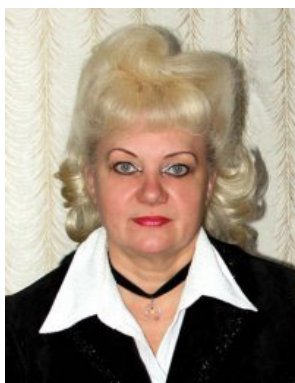

CONCEPT OF GIFTEDNESS IN SCIENTIFIC LITERATURE



Teterina Vera Vladimirovna,
*Department of Pedagogy
and Educational Management
Vitebsk State P.M. Masherov University,
Candidate of Pedagogical Sciences
Associate Professor*



Liu Yun Yun,
*Master's student
Vitebsk State P.M. Masherov University*

A gifted person is like a bright star requiring special attention

The article deals with a detailed analysis of the historical and modern aspects of the concept of giftedness. The conceptualization of the scientific approaches will contribute to the improvement of the Chinese theory and practice of working with the gifted.

Introduction. Children's giftedness is still in the focus of scientific research. The interest to the problem of identification and teaching of the gifted is explained by the fact that there is the category of children that determines the future of any country.

The problem of identifying and training creative youth was widely reflected in foreign pedagogy. J.S. Renzulli, S.M. Rees, J. Osborne and A. Tennenbaum focused their attention on the identification of the concept of "giftedness". D. Six, S. Benn and S.N. Kaplan were engaged in working out innovative approaches to the selection of talented children. The search for the new methods of teaching gifted students was found in the works of S. Wienerbrenner, J. Purcell, L. Smith and J. Delisle. The Russian authors such as B.M. Teplov, S.L. Rubinshtein, T.Y. Shlykova and E.A. Yarosh, presented the classification of the concept of "giftedness". The ways of selecting gifted children

were considered in the works by N.V. Bushnoy, V.T. Kabush, I.A. Karpyuk and N.N. Wallet. The system of teaching capable students was studied by M.F. Lozben, K.N. Margolin, T.I. Shamova and P.I. Tretyakov.

However, the theoretical and methodological aspects of this problem remain highly debatable. Familiarization with the theoretical and practical results in the field of the concept of children's giftedness can contribute to the successful solution of this problem in the PRC.

Main part. The concept of "giftedness" has existed in China and the West since the ancient times. The term of "giftedness" appeared in the 16th century, it originally referred to a great artist, especially the greatness of the artist himself, rather than his outstanding ability. However, after the publication of the British ethnologist Francis Galton's "*Hereditary Giftedness*", the word of "giftedness" has the meaning of innate talent in addition

to describing people who are brilliant and intelligent. This concept continues to be used today.

As for the discussion of giftedness, Western aesthetics has a profound history.

In ancient Greece, many scholars associated divine assistance with giftedness. The great philosopher Socrates said: "Poets do not write poetry out of wisdom, but their works are inspired by God, such as witches and prophets who often make clever words without knowing what they mean. I think the poet feels the same way". His student Plato inherited this view. He considered giftedness to be "inspired and possessed by divine power" [1, p. 8].

Afterwards, Quintus Horatius Flaccus, Longinus, Edward Young, etc. are all representatives of emphasizing giftedness.

In ancient Rome, Quintus Horatius Flaccus also had a discussion on giftedness, and he emphasized the combination of acquired hard training and giftedness. He said: "if hard study without abundant giftedness, giftedness enough without training, then they are all useless; both hard study and giftedness should be used and combined with each other". According to Longinus, he emphasized the uniqueness and freedom of giftedness. It was said, "Giftedness is innate and cannot be taught, and giftedness is the only technique that can produce sublime skills". He also said that "if the works of the gifted are brought to rigid discipline, it is a kind of gross vulgarity's wicked line". Essentially, giftedness at this time referred to inspiration in art.

By the time of the German Enlightenment, the Wolf School believed that giftedness was equated with innate qualities. While Baumgarten, the father of aesthetics, believed that giftedness was an "innate" endowment. Then Herder believed that "giftedness is the highest god-given spirit, which acts according to the laws of nature, is consistent with the nature of the individual, and is beneficial to human beings. Giftedness is an innate ability, derived from a transcendental principle to the human spirit".

During mid to late 18th century, in the voice of opposition to classicism, giftedness was emphasized on the meaning of "originality". In 1759, Edward Young published the article "*Conjectures on Original Composition*", which set off a boom in the German literary and art circles. Young thought, "the so-called giftedness has the same meaning of the power to accomplish great achievements without the means that generally considered necessary to achieve a certain end. The gifted are different from those smart people, just as magicians are different from excellent architects, who rely on secrets means to build a house, while magicians use ordinary tools through clever trick. Therefore, people always think that there's something divine about giftedness. No one can be great without divine inspiration".

Otto Weininger discussed talent and giftedness in his book "*Geschlecht und Charakter*". Weininger

defined giftedness as: "Giftedness, like originality and individuality, manifests itself as an all-round productivity". He believed that talent only expressed a certain specialty, which was incomparable to the comprehensiveness of the gifted. Weininger believed that the characteristics of giftedness included the richness of complexity, "giftedness is those kinds of person whose endowments are more complex, richer, and more varied, and the more people can be accommodated in a person's personality, the closer they are to giftedness". The gifted are better at understanding what people is, creating profound characters and showing different sides. Weininger believed that the gifted had a stronger understanding and were more open to things, so the brain of the gifted was more sensitive in perceiving things. Giftedness is also reflected in comprehensiveness, with infinite knowledge but "not including knowledge of various theories and ideological systems that science has deduced from facts". So, Weininger's idea of giftedness is the ability to be creative.

Those doctrines had a huge influence on Immanuel Kant's theory of giftedness. Kant was the first person in the history of Western aesthetics to discuss the concept of "giftedness" systematically. Kant theorized the concept of giftedness on the basis of the research on the concept of giftedness under the theory of Baumgarten, Herder, Younger and others. In "*Critique of Judgment*", Kant gave a clear definition of giftedness: "Giftedness is that innate ability, which makes regulations for art, and since innate ability, as the artist's innate manufacturing function, giftedness itself belongs to nature. One can then say this: giftedness is the innate endowment of the mind, through which the laws of art are naturally made".

Hegel enriched Kant's theory of giftedness. Hegel had a more detailed and in-depth exposition of the theory of giftedness in the first volume of his *Philosophy of Fine Arts*. He put the theory of giftedness into the scope of the artist, thinking that giftedness first came from imagination, then inspiration and originality. He believed that imagination was the most outstanding ability of an artist, and imagination was creative. He analyzed three important conditions for imagination. At first, the artist must have the talent and sensitivity to grasp reality and its image, and must have encyclopedic knowledge. He should see a lot, hear a lot, and remember a lot. Secondly, it also requires the artist to have a clear understanding, a broad mind, an invigorating emotion and to have the ability to concentrate; thirdly, the artist must have rich life experience. Hegel defined giftedness as the creative activity of the artist through the imagination, inwardly transforming the absolute idea into a realistic image. He believed that giftedness can reach the true maturity of art only in old age.

In ancient China, giftedness was called "prodigy". Chinese psychologists put forward the concept of "supernormal child" to call giftedness in the late 1970s, while some other scholars used for it the words

giftedness and talents. The term “supernormal child” was the most commonly used term for giftedness in Chinese education circles over the years.

China had a late start to education of gifted and talented. In ancient China, although the concept of “giftedness” had not been specifically discussed, there had been many thoughts on this aspect. In the Spring and Autumn Period, Confucius already had the saying of “one who is born to know”.

In the late Qing Dynasty, Mr. Wang Guowei, a famous scholar in China, had a thorough understanding of Western civilization and the sages’ thoughts. His giftedness theory was an important part of Wang Guowei’s aesthetic thought. In the field of Chinese aesthetics in the 20th century, Wang Guowei was the only aesthetician who comprehensively and accurately discussed the aesthetic topic of “giftedness”. His “giftedness theory” was obviously influenced by Kant’s “giftedness” thought. Wang Guowei believed that “giftedness” was the personality representation, owing aesthetic power and artistic modeling skills, that was to say, “giftedness” was a person with appreciation and artistic creativity. Wang Guowei also believed that the gifted were those who suffered in soul. He pointed out: “the gifted gets God’s mercy while he is misfortune as man”. Wang Guowei believed that there were many talented people in history, but very few could be called the gifted. He said: “The gifted come out every few decades, or every few hundred years, and they must be aided by knowledge, handsome for virtue, and only then can they be truly great scholars”.

Tao Xingzhi is considered to be the first educator in modern China to conduct experimental research on giftedness in education. He attaches great importance to people’s innate nature and emphasizes the important role of talent. He believes that a gifted child is a person who is born with wisdom, talent, and a special talent in a certain area. A person’s innate disposition plays a decisive role, and the role of education is relative. Tao Xingzhi said, “Giftedness is the basis for learning. Do as much knowledge as you have talent. When obtaining academic achievements, 80–90% of them are due to genius, and 10–20% are due to education. It is to deceive himself when to say that education is omnipotent” [2, p. 109].

Guo Moruo is one of the most influential romantic writers in the history of modern Chinese literature. Guo Moruo acquires great achievement in literature, history, archaeology, philology etc., and he himself is called “spherical giftedness” [3, p. 24–28]. In fact, Guo Moruo can be regarded as a gifted person from a Chinese perspective or by Western standards, even according to his own definition of giftedness: “anyone who has made important contributions to the development of human society, history and culture, and is well recognized as great historical figure by ordinary people” [4, p. 27–31]. Guo Moruo believes that giftedness is the result of the combined efforts of innate and acquired.

Zha Zixiu, one of the earliest experts in China to conduct research on supernormal children. For the concept of giftedness, there is also a special exposition of “outstanding intellectual development, or a special talent in a certain area, called supernormal children” [5, p. 23–29].

The education of gifted children in the United States also developed rapidly. It was due to the ever-changing science and technology in the United States. The American education was popularized to a relatively high level; the duration of compulsory education was gradually prolonged; and the proportion of the number of people receiving higher education in the total population was also increasing. All those facts made it possible for the United States to improve the quality of education, vigorously develop the education for the gifted on the basis of universal education” [6, p. 59]. The definition of giftedness in the United States also underwent a long history.

In 1972, the first federal definition of gifted children appeared in the report from the State of Maryland (the USA), which stipulated that gifted children should include the following aspects: (1) general intelligence; (2) special learning ability; (3) creative thinking; (4) leadership; (5) visual and performance arts. It was said that as long as they had one or more of the above-mentioned talents and have outstanding performance, children should be called the gifted. In 1978, the definition of Maryland, amended by the United States Congress, was as following, “gifted children are those children or young people who have revealed potential abilities, no matter at which stage of preschool, primary school, or secondary school. They are proven to be highly competent in intellectual, creative activities, have specific academic and leadership skills, succeed in performing and visual arts, that in its turn requires extraordinary education and practice”.

In the early 1980s, A.T. Tannenbaum proposed the psychosocial definition of gifted children, arguing that giftedness is an outstanding achievement resulting from the interaction of the following five factors: (1) general ability (ie g factor, or measured general intelligence); (2) special abilities (including special aptitudes and special talents); (3) non-intellectual factors (such as self-strength, dedication, willingness to sacrifice, etc.); (4) environmental factors (providing environment of motivation and support, such as family, school and community); (5) opportunity factors (unpredictable opportunities, etc.).

The psychologist and the researcher of the gifted at Claremont Pitzer College in California, Robert. S. Albert analyzed the view of Galton and Freud and came to the conclusion that giftedness could be regarded as the combination of a high degree of general ability combined with a continuous, energetic, and highly personal effort. The high degree of general ability and continuous personal motivation are the qualities that produce creative

behavior in giftedness-level. "The gifted is anyone who: ... is able to carry out a large body of research over a long period of time that has had a significant impact on many people over many years".

The definition of gifted children in the United States was revised in 1991, following the development of new cognitive research and concerns about the unfair treatment of gifted children when they participated in programs for which they were set. In the book titled "*National Excellence: A case for Developing America's Talent*", the term "talent" was removed from the concept of giftedness and the terms of outstanding talent and special talent were added. The definition stated that giftedness could appear in various cultures, and it did not necessarily manifest itself in the form of test scores, but rather in areas such as intelligence, creativity, and art at a higher level. Giftedness contained the following meaning: "it is a mature power, not a developing ability". Talent can be identified on the basis of student's performance in a rich and varied educational environment. The best way to spot giftedness is to "offer an opportunity to observe their performance".

The federal government's new definition of "giftedness" is: "children and youth of exceptional talent who demonstrate high achievement or the potential for greater achievement than their peers with the same experience and in the same environment. These children and youth demonstrate their intellectual, creative or artistic excellence, and have unusual leadership skills. They have expertise in specific academic areas. They need an education that is different from the services and organizational activities that schools can provide on a daily basis".

In 1996, Pirto restudied the definition of gifted children under the influence of the concept of the development of the gifted. He studied the gifted children from two viewpoints: namely from the general operational one and the special operational one. The general operational sphere includes mathematics, art, philosophy, sociology, law, religion, language, music, etc., while special operational sphere contains astronomy, comics, statistics, music composition, architecture, urban planning, meteorology, marketing, etc. After extensive research, Pirto defined the gifted as "an individual with the following characteristics of learning: extraordinary memory, observation, curiosity, creativity, who can quickly and accurately learn all kinds of problems related to their studies with a minimum of contact and repetition. Such individuals are entitled to an education tailored to their characteristics".

In 1996, Meck integrated the three main components of the definition of the gifted: high intelligence, high creativity and excellent problem-solving skills. She summarizes the characteristics of a gifted child as: "He is a problem solver; he likes to be challenged with complex problems and will persevere until the problem is satisfactorily solved. Such an individual can: (1) give an existing problem

the next or multiple clearer new definitions; (2) find new and more effective methods; (3) adopt different and more efficient methods than previous methods".

Pirto and Meck's definitions provide a new perspective on understanding intelligence and giftedness, which is fundamentally different from the previous definition of gifted children based on intelligence factors, expanding the understanding of the concept of the gifted and reducing to overemphasis IQ scores. Their studies not only focus on specific circumstances and personality characteristics, but also emphasize the importance of special talents.

Françoys Gagné showed that giftedness referred to the possession or use of untrained spontaneously demonstrated innate abilities in at least one area of competence, the level of which is in the top 10% of peers.

The state of Oklahoma defines the gifted and talented children as those who has demonstrated the potential of high performance capability and need to be provided with personalized or accelerated education and serving pre-school and elementary to those students who are in the top 3% of any national standard intelligence test, or in one or more aspects is outstanding student of intelligence, creative thinking, leadership, visual performance and specific academic ability [7, p. 5].

Among so many definitions about giftedness, the definitions given by the U.S. General Administration of Education and Joseph S. Renzulli's *Three-Ring Conception of Giftedness* and the comprehensive talent definition by C.W. Taylor are the most representative and influential now.

The U.S. General Administration of Education defines gifted children as: "A person who is shown to have some kind of outstanding or intellectual, creative, or other potential and for whom special education and activities beyond the normal teaching of the school are required". These people have generally been obtained achievements or potential abilities in any one or more of the following areas: (1) general intellectual ability; (2) special academic aptitude; (3) creative or productive thinking; (4) leadership ability; (5) visual and performing arts; (6) psychomotor ability.

American scholar Joseph S. Renzulli believes that gifted children are mainly the result of the interaction and high development of three psychological qualities (*Three-Ring Conception of Giftedness*): "(1) above average ability; (2) task commitment; (3) creativity. He believes that gifted children are those who have or can develop these compound abilities, and can use these abilities to excel in any area of potential value. In order to make the three characteristics to interact well, gifted children need a variety of educational opportunities that are different from ordinary programs of instruction" [8, p. 11].

Both definitions above are widely accepted. In particular, Marland's definition has been adopted

by most states either directly or with minor modifications. Cassidy and Hossler published an article in 1992 and it was pointed that “in the past 20 years, 30 states in the United States have not made changes to this definition, and only 15 states have made revisions in the past 5 years”.

Psychologist C.W. Taylor has a vague definition of giftedness and talent. He believes that almost every student is gifted and talented. Taylor’s idea is simple: almost every student in a class is exceptional in some skill, ability, or knowledge. If conventional learning ability is used as the criterion for identifying giftedness, only the top 5% of students can enter the gifted education program, and if creativity is taken into account, then such 5% belong to other students. As a result, people can’t help but wonder that, according to Taylor’s point of view, almost all children are gifted children. At the same time, he provides a solid theoretical foundation for the educational thought of “teaching students according to their aptitude” in modern education.

At present, the Nation Association for Gifted Children of the United States (NAGC) still uses the definition of the U.S.A General Administration of Education, that defines a gifted child as “someone who shows, or has the potential for showing an exceptional level of performance in one or more areas of expression” [9].

Stankowski categorizes various definitions of giftedness. He believes that all definitions can be described from the following dimensions: the first type is the definition based on fact, emphasizing that outstanding performance in a certain occupation is regarded as the standard of giftedness; the second type is the definition of IQ. Tolman examined *The Stanford-Binet test*, identified children with IQs above 140 as giftedness; the third category is the definition of special talent only in a certain area, such as art, music, mathematics, natural sciences, etc. Special talents beyond ordinary people can be called giftedness. The fourth category is the percentage definition, which defines a fixed proportion of the number of gifted determined by the school (or district). The fifth category is the definition of creativity, emphasizing that it means to have creative excellence as the primary criterion for giftedness.

The definition of genius provides the basis for the identification of genius. With the support of these definitions, many educational scholars have summarized the identification standards and operation methods of many gifted children. The number of these standards and methods is very large, and the following selections are only widely used.

In order to make the implementation of gifted children education more targeted and effective, from 1921 to 1923, Terman used the Stanford Binet test to identify gifted children. He was the first to use intelligence tests to identify gifted children and set an IQ of 140 or more as the critical line for gifted

children. This method of identifying gifted children based on IQ has created a new era in the identification of gifted children, and it is still the most mainstream method for identifying gifted children, with far-reaching influence. As early as the 1940s, there were some research authors who pointed out that using IQ tests alone to identify and describe gifted children had limitations. However, their differing propositions opened up the situation where diversity was defined.

In 1950 Guilford J.P. drew teachers’ attention to the following child’s behaviors: (1) intense curiosity; (2) unusual work perseverance; (3) patient enough with repetitive and mechanical work; (4) unique work performance; (5) vivid imagination.

In 1971, Jarwan and Torrence proposed the teachers to nominate the gifted children in the following way: (1) the most popular students; (2) the leadership students; (3) the students with the most creative intentions; (4) the students with strong learning motivation; (5) the students with the most scientific orientation; (6) the students with the best academic performance.

Gardner (1977) pointed out several characteristics of gifted children, that can be used by teachers as a reference when observing children: (1) demonstrate originality or high technical level; (2) acquire knowledge easily and quickly, have strong curiosity; (3) have versatile performance; (4) have development in height, weight, health and physical fitness; (5) can use many words correctly and early; (6) hear and see information, remember it easily; (7) show keen observation and quick response; (8) demonstrate ability to solve highly abstract problems; (9) have the ability to learn reading easily; (10) comprehension and application in subjects that require language; (11) excellent social and emotional adaptability.

American scholar Katz believed that the following standards should be used to measure gifted children: (1) mastery of vocabulary and correct use; (2) generalization ability; (3) strong abstract thinking ability; (4) perceptive in seeing problems; (5) strong reasoning ability; (6) quick to answer questions; (7) efficient in learning; (8) ability to overcome difficulties; (9) strong memory; (10) accurate inferences; (11) have a sense of humor; (12) strong curiosity; (13) keen observation; (14) initiative; (15) creativity; (16) strong critical ability; (17) willingness to serve others.

The triarchic intelligence model was proposed by R.J. Sternberg in 1985. Intellectual behavior includes the following three components: (1) practical intelligence: knowing how to get along with the environment, to adapt, to choose, and shape the environment, what we usually call “common sense” ability; (2) the ability to create new products, that usually occur after a person has learnt something and became proficient in automated operations; (3) metacognitive ability: the ability to monitor internal thought processes. Sternberg’s successful intelligence

model opened up new ideas for later American scholars to define gifted children, making the definition of gifted children more scientific and reasonable. Sternberg also put forward the “Pentagon Implicit Theory” for “giftedness”, stating that there are five necessary criteria for giftedness: (1) excellence; (2) rarity; (3) productivity; (4) demonstrability; (5) value.

There are more ways to identify giftedness. The selection methods of American giftedness are more flexible, including standardized tests, a group selection, and an informal selection. It mainly includes an achievement test, an intelligence test, an innovation ability test, a professional aptitude test, etc. The most commonly used method to identify the gifted children is an intelligence test. It is divided into a group intelligence test and an individual intelligence test. Individual intelligence tests are mainly based on the measurement methods of “Wechsler Intelligence Scale for Children and Stanford Binet Intelligence Scale”; group tests are usually based on “Cognitive Ability Tests”. According to different candidates, the group selection methods are mainly divided into self-selection, teacher-selection, parent-selection and peer-selections.

In China, Professor Shi Jiannong of the Institute of Psychology of the Chinese Academy of Sciences uses five criteria to define giftedness: “academic record is two standard deviations above average; performance is better than the group level of people two years older than him; IQ is above 130; performance exceeds 95% of his peers; have very special talents” [10, p. 54–55]. In his research horizon, children who meet such criteria constitute about 2,25% of the population.

From the above research data in China and foreign countries, the psychological structure of gifted children not only contain excellent intelligence and creativity, but also own good personality qualities. Non-intellectual personality traits are an important part of psychology of gifted children. Research in modern psychology shows that personality qualities differ from each other, so we should implement different educational methods for students with different giftedness. And gifted students are much higher in intelligence and creativity than ordinary students and will have more potential for academic development. If the individual differences of giftedness are ignored, and all students are given the same educational method or all children are required to have a synchronous development level, it will have a great impact on the psychology and physiology of the gifted and even harm them. Therefore, the diagnosis and identification of geniuses not only respects the individual differences of gifted children, but also maximizes the potential of students. When we select the gifted, we should not only focus on intelligence and creativity, but also examine non-intelligence personality characteristics. Likewise, in the process of gifted education, we should not only pay attention to the development of their

intelligence and creativity, but also cultivate their good non-intellectual personality qualities.

Conclusion. The analysis of the scientific literature allowed us to draw the following conclusions. Giftedness can be defined as people who are identified and diagnosed by relevant institutions and have clearly exceeded the development level of the normal population of the same age in the areas such as intelligence, creativity, leadership, etc. The term of giftedness appeared as early as the 16th century. The theoretical research on the concept of giftedness in China started relatively late. At present, there is no unified definition of giftedness in modern science. The most common definitions are the following. The 1st one is based on the fact, emphasizing that outstanding performance. The 2nd one is the definition of IQ. The 3rd one is the definition of a special talent. The 4th one is the percentage definition and the 5th one is the definition of creativity. Various methods and approaches are used to identify and diagnose the gifted, such as a teacher nomination, an intelligence test, an achievement test, a creativity test, a special ability test, an aptitude test, a personality test, a parent nomination or classmate nominations, interviews, individualized work evaluations etc. These methods provide the basis for scientific identification and diagnosis of giftedness. The presented theoretical approaches to the concept of giftedness, to the system of selection and training of the gifted can serve as a basis for the development of similar programs in China.

Literature

1. Plato. Plato’s literary and artistic dialogues [M]. Translated by Zhu Guangqian. Beijing: Commercial Press, 2013: 8.
2. Tao Xingzhi. Collected Works of Tao Xingzhi [M]. Nanjing: Jiangsu Education Press, 1997:109.
3. Liu Yuetan. Reconsideration of “Spherical Giftedness”: The Research and Evaluation of Guo Moruo at the Turn of the Century [J]. Journal of Lanzhou University (Social Science Edition), 2002(1): 24–28.
4. Zhang Mingjun. Guo Moruo’s view of giftedness [J]. Guo Moruo Journal, 1999 (2): 27–31.
5. Zha Zixiu. The concept and identification of super-normal children [J]. Educational Research, 1990(8): 23–29.
6. Lai Cancheng. The development of the education of gifted children in the United States [D]. Comparative Education Research, 1985(01): 59.
7. Marsha Thompson, Cathy Seward, Sara Smith. Annual Report on Gifted and Talented Education [R]. Oklahoma: Oklahoma State Department of Education, 2012:5.
8. J.S. Renzulli, J.R. Relise. Gifted Persons from Encyclopedia of Education Research [R]. 1982:11.
9. Identifying the Gifted Child / New Albany-Plain Local Schools [Electronic resource]. – Access mode: <https://www.napls.us/Page/435>. – Access date: 10/08/2022.
10. SHI Jiannong. Education of Gifted and Talented Children and Cultivation of Outstanding Talents [J]. Chinese Journal of Special Education, 2021(9): 54–55.