that some human capital is wasted because it cannot be fully utilized as a new driving force for economic growth.

#### ***3.3 Lagging development of vocational education***

There is a disconnect between the skills provided by vocational education today and the labour market, making overeducation appear in vocational schools whose graduates has become one of the groups with the highest degree of job mismatch [26]. The effective supply of vocational education is inadequate, and there is a mismatch between the scale and structure of the education system and the high quality of socio-economic development. Despite national policies to develop vocational education, it is generally excluded from the “formal education” system. According to the data of *Large-scale Questionnaire Report on the Development of Vocational Education in China* published in November 2021, the main difficulty facing the development of vocational education at present is “Social recognition”. Many employers bring prejudices into the job market and turn away graduates from vocational colleges, causing students and parents to develop a one-sided perception of the low recognition of vocational education.

#### **4. The dangers of overeducation**

##### ***4.1 Waste of national educational resources***

Overeducation leads to the degradation of life and increases the risk to human civilisation, which in turn hinders the progress and development of nations. Overeducation can also lead to Reverse Transfers, where graduates from formal university education return to vocational and technical schools or skills centres to obtain the vocational qualifications they need [27]. The 'knowledge unemployment' resulting from overeducation is a waste of national educational resources and funds, while the unemployment of knowledge workers is a waste of our human resources. Overeducation, both in and out of school, generates excessive competition for education and uneven distribution of resources, thus widening the gap in education, which is not favorable equitable education.

##### ***4.2 Contrary to the nature of education***

Schools achieve utilitarian teaching goals through time squeeze, such as intensive scheduling of activities for students, and precise control of time to always keep students in high gear. The overwork brought about by overeducation in schools puts students under great physical and mental stress, while the learning outcomes produced by the overwork do not give them spiritual satisfaction. The structure of school time, based on utilitarianism and instrumentalism, deprives students of the opportunity to grow and develop freely, and places a heavy burden on teachers and students. Moreover, as education becomes more 'involved', its utilitarian and instrumental value is reinforced, while its proper nurturing function is constantly being reduced. However, the one-sided pursuit of externalised educational outcomes and the neglect of the original intention of nurturing people go against the rules of individual physical and mental development and individual differences, leaving students in a passive state of teaching and lacking the ability to think independently, which defeats the purpose of education in China at this stage. At the same time, the school as a pure and fertile ground, if eroded by utilitarian aims, it will make against talent training and teacher ethics construction.

##### ***4.3 Unfavorable to all-round development of students and the benefits of education short of parental expectations***

The main content of overeducation is mainly intellectual, which is not conducive to the all-round development of students' moral, intellectual, physical, aesthetic and labour. Through frequent and excessive lecturing, the boring and tedious teaching contents make students lose the joy of learning and become bored with learning. At the same time, overeducation is contrary to the laws of physical and mental development of students, and the prolonged stressful learning conditions result in physical weakness and increased mental illness. Primary and secondary education revolves around university entrance examinations, resulting in students with high scores and low performance and poor social adaptability. Meanwhile for college graduates, overeducation has made the supply of workers greater than the demand, resulting in workers being paid less or unable to work in occupations corresponding to their studies. By analysing data from 2015 China College Graduates Employment Survey, the result shows that after controlling for the effects of other factors, overeducated graduates perceive their human capital to be out of line with their output so that their employment satisfaction is lower compared to moderately educated graduates [22]. Analysis of data from Chinese General Social Survey (CGSS 2015) shows that overeducation enhances workers' propensity to leave their jobs by reducing job satisfaction and job security, which has a negative impact on workers' career development [28]. At the same time, the compensatory effect of overeducation in helping disadvantaged groups (women, fathers with lower education, rural household registration and university graduates from the central and western regions) is limited and tends to diminish [29]. The diminishing dividends generated by overeducation have led to a decline in the return on investment for the individual educated, which is lower than the psychological expectations of students and parents. More importantly, the punitive effect of overeducation on the educated does not diminish with age and work experience but is further exacerbated [30].

#### **5. Analysis of the causes of overeducation**

##### ***5.1 Lengthy school system and unreasonable higher education specialisation***

The current academic system in China is too long to adapt to the changes in society and the current laws of physical and mental development of students. It takes nineteen years to complete a university undergraduate degree, and the excessive length of study time leads to a heavy burden of coursework for students, lengthening the education realisation cycle. The significance of the college entrance

examination makes it difficult to put the 'double reduction' policy into practice. At present, there is an obvious structural imbalance between the supply and demand of higher education graduates in China, which is mainly due to the solidification of the talent training mechanism and the decline of the quality of college graduates prompted by ineffective overeducation. The professional settings and training mode and the labor market differences brought by regional differences and urban-rural differences will have an impact on the overeducation of graduates [31]. The unreasonable structure of some major settings in colleges and universities, which are too traditional and old-fashioned, lead to the supply of education not keeping up with the times. The speed of change in the demand of employers for various talents far exceeds the speed of professional training of talents in colleges and universities, forming a time gap between the supply and demand market of talents; the information gap and time gap between the promulgation of national policies and the people's understanding of them also contribute to the occurrence of ineffective "involution" and overeducation. At the same time, the expansion of higher education has significantly increased the probability of overeducation of individuals. Moreover, with the expansion of higher education, the growth rate of graduates with high qualifications far exceeds the number of jobs that can be created by the current economic development to match their qualifications, and the supply exceeds demand creating a relative disadvantage for graduates in the labour market at the corresponding level, which exacerbated the phenomenon of overeducation.

### ***5.2 The prevalence of academicism and a single assessment mechanism for progression to higher education***

Labour Market Segmentation theory suggests that labour markets can be divided into primary and secondary labour markets. The primary labour market offers high wages, good pay, superior working conditions, mental opportunities and job security, while the secondary labour market is the opposite. The higher the current level of education, the greater the chance of employment in the primary labour market. However, in the primary labour market, employers have an unscientific approach to recruitment, with credentialism prevailing, ignoring the requirements of job applicants and blindly raising the academic threshold in order to highlight their status, which leads to a waste of talent. So nowadays, schools are not focusing on the nature of education but on the screening mechanism of education. Although the government has introduced national policy adjustments, the college entrance examination which determines one's future competitiveness in society and even changing one's destiny has made the score-first education evaluation system an agreed assessment mechanism in the education sector. Schools reap the benefits of a good reputation and a steady stream of excellent students because of high promotion rates, teachers gain accolades and titles for excellence in teaching, and students are screened for admission to schools with better resources in all areas because of their higher scores in tests. As a result, students are pressured to learn more declarative knowledge in order to improve their scores in examinations, and repeated mechanical exercises are carried out to improve their test-solving skills, resulting in over-learning.

### ***5.3 The influence of old stereotype and the profit inducement of investment in education***

Firstly, influenced by the traditional belief that "to be a scholar is to be the top of society", Chinese people believe that the higher the education level, the better the future development, and place high hopes on education to change their fate and social status which results in over-investment in education ignoring the current situation of declining returns on education and the degree downgrade. It has also been a social contract since ancient times that vocational education is to be regarded as a last resort which is eliminated by the education screening mechanism. Secondly, the traditional Chinese virtue of hard work and endurance is also a spiritual nourishment to motivate students to study hard. But for minors who are not yet mentally mature, it has a significant motivational effect and at the same time gives them great mental pressure, thus breaking the law of physical and mental development to force themselves to over-study. At last, Human Capital Theory or Signalling Theory suggests that by investing in education, an individual can obtain a better job and thus increase his or her income. So many ambitious parents realise that without extra tuition their children will find it difficult to stand out from other children. Driven by the pressure of the college entrance examination and the tough employment situation, parents are investing more in their children's education.

### ***5.4 High level skills mismatch in vocational education***

The cost of vocational education is generally higher than that of general undergraduate institutions. Studies by the World Bank show that the per-student cost of vocational institutions is 2.53 times higher than that of general education at the same level because of the higher cost of laboratory as well as the internship equipment and facilities. Although the government has increased funding for vocational institutions, it has failed to meet the development needs of vocational education at this stage. The lack of

synchronization between funding and the development of vocational education in China has led to the obsolete basic equipment and the lack of practical training and practice bases in most vocational schools, and even the tilting of enrolment to low cost majors in order to save the cost of running schools. The restructuring of vocational education cannot keep up with industrial transformation and upgrading and technological innovation, making students unable to apply what they have learnt and over-learning on useless and invalid knowledge. Consequently, the majority of the graduates from vocational school have not got the requisite qualifications for employment. Secondly, the training of talents needs a certain time cycle, and the emerging majors that meet the future industrial development trend are not laid out in advance.

## **6. Targeted measures to combat overeducation**

### ***6.1 National policy support and measures to safeguard***

The relevant government departments should optimise the structure of the school system in accordance with the current physical and mental development of students. Regulations should be formulated, and corresponding measures taken to ensure the implementation of the policy to reduce the burden so that the spirit of the Central Government can be truly implemented. Meanwhile, the education authorities should regularly supervise schools, strictly inspect teaching activities in primary and secondary schools in accordance with the syllabus and lesson time requirements of the teaching plan. And they should still provide guidance on the amount of homework to be assigned, and strictly investigate the behaviour of schools using after-school services to carry out normal teaching work in the name of after-school services.

Develop a multi-evaluation system for schools and teachers. The results of examination-based education should not be the only criterion for evaluating the quality of education of schools and teachers, so as to avoid adding to the burden of students because of the merits of schools or individuals for their own benefit. The government should continue to reform the content and methods of examinations. For instance, the questions reflecting students' comprehensive qualities can be included in the examinations, and interviews can be added to examine students in all aspects, avoiding the use of intellectual achievement alone to determine merit. Students should be judged by a combination of formative and summative assessments, so that one test does not determine a student's life.

Vigorously develop vocational education and give policy preference to it. Encourage students to apply by giving them preferential conditions thus widening the pathway to higher education and reducing the pressure of the college entrance examination. Besides, it is also necessary to improve the quality of teacher and teaching quality, by which students can study the advanced knowledge and skills required for the digital transformation of modern enterprises. More importantly, vocational education at undergraduate and postgraduate levels should be developed to open up the link between vocational education and higher education. For socio-economically disadvantaged recipients, the government can safeguard their educational interests through the principle of compensation for the allocation of educational resources, with the aim of achieving equity in education. The adjustment of salaries and wages in the primary and secondary labour markets and the focus on improving the social status of vocational personnel will change the public's prejudice against vocational education.

Promote university reform and optimise the layout structure of higher education. It is significant to minimise the potential negative impact of higher education expansion on the labour market by moderately expanding the scale of higher education. It is also necessary to make forward-looking adjustments to the education model in line with the latest needs of industrial development to form a market-oriented talent training mechanism, which improves the current situation of education mismatch in the labour market to make the supply of graduates match the social needs.

### ***6.2 Promoting diversity in employment and changing career values***

The public should be guided to develop a diversified concept of talent development and to change the current one-sided view of talent and selection mechanism under the influence of credentialism. Social recognition of workers will be enhanced through increased reporting of their achievements and the promotion of a non-utilitarian craftsmanship. Because a harmonious and diverse society needs both high-level creative talent and hard-working 'blue-collar' workers in positions where each profession receives public recognition, gains professional dignity and realises its own value. Employers should gradually break away from the shackles of credentialism, changing the emphasis from academic qualifications to competence by setting scientific hiring standards according to the needs of the job.

Give full play to the role of the mass media to publicise the latest educational policies issued by the

government and the new philosophy of education. Therefore, a correct public opinion is to be formed in the whole society by abandoning traditional stereotypes. Parents improve their own quality of education through actively accepting reeducation by the propaganda of the mass media, which help them get rid of the traditional deformed concept about education and provide useful guidance for their children's development.

Individuals should return to rationalising their employment expectations. Workers should improve their cognitive abilities when making educational choices. They do not have to blindly pursue high qualifications, but should learn to develop the competence and skills needed for the job. Parents should recognise that their children are independent individuals, not inheritors or practitioners of their parents' wishes. They should develop educational strategies that are best suited to their children's development, not blindly follow the crowd. By maintaining a calm state of mind, parents will lower excessive expectations of their children, and adopt scientific methods of communication with their children, instead of imposing excessive pressure on them to meet their own expectations.

### **6.3 Implementing quality education and “double reduction” policy, strengthening school-enterprise cooperation and home-school communication**

The school's philosophy should return to the essence of education and implement the concept of quality education as well as “double reduction” policy. School education should focus on improving the quality of the educated in all aspects, promoting the all-round development of students, and cultivating their innovative spirit and practical skills. Schools should implement the ‘double reduction’ policy to help students to explore their own favorite and potential in the learning process. Being given full play to their talents and their personal initiative, students can be a self-driven and self-disciplined learner because of intrinsic motivation not external pressures.

Schools should also provide sufficient resources for the all-round development of all students. The school's career management department should not only focus on the short-term employment rate of graduates, but also care for their long-term career development. In the lesson of career planning, the importance of matching education and career to an individual's future career must be emphasised in order to reduce the occurrence of educational mismatch. Schools can cooperate with enterprises to speed up the updating of educational knowledge and skills to provide opportunities for students to apply theoretical knowledge in practice which helps students gain an in-depth understanding of the operation mode and market demand of enterprises so as to reduce the occurrence of overeducation effectively. Schools should also strengthen communication with parents. Through home visiting, parent meetings and other activities, by teachers to parents to actively promote advanced educational concepts and methods, the formation of educational synergy to cultivate students achieve the best development.

At the same time, schools should change the evaluation mechanism for teachers. Teacher's merit cannot be determined solely by their student's achievement and the teachers who really put their hearts into education should stand out rather than the teachers who only care about students' grades to force the students to overlearn.

## **7. Conclusion**

Education is an important driving force in the development of society and civilisation and should be given top priority in long-term plans. The emergence of the phenomenon of overeducation marks a new turn of education in China, and it is only by successfully resolving the crisis of academic overload that we can enter a new phase in the development of education in China. This process requires the joint efforts from different terms--the government which needs to carry out top-level design for the new stage of education development, the society which is committed to positive-going value orientation, schools which should be de-utilitarianised and actively implement quality education and ‘double reduction’ policy, and individuals who is expected to establish the right values and focus on the process of their own development rather than the proof of having been educated.

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