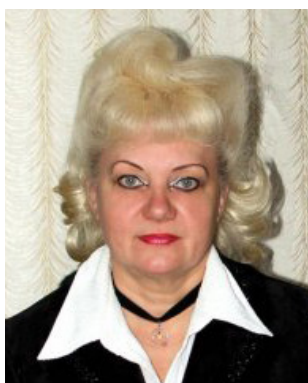


PEDAGOGICAL SUPPORT OF THE GIFTED: A CHINESE EXPERIENCE



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Genius is one per cent inspiration and ninety-nine per cent perspiration

The article deals with the analysis of gifted students' pedagogical support in the PRC, identifies the problems and outlines the ways to improve the work with the gifted.

Introduction. In modern times the problem of improving the education of gifted children is of particular relevance. Under the influence of changes in the economic, social and cultural spheres, the country (the PRC) is being focused on reforming both the secondary education system as a whole and the education of the gifted in particular. This is due to the global trends that are characteristic of the world educational sphere, where one of the key problems is the identification and pedagogical support of the gifted.

The problem of identifying and training creative youth is widely reflected in foreign pedagogy. The researchers J.S. Renzulli, S.M. Rees, J. Osborne and A. Tannenbaum focused their attention

on identifying the concept of "giftedness". D. Six, S. Benn and S.N. Kaplan were engaged in innovative approaches to the problem of selecting talented children. There are several points of view on the issue of searching for methods of teaching the gifted in foreign literature, that are reflected in the works of S. Wienerbrenner, J. Purcell, L. Smith and J. Delisle. Tao Xingzhi is considered to be the first educator in modern China to conduct experimental research on giftedness in education. Professor Shi Jiannong of the Institute of Psychology of the Chinese Academy of Sciences has worked out five criteria to define giftedness. From the above research data in China, the psychological structure of gifted children does not only contain excellent

intelligence and creativity, but also own good personality qualities.

An active search for the ways to improve the effectiveness of teaching the gifted in China requires deep analysis of the current practice, identification of shortcomings and modeling the promising areas of work taking into account world global trends.

Main part. Before starting the consideration of gifted children's pedagogical support, it would be reasonable to highlight the historical aspect of the problem in short. The education of gifted students in China, commonly known as supernormal education can be traced back to the Western Han Dynasty. The establishment of the imperial examination system, and the completeness of official schools created the necessary social conditions for the training and selection of the gifted. The Song Dynasty basically followed the Tang Dynasty's education system for gifted children and continued to enrich and improve it on the basis of the previous dynasties. In the Northern Song Dynasty, in addition to reading and chanting scriptures, the selection of prodigies generally used matching classes that supplied the antithesis to a given phrase, as a common method. In the Southern Song Dynasty martial arts were also tried. In the Ming Dynasty various preferential measures were formulated for the education of gifted children, including combined education, assessment and selection. Although the Qing Dynasty followed the imperial examination system of the previous dynasties, the education system for gifted children was not as complete as that in the Ming Dynasty. However, the education of gifted children was not interrupted and some gifted children and teenagers emerged.

In modern times, the education of gifted children in China has continued to develop but with new changes in content and methods. If the educational content of ancient gifted children is mainly about literacy, reading and chanting scriptures, poetry articles, couplets, etc., the main modern forms of teaching are children's subjects, prodigy test, family early education and the educational methods of advanced study, teaching according to the aptitude, special training, etc. Modern education for the gifted has not only inherited those contents, forms and methods in different degrees and periods, but also gradually try to apply knowledge in practical use adopting new teaching forms according to update scientific knowledge.

Contemporary education of the gifted began in 1978 with the establishment of the Juvenile Class of the University of Science and Technology in China, when the first batch of juvenile college students was recruited to officially promote education of the gifted. Afterwards China established a nationwide Supernormal Children

Tracking Research Collaborative Group, which was affiliated with the University of Science and Technology of China and some local academic institutions for the education of gifted children were also established one after another. From the establishment and work of these professional institutions, the current situation of the education of gifted children in China was on the rise. Since 1985, 13 colleges and universities including Peking University and Tsinghua University have added juvenile classes. For a long time since then, supernormal education has developed vigorously, and corresponding research institutions have been established one after another. The new "Compulsory Education Law" in 1995 stipulated that schools had to use examinations and tests to select students. Since then, supernormal education has entered a low period and some local governments have suspended the operation of its classes. It was not until 2003 that it ushered in new development again, and the society that stopped working began to operate in 2004. In 2010 the state promulgated the medium and long-term education plan, proposed "cultivating innovative talents" and "talent medium and long-term planning" and set up the project of the development of innovative talents.

In recent years, the experiment of the education of gifted children in China has entered a new stage. The concept of education for gifted children has been broadened from the original science juvenile class to various types such as liberal arts, art, and sports. They can be classified into zero-classes (i.e. general education, without the digital code of the department), mixed classes, basic intensive classes, continuous classes (such as junior high school, straight high school and undergraduate-master-doctoral students), as well as the classification according to age, major and different properties. In short, various experimental classes at universities, in middle schools, primary schools, and kindergartens have quietly emerged and their influence has become more and more extensive and the scale has become larger and larger.

Chinese domestic scholars have achieved some important results in the study of supernormal children and have shown some new progress and trends. In recent years the studies on the diagnosis and evaluation of supernormal children combined with psychological research methods have gradually appeared. Jiang Minmin and Zhang Jijia reviewed the research progress of foreign gifted children from the aspects of identification methods, characteristics and interventions. Xu Zhening compared the collection of gifted children through the screening method and the three-factor mixed experiment method and proposed a strategy. Hu Yu used the Thinking

Style Scale and the YG Personality Test to test 91 go-above teenagers with Dan's rank. Zhang Bo conducted a comparative experiment on 131 gifted children and 163 ordinary children through the Wechsler Children's Intelligence Test Scale and the pushing box task and investigated the differences in the development of problem-solving abilities between extraordinary children and ordinary children from the three dimensions of cognitive ability, metacognitive ability and cognitive efficiency [1, p. 1823–1834]. The above research shows that scholars in China have gradually moved away from the diagnose factor of IQ as a general concept, that has greatly promoted the progress of the identification and evaluation of gifted children.

During the last ten years the research methods on gifted children have become increasingly diverse. The research content has become more systematic and focused and the research objects have become more extensive. For example, Dai used the grounded theory research methods to study 34 gifted students in the juvenile class who had graduated, discovering several themes in their careers and then proposed Cope- and-Grow model. That study also linked the Cope-and-Grow model with existing empirical research and theory, and discussed curriculum, curriculum adjustment, and counseling [2, p. 75–90]. Zou Pei used experimental intervention to study the effect of structured game therapy on gifted children [3, p. 27–31]. In recent years the research content has become more focused on the cognitive processes and self-concept of gifted children. For example, Xin Ziqiang found that the excellence of mathematics students compared with ordinary students and underachievers reflected the advantages in cognitive processes (such as processing speed, working memory, problem representation, metacognition) and structural knowledge [4, p. 86–91]. Cheng Li used the experimental method of information processing to study the effect of different educational methods on the information processing speed of high-intelligence children [5, p. 3–9]. Li Yuqiu analyzed the performance of gifted children on the Wechsler Children's Intelligence Scale. Xu Zhening investigated three cognitive activities of counting, number conservation and set, comparing the gifted children with ordinary ones. Su Xueyun found that IQ had a significant impact on the development of self-concept of gifted children [6, p. 1248–1250]. Luo Rufan measured the self-concept of gifted children and ordinary children of the same age. Cheng Li and Wang Fei found that the non-academic self-concept of urban gifted children was significantly higher than that of floating gifted children [7, p. 36–42]. The research object is no longer just the simple gifted children. Some scholars have

begun to pay attention to the dual needs of gifted children. Wang Bo and Xing Tongyuan analyzed the research progress of foreign children with dual special needs. Jiang Minmin, Zhang Jijia reviewed the research progress of abnormal children with learning disabilities. Qi Yuefeng resented the life and expectations of a mentally handicapped child in the form of social reporting in the article "The Expectation and Reality of Chinese Rain Man" [8, p. 50–52]. He Kan interpreted the education of disabled children from the perspective of multiple intelligence theory that required new concepts and strategies [9, p. 14–18]. Liu Wen, Deng Chenxi reviewed the research progress of children with abnormal attention to deficit hyperactivity disorder at home and abroad from the aspects of traits, identification and intervention [10, p. 53–56]. Cheng Li and Zhu Huali proposed that the combination of comprehensive diagnosis and procedural intervention methods in recent years would be a new trend of double identification of children with special needs [5, p. 3–9].

The study of scientific literature has shown that the education of gifted children in China has mainly the following models.

1. Acceleration – elasticity upgrade. In 1978 Deng Xiaoping, the chief architect of Chinese reforms delivered a speech at the opening ceremony of the National Science and Technology Conference, "It is necessary to break the routine to discover, select and cultivate outstanding talents. Quickly produce talents and produce good talents". It is against this background that the Youth Class of the University of Science and Technology of China was born and began to recruit students and an accelerated education centered on cultivating outstanding talents.

The accelerated education model is also called the flexible upgrade model, that is based on the students' own abilities and provides flexible and adaptive education across grade limits. Mainly there are the following forms: early school admission for the identified gifted children, they are allowed to enter school earlier than the regular school age, including primary school, middle school and university.

Grab skipping: Through the assessment gifted children are allowed to skip grades or transfer classes. For those particularly outstanding children, who have completed all the courses of several grades of primary or secondary schools through self-study and pass the examination, there is permission to skip grades and directly insert into the learning of the upper grades.

Extra-class learning: gifted children are not limited by the ordinary courses and teaching progress of the class and they learn moderate courses according to their learning ability.

Shortening the schooling system: gifted children finish classes earlier than the normal schooling

system. For example, the 4+4 schooling system of the experimental class of primary and secondary schools, that is, primary school and secondary school study for 4 years respectively and enter university at the age of 14–15. The most typical is the 4+2+2 academic system of the junior college class, that is, 4 years of university, 2 years of master's degree, and 2 years of doctoral degree.

The main characteristics of accelerated education are fast speed and deep curriculum. The high speed is mainly manifested in that it can shorten the years of schooling for gifted children, save education funds, and enable them to produce the gifted early and quickly; its limitations are: it causes the knowledge gap of gifted children, the foundation is not solid, and they have to plan for the future prematurely. Their Social affective adaptation is unhealthy. The depth of the curriculum is mainly manifested in providing learning challenges for gifted children and enhancing their learning motivation; its limitations lie in heavy academic pressure, heavy schoolwork, and hindering the development of other interests of gifted children.

2. Enriched education. The enrichment educational model, also known as the deepening educational model, allows gifted children to stay in ordinary classes, to study with children of the same age. It mainly takes the following forms: ① intensive learning in the regular classroom. It is necessary to give special treatment for the gifted children in the traditional classroom teaching, who have special advantages or specialties in a certain subject, and the teacher will provide them with special learning materials or opportunities and secure individual guidance to make them learn more in the classroom teaching, but students are still studying in regular classes. ② Extraction education: it takes the part of the study time every week (for example, 1 day a week) to let the gifted children leave their own classes, and carry out activities with their peers at the same level of intelligence to expand knowledge.

3. Extracurricular enrichment education: the school or relevant social aspects provide various extracurricular broadening, deepening and improving activities with rich content and various forms according to the needs of different types of extraordinary children. For example, all kinds of gifted children can take advantage of extracurricular activities to participate in various interest groups and they can also participate in enrichment activities in special learning centers on weekends or vacations, including resource classrooms, clubs, technology activity centers, summer camps and winter camps.

The most significant feature of enrichment education is that the gifted children do not leave the class of children of the same age and they have at least partial time to study with the peer, that can prevent the gifted children from having social adaptation

problems so as to serve them more. Moshe Zeidner and Esther Jane Schleyer conducted a comparative study of more than 1,700 Israeli children with supernormal intelligence in accelerated education and enrichment education conditions respectively, and found that the latter showed more positive self-concept, higher subjective well-being and lower test anxiety.

The results show that enrichment education is more conducive to promoting the emotional and social development of gifted children. From the perspective of the possibility of widespread popularization and the promotion of the emotional and social development of extraordinary children, the enrichment education model needs to be paid more attention and promotion. However, this model places great demands on teachers, requiring teachers to be knowledgeable and at least proficient in their professional fields in order to effectively guide gifted children to expand and deepen their studies in the professional scope.

Although the above-mentioned educational models for gifted children have achieved fruitful results, there are still some problems.

1. Utilization of the education of the gifted. Influenced by the existing “exam-oriented-advancement” educational system in China, many schools and institutions that carry out education for gifted children still pursue the students' test-taking scores and enrollment rate, that can easily turn the education of gifted children into the exam-oriented education, that makes all teaching activities for the gifted children serve for the college entrance examination. Typically, the purpose of the education of the gifted in middle schools is to send them to universities and the purpose of college juvenile classes is to get a master's degree, a doctor's degree and to study abroad. Under the domination of this idea, the education of the gifted focuses only on the development of gifted children's intelligence, while ignoring the cultivation of their creativity, emotional intelligence and social communication ability, that causes some gifted children cannot adapt well to the fiercely competitive society and cannot cope with the challenges of society to diverse talents.

2. Single training model. Presently, China's training mode for the gifted children is basically limited to accelerated education. The most common application is to teach gifted children with a shortened schooling period. The most typical one is the Junior Class of China University of Science and Technology, that shortens the production cycle of talents and saves educational resources. However, this kind of special class requires specialized curriculum design, teaching material design and high-level teaching staff and it is difficult for ordinary schools to meet these conditions. Therefore, this

educational model for the gifted children lacks the possibility of widespread popularization. In addition, the study period of the gifted children is artificially shortened, while the environment is complex and the academic pressure is high, which will not be conducive to the development of supernormal children's comprehensive quality.

3. The unbalanced development of urban and rural education of the gifted. China is a big agricultural country and the rural population accounts for about 56% of the national population. Theoretically speaking, the gifted children in rural areas should account for more than half of the national abnormal children. Regrettably Chinese rural education of the gifted is still almost blank. It is mostly concentrated in cities, while the vast majority of rural gifted children have not been found or received appropriate education, resulting in an extremely unbalanced development of urban and rural education of the gifted.

Taking into account the global trends of teaching the gifted the following countermeasures can be taken to overcome the shortcomings in Chinese practice.

1. To formulate laws and regulations for the education of the gifted. In order to strengthen the education and training of the gifted children in China, it is necessary to rely on laws and regulations to guarantee them. Different countries have different levels of support for this kind of education. Some countries have passed legislation to support the education from the perspective of superstructure. For example, the United States passed the Education Law for Gifted Children in 1978 and the Extraordinary Education Law promulgated by the Korean government came into effect in 2002, that legally clarified the status of the education of the gifted and regulated the content of the system, training objectives, educational model, school-running funds and teaching staff to provide a strong legal guarantee for the development of the education of the gifted. However, China has not yet formulated the law on the education of the gifted that leads directly to the problems in school running funds, training objectives, education model, and teaching staff. As a result, the vast majority of the gifted children have not obtained their personally appropriate special education services.

2. To broaden the training objectives of gifted children education. Innovation is the eternal theme of the development and progress of human society. In the 21st century the economic tide based on knowledge is coming rapidly. This kind of economy with modern science and technology as the core has put forward higher requirements for talents. The country that has the talent advantage in the 21st century will occupy the commanding heights of competition. Therefore, the training objectives

of gifted children education should be broadened, from the training of knowledge-based talents to the training of intelligent and creative talents. The goal of gifted children education is not only to develop gifted children's intelligence, but what is more important is to cultivate their non-intellectual factors and pay attention to the cultivation of their emotional intelligence and social adaptability. It is necessary to attach importance to the display of the subjectivity of the gifted children, cultivate their independent consciousness and normal mentality and base their achievement consciousness and creative ability on the individual's subject personality, so that they can stand on a competitive society and be able to cope with the society. The challenge to the diverse talents makes the supernormal children become social elites with sound personality through appropriate education.

3. To change a single education model of the gifted and use multiple models comprehensively. The mainstream of gifted children education in China for more than 30 years has been an accelerated one. It is precisely because of the one-sided fastness embodied by accelerated education that the education of the gifted deviates from the general direction of promoting the free, comprehensive and harmonious development of the gifted children. For this reason, double gifted education advocates the coordination of accelerated education and an enriched one, highlights the importance of the physical and mental health of the gifted. Extensive educational practice for the gifted children abroad shows that this model has the possibility of widespread popularization, it is conducive to the social development of the gifted and can avoid the one-sidedness of children's knowledge or skills. Therefore, China should change the single model of the gifted children education, adapt measures to local conditions, teach students in accordance with their aptitude and comprehensively use multiple models of the education of the gifted.

4. To develop distance teaching to promote the coordinated development of urban and rural education of the gifted. Distance training can break through the limitation of time and space, the limitation of students' age and students can choose appropriate courses according to their abilities. The development of distance education is a feasible step that can be inspired by South Korea where the Internet education system of the gifted shows good results.

Conclusion. Thanks to borrowings from the foreign countries' experience, the Chinese educational system of the gifted has also achieved certain results, forming a model with Chinese characteristics such as: an accelerated educational model, an enriched educational model. However, for historical reasons, the Chinese education of the

gifted has not yet achieved long-term sustainable development. In the pedagogical support of the gifted there are still some problems to be solved. They are connected with utilitarianism, a single training model, the unbalanced development of urban and rural education of the gifted. In response to these problems, some countermeasures should be taken: it is necessary to formulate laws and regulations for the education of gifted children; to broaden the training objectives of this type of education; to change a single gifted children education model and use multiple models comprehensively; to develop distance teaching to promote the coordinated development of urban and rural education of the gifted. The educational program of the gifted in China has a long way to go. China still needs to continue to explore and practice to find out the methods and strategies for the development of the gifted with Chinese characteristics.

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