# Teaching in Colleges and Universities is to Teach Students in Accordance with Their Aptitude on the Basis of Respecting Teaching Laws

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Abstract: With the popularization of higher education, the development of higher education classification becomes a systematic problem, which calls for necessary adjustment and improvement with regard to basic education, university entrance examination and enrollment, as well as break through in the application of human intelligence science. Its solution also requires true implementation of the law of "differentiated teaching for individuals", respect for the regular patterns of learning and the object of learning. It is the most encompassing science of education. We need to learn about people to know individuality, respect the law of learning to appropriately teach, respect for the law of technology to teach scientifically. Only scientific education, scientific administration, quality development, and genre development can lead to a satisfactory education for the people.

#### 1. Introduction

In the first 50 years of New China (1949-1999), under the concept of elite education, higher education has trained senior talents for national governance, scientific research and technology application. In 1999, higher education was popularized in 20 years (the gross enrollment rate reached 51.6% in 2019 [1]). China's higher education in the 21030s is the education of the whole people, and it has trained senior technical personnel for all walks of life in the whole society. Classified development is an inevitable trend. Since then, the "quantity" development of higher education should quickly turn to the "quality" development, classified development and scientific development. According to the current trend of differentiation, it is roughly divided into research type, applied type and skilled type.

Education is a system. The qualitative development, classified development and scientific development of higher education need basic education to make certain changes accordingly. Talent training should be consistent with the intellectual structure of human education. Otherwise, it will "inadvertently pepper seeds will not pick eggplant, cucumber and beans." At the same time, the

national unified examination should also make a more scientific design, jointly promote the development of higher education classification, for the whole society to train all walks of life, all kinds of urgently needed applicable talents.

The development environment of Chinese mainland has undergone fundamental changes, and all aspects should take the road of scientific development. In education science, the general manager is to teach students in accordance with their aptitude, respect people's learning rules, and respect the laws of learning objects. Both basic education, enrollment policy design and classified development of higher education should be developed under the guidance of educational scientific theories, and scientific administration should not be vigorously carried out by administrative means alone to achieve short-term goals immediately.

#### 2. Basic Education has Changed to Intelligence, Project, Structure and Characteristics

Chinese basic education has been kidnapped by "exam-oriented education" for a long time, and the pressure of entering college leads to the fierce competition of "high-quality" education resources. Therefore, China's basic education competition is the top priority. Everything else must give way. After many years of "quality education" has not been implemented. How to solve the set? We can only start with "knowing people scientifically and teaching students according to their aptitude", which can not only solve the disadvantages of "exam-oriented education", but also lay the foundation of "talent classification" for entering higher education. Scientific knowledge of people, to "according to their aptitude", to scientific teaching.

The object of education is people, and people have different differences. The same teacher, the same learning process, the results are different, in addition to the learning methods and hard work, it is caused by the different natural qualifications of learners. From people's natural qualifications, namely different intelligence (combination) characteristics, since childhood, repeatedly test the students' intelligence project quotient and combination, parents can correctly understand their children, children can face their strengths and weaknesses, on the basis of professional consulting, let parents and children independent, rational make suitable for their own education planning, career planning, career planning.

From junior high school, classes can be roughly divided according to the intellectual structure category, and the teaching plan between classes is designed separately, and different teaching methods are adopted. The school and students can negotiate to choose classes, timely adjust and gradually adapt, and basically realize independent diversion, automatic return, precise teaching and accurate learning. Under the condition of the popularization of higher education and the classification of higher education, the whole people should avoid blind competition for quality education resources as far as possible, run "super middle school", and squeeze the single bridge of "academic high education".

All living beings are equal, and they are born different. Born equal, does not deny the diversity of people's intellectual structure. Everyone wants to make clear their own intellectual structure and intellectual characteristics from a technical point of view. What is the most suitable person to learn? What? But neither the school nor the society offers this service. In fact, it is the same as the human blood type, which is mostly innate and requires technical tests. It is the performance of genetic genes in children, which belongs to the category of psychology and human resources research.

In 1983, Professor Howard Gardner, a famous developmental psychologist at Harvard University, proposed that there are at least seven kinds of human intelligence: language intelligence, mathematical logic intelligence, music intelligence, body movement intelligence, spatial intelligence, interpersonal relationship intelligence and self-knowledge intelligence [2]. Previously, the IQ has evaluation method, multiple intelligence evaluation system has not yet been established,

if our country first build student intelligence test science and technology system, the teacher can roughly understand the students 'innate intelligence advantage and project ranking, and personality traits, help parents understand the child's talent, clear the day after tomorrow education can compensate project, complement each other, reasonable planning education arrangement.

For example, preschool education and training planning, primary school education planning, middle school education planning, self-intelligence structure report, college entrance examination volunteer filling, career planning, enterprise post matching and so on, all need multiple intelligence evaluation, structure evaluation. But we are the most populous country in the world, only an examination means to identify people, do not know how many people buried, do not know how much educational resources wasted, do not know how much family financial resources and parents' heart, time.

Every natural person, is different, the class of "IQ" of the concept of more than 20, there are formal concepts of 14 expressions. And we put a year of more than 10 million candidates, with a test paper to evaluate a number of points, according to the score from high to low, the students into grades, corresponding batches to fill in the volunteer, enrollment, strongly clear the level difference of colleges and universities. Even if there is a special skill enrollment, in addition to the very inaccurate (there are subjective shortcut factors) art, sports special students, only a score of a reference value, "thousands of troops and thousands of horses across the single-log bridge" spectacle in the land of China enduring. Basic education should introduce and create a multi-intelligence evaluation technology and mechanism, and serve as the basis of the college entrance examination cultural scores for students' education planning, voluntary filling and career planning.

Now we often say that the so-called parents know their children, teachers know their own students, students understand themselves, even including the personnel department to promote cadres, no scientific basis, no scientific means, all by others impression, subjective assumption, labeled policy label, its accuracy, reliability is too low, too not scientific.

Human intelligence, from the perspective of education, there are four kinds of intelligence quotient is meaningful for educational choice. That is: IQ, EQ, quotient change and quotient change.

#### 2.1. Intelligence Quotient

Intelligence quotient is simply IQ [3]. The definition of IQ in Cihai: IQ, psychological intelligence test term. That is, the intelligence quotient. Intelligence quotient, the index of individual intelligence test score and the subject score of the same age, is the measure of individual intelligence. The concept and formula of IQ was first proposed by the German psychologist William Stern (William Stern) in 1914, and now it has a relatively mature evaluation method.

The five elements of IQ are: observation, attention, memory, thinking, and imagination.

#### 2.2. Emotional Quotient

Emotional quotient is simply EQ [3], also known as "emotional intelligence". Emotional intelligence is introduced in 1995, the American Harvard University psychologist Daniel Gorman proposed the concept corresponding to intelligence and IQ. It mainly refers to the person in emotion, emotion, will, tolerate setbacks and other qualities. There is no obvious congenital difference in EQ between people, and it is more closely related to the acquired cultivation. Among the many subjective factors of successful people, IQ factor accounts for about 20%, while EQ accounts for about 80%.

Emotional intelligence has an innate genetic component, but compared with IQ, nurture is very

important and related to the quality of will. It includes: understanding your emotions, mood changes and causes of change; being good at controlling your emotions, suppressing negative emotions, and motivating yourself; understanding others' emotions, understanding, good expression, intimate communication, and thus working in peace and pleasure with people of different personalities and types. Improving emotional intelligence is to change the part that cannot control emotions, thus enhancing the ability to understand and get along with others.

The level of emotional intelligence is not as available as the intelligence level, but is more accurately expressed, and it can only be judged by the individual's comprehensive childhood performance. Cultivating EQ should start from an early age, and it is an important component of leadership.

#### 2.3. Change Quotient

Change quotient is simply CQ[4],. There is no such thing as "changing quotient" in the world, which is a new word created by the author (its English name Change quotient is the English translation of "changing quotient", mainly to unify with Chinese names such as IQ and EQ). Change the business, is to change the intelligence, which is the soul wisdom found by the author in the study of the "innovative talent" topic- - -change the business. It refers to people's innovation, innovative intelligence. That is, creativity quotient is an innate quality of destructive, innovative, critical and accomplishment.

Only those who are born with strong "changing business" and have high changing business can have innovative potential and can be trained into talents with innovative characteristics. Talents with innovative characteristics may cultivate more innovation ability than ordinary people; people with low business change can also improve their innovation ability through innovative education. Innovation power is manifested in two aspects: one is innovation consciousness; the other is innovation behavior. People with strong innovation consciousness and innovation behavior may be innovative talents with high transformative power.

#### 2.4. Body Sports Intelligence Quotient

Body Sports Intelligence quotient is simply BQ[5]. It is the ability to use the whole body to express thoughts and emotions, and to skillfully make or manipulate objects with both hands. This intelligence includes special physical skills, such as balance, coordination, agility, strength, elasticity, and speed, and the abilities caused by touch. They are suitable for: athletes, actors, dancers, surgeons, craftsmen, craftsmen, mechanics and so on. The level of the driving business, learning to drive a car process is easy to distinguish.

The different combinations of the above four intelligence quotient have great significance to education types and career choices. Among them, different combinations are choose based on IQ. The following typical combinations are given:

The first: such as high IQ, high EQ, but change business and business is not high, not suitable for reading research, skilled universities, the most suitable career is civil servants, suitable for application-oriented education. Most of the most prominent Chinese officials are of this type.

The second: if the IQ is high, change business is also high, but emotional intelligence and business is not high, suitable for reading research education, not suitable for reading skilled education, not suitable for civil servant career. Most of the outstanding achievements of the scientists belong to such talents.

The third: if the IQ is high, the business is also high, but the EQ and business is not high, suitable for skilled education, engaged in technical operation, sports, driving work. Craftsans, artists, high-level athletes and other talents from major countries belong to this category.

Fourth: if the EQ and the change of business is high, the IQ and move business is not high, suitable for finance, finance and economics, business, business management schools or majors. Such talents should not read the law, accounting and other professional majors with strong compliance with the rules and regulations, suitable for finance, business, marketing, social networking, intermediary work. Mr.Ma Yun is this kind of talent, although he read the wrong major, but he still succeeded in business.

As we all know, the people with a high IQ are a minority, and the vast majority of people have an average IQ. In fact, not only is the high IQ person is not many people, another three kinds of intelligence quotient in a person, there is a very high people are not many, two kinds of high IQ people, is rare, four kinds of high IQ people, that is god, no world. In general, only people with relatively high "IQ" can apply for applied education; only those with relatively high "change quotient" can apply for research education; only those with relatively high "EQ" can apply for business schools, especially suitable for politics and business; and only those with relatively high "change quotient" can apply for skilled education, physical education, skill majors, which are most suitable for hands-on positions.

Starting from the intellectual structure and characteristics, choose higher type, is the 21st century "according to their aptitude" national education project, although, the relevant theory and technology is not mature, but the contemporary Chinese 2500 years ago the hole "according to their aptitude" theory, the effective way of science, it is a major scientific breakthrough in basic education.

## 3. The Improvement of the National College Entrance Examination is Smart-Reading, Innovation-Scientific Research

The national unified college entrance examination is the social issue that criticizes the largest number of people in China, but it is also an indispensable system (even if the intelligent society cancels the college entrance examination, it will become the great cultural heritage of the Chinese nation together with the "imperial examination" system), and only the unified college entrance examination must be relatively fair. Since the resumption of the college entrance examination in 1977, in the past 43 years, it has still returned to the origin (such as the cancellation of bonus points). The national unified college entrance examination has not made any new breakthrough.

If, basic education can start from the students' intelligence combination and characteristics, evaluation and evaluation of technology breakthrough, the university entrance exam can add new subjects, the original test subject scores, as IQ and basic subject knowledge test, add test project at least: "EQ test", "business", "business test" three major subjects, the students know their intellectual structure and characteristics, choose registration, can be used as an important point of different categories of colleges and universities.

Such college entrance examination enrollment has solved the social problems brought about by our long-term administrative and score classification and stratification. For example, "poor family difficult to produce" has become the measure of social equity and justice, enrollment indicators in provinces, cities, district distribution, long criticized unfair, special extra points, by a few real power loopholes, border and remote areas of preferential policies are used, become a few shortcut, occupy high quality higher education resources.

To put it bluntly, the current higher education, the college entrance examination, the high recruitment, are trapped in the "internalization", in the prisoner's dilemma game.

The vitality of college entrance examination and enrollment lies in science and fairness. Enrollment is mainly reflected in fairness, and the college entrance examination is mainly reflected in science. Fairness is the problem of social system design, and science is the problem of college

entrance examination examination paper design. The improvement of the college entrance examination is to improve the scientific nature of the college entrance examination subject design and the examination paper design.

At present, Tsinghua University, Peking University and other famous universities recruit a small number of candidates with the top college entrance examination scores of provinces, cities and districts every year. In the past 40 years, the scientists and technicians who have made practical contributions to major national scientific projects and projects are not graduates from Tsinghua University and Peking University. This fact shows two points: first, the number of students from Tsinghua University and Peking University serve the country after graduation, and the national excellent talent drain; second, it shows that the students admitted by the total score of the college entrance examination and "only high score" are not necessarily the students with the strongest innovative consciousness and creative ability. This conclusion is seen from the "youth class" of the 1980s, where the smartest people can read, but not necessarily the most creative people, not necessarily the best people, and not necessarily efficient and high-quality work.

This is because the creativity of the meeting to work, high success rate of people, in addition to IQ, but also to change business, EQ, soul business (will, perseverance) and other intellectual support. At the same time, the author thinks that the concept of "IQ" is put forward more than one hundred years ago, it is a comprehensive intelligence, including too much, should split a few intelligence, such as memory, understanding, thinking, logic, observation has relatively independent intelligence, between the college entrance examination high students, smart difference is very big, social crowd observation, multiple aspects of "superman" is rare. The concept of IQ, which was proposed at the earliest, now seems to need further research.

To this end, the author has four preliminary judgments.

First, scientific research talents are the scarcest talents in the country. Under the pressure of American science and technology, the scarcity is more prominent. Scientific research talents exist as natural persons. Different from our concept of "the people make history", scientific research is "made by heroes and history". The results of scientific research require teamwork, but without the main contribution of the leaders, the collective contribution does not exist.

Second, the biggest characteristic of innovative and creative talents is high "business change", rather than high "IQ", but it is certain that "EQ" is often generally low. A high "change quotient" person, if he does not receive a systematic higher education, is a very annoying person in the general population, because he is always dissatisfied with the reality, the correct conclusion, he always says the wrong elements, the bad conclusion, he has to find the good aspects.

Third, the contemporary high-end scientific research talents who are likely to achieve scientific research results must have systematically received modern, standardized, high-quality and high-intensity higher education and training, with a wide range of knowledge and general knowledge of liberal arts and science.

Fourth, innovative and creative talents are likely to be biased. In the basic education stage, a certain course or a few subjects of results are particularly outstanding, the rest of the homework performance is particularly poor or poor students, that is, partial subjects. Among them, students with extreme subjects are often not given high total scores, but a certain subject has extraordinary knowledge, depth and unique knowledge. Such extreme subjects may be innovative talents of this subject, and people who may create miracles. There are many such cases in history. Their business quotient may not be the highest and IQ, but they are not low, mainly showing their extreme preference for a certain subject, which seems to have a larger proportion in the liberal arts field.

From the perspective of human intellectual talent and top scientific research talent selection, not only the "youth class" is a misunderstanding, now Peking University and Tsinghua University across the country "college entrance examination students" top, is a long-term continuation of the

misunderstanding. Because smart (high IQ) children are not necessarily innovative talents, innovative talents may not necessarily smart.

Before the college entrance examination is not improved, the scientific connotation is not sufficient, and the testing means are not mature, colleges and universities should strive to find the "high change business" talents, focus on training; select students from extremely partial subjects, middle schools have outstanding talents in a certain subject, focus on cultivating single subject talents. The goal of doing this is to train top talents, innovative talents and scientific research talents for all walks of life in China.

## 4. Higher Education is Classified as Teachers, Teaching, Teaching Methods and Teaching Materials

The problem existing in the development of higher education classification is that we are used to classifying a school as a whole, rather than designing the teaching mode from the needs of professional learning. Instead of standing in the perspective of students 'learning, learning theory, method and technology should be constructed, in fact, only the theory, method and technology to meet students' learning needs is the applicable teaching theory, method and skill. Respect the law of student learning is suitable teaching; respect the law of technical learning is scientific teaching method. If this guiding ideology does not change, the transformation will fail, and the quality will be improved by the school, and parents and students, the country and employers will not be satisfied.

From the perspective of teaching, research-oriented universities attach great importance to theoretical teaching and rarely learn skills. The class is not connected with the reality, and the technical class does not start from the reality. Application-oriented universities, theory forerunner (students must know why), the course is divided into theory course and practice course, theory course to scientific research as the center, requires the latest knowledge, technology course to the textbook as the center, how to write, supplemented by skills training, and social practice disconnection. Skilled colleges, universities do not emphasize the system to establish skills teaching system, technology teaching system is not invented, nor is not valued; curriculum system, teaching material system, teaching system is not perfect, skills teaching center, classroom "lecture" still exists, and that skills teaching is the specialized level model, mainly theory system.

All universities are inseparable from the traditional "irrigation lecture" teaching mode, can not walk through the platform, cannot leave the classroom. I even believe that the practical problem-oriented teaching, with projects, modules and tasks as the teaching theme, is the teaching method for intelligent students; do not think that practical learning is the only way to learn skills, nor realize that practice is an efficient and practical technical method; and never use the "technical teaching method of knowledge and action" and "action oriented" as a scientific method.

The main reason is that constructivism is that "learning is a process in which learners generate meaning and construct understanding based on the original knowledge and experience, and this process is often completed in social and cultural interaction" principle [6]. People always with the original knowledge framework to understand the new knowledge, "constructivism" is the materialism of learning, and the materialism of teaching practice, but not become the guiding ideology of college teachers, not implementation in teaching practice, generally to the teacher's own knowledge system and cognitive law in teaching, no system learning and master the teaching methods. The secondary reason is that it is deep-rooted that "knowledge changes destiny" and does not realize the objective reality that "only ability changes destiny". It is generally believed that the integrated knowledge is transformed into ability (theoretical knowledge is so, but technical knowledge is not so). Thirdly, the reason is that there is no systematic guiding ideology and

practical experience in the teaching design link in colleges and universities, and the teaching design and other technologies are regarded as the necessary skills and skills of teachers. The most fundamental reason is that the teachers of specialized courses in colleges and universities have not received a systematic "normal education for university teachers", nor do they emphasize the prescribed procedures of the teachers' "masters lead apprentices" and teaching assistants to learn teaching methods.

In essence, the core of the classified development of higher education is the classified transformation and finalized development of the "four religions", and finally realize the difference of the "four religions". That is, teachers, teaching, teaching methods, teaching materials in the four aspects of the differentiation, positioning, finalization, differentiated development. Looking back at the "211,985, Double First-class Project", it is only related to research-oriented higher education, but has nothing to do with ordinary undergraduate schools. The goal of ordinary undergraduate schools is to transform it into application-oriented higher education, and study how to turn the "four education" to the style of applied technology education. The "demonstration, backbone, high quality and double high" project of higher vocational education is also the core problem of how to apply the "four teaching" and serve the skill teaching, and the technical method and mode of inventing and creating the skill teaching, rather than the secondary "school-enterprise cooperation", let alone the promotion and degree of educational administrative affairs. Now it is the government's education administrative work that is kidnapped by school teaching, and school teaching is kidnapped by education administrative affairs, which are "planting other people's fields, wasting their own land".

The development of higher education classification should not be divided according to schools, but according to professional characteristics. If an engineering university has both graduate education, undergraduate education, and specialized level education, it can be said that it is a research-type, application-oriented, skilled and all-round university. Even the engineering engineering of Tsinghua University should also be done as application-oriented students. Vocational education undergraduate and graduate education should also be skilled education, with each having a division of labor and each performing its own duties. Any kind of education, combining with the actual understanding of the world and learning technology in practice, is determined by the law of thinking of the human brain, and is determined by the particularity of the learning object, rather than by the classification of higher education.

There are three major problems in the development of higher education classification:

The first big problem is that it is difficult for college students to get out of the "exam-oriented education values", which is a problem of character. Now, all college students are dominated by "exam-oriented education values". According to the college entrance examination scores from high to low, the higher the more clear. High school teachers who study the rules and skills of the college entrance examination have instead become "experts". Examination knowledge evolves into the study of the examination itself. New Oriental training is also about teaching examination skills. It is very necessary, important and timely to put forward the "curriculum ideological and political affairs". The problem is that the values of students 'learning dominate the establishment of other values, and then, college students' "personal preset (test) three views" blocks the input of "correct three views". College students' "personal preset (exam-oriented) three views" is formed in the middle school stage, mainly induced by the content and method of exam-oriented education. Such as: everything to score, subject to the standard answer, regardless of human morality, regardless of norms and regulations, regardless of the answer outside of the things, only on "more points, kill a thousand people", "more hardship today, is for a lifetime of less hardship" and so on. In particular, the oath meeting before the college entrance examination is not much different from the behavior of religious mania and pyramid schemes in form. University, there is a process of "three view reconstruction", the so-called "delicate egoist", is "exam-oriented education values" in the

university get further theoretical, systematic, specialization, after entering the society, from scores into interests, avoid illegal, by any means for personal interests, and is called "delicate egoist".

The second big problem, is the application of undergraduate course and higher vocational undergraduate course, may be confused, is the talent positioning problem. Both sides are struggling with a question: is learning technology, let the application of higher vocational learning, higher vocational learning "general cost", is not to combine two into one? The current psychological state is "general" is not willing to transform, higher vocational rush to. If we must make clear the difference between the application of undergraduate course and higher vocational undergraduate course, just in a word: "the application of science and technology, higher vocational science skills". Technology is composed of explicit technical knowledge and hidden technical skills. Technical knowledge is an explicit technology, and the technical skill is the hidden technical knowledge that human beings cannot be explicit in it. In a word, the application of undergraduate course to learn a complete technology, higher vocational undergraduate course only to learn technical skills. If the higher vocational undergraduate students also learn explicit technology, and build their majors with the discipline system, then the way of higher vocational education will go astray, and the education orientation will change. The purpose of upgrading the undergraduate education is not to do "applied undergraduate students", but to learn more, more refined and more systematic skills.

The third big problem is "universal to application-oriented", who to turn? Who turns? It is the accurate problem of classification. Is it all transferred except for the "double first-class" universities? Still just after the expansion of the new "general university" transfer? This is the question that all universities want to ask. Must be clear, after the expansion set up "this university" first transformation, because the school building time is short, has its predecessor cultural genetic factors, the school itself university culture has not been fully formed, in the plastic stage, transformation is relatively easy, can also for other transformation schools to explore a new model of "colleges and universities of applied technology".

Shi Yigong, president of Westlake University, said in his speech at the Great Hall of the People, "undergraduates mainly learn the knowledge that human beings have accumulated for a long time, with both scientific research and skill training."Compared with the three main and auxiliary parts (knowledge, scientific research and skills) of undergraduate learning, all undergraduate universities should adjust the "four religions", respect the law of learning, respect the law of technical learning, improve teaching methods, and improve the application, practicality and academic nature of undergraduate education. Even in research-based universities, their undergraduate teaching must learn the complete technology and learn the technical skills, otherwise, students will only learn the dominant part of the technology, and the hidden part will be missing. The reason why the current undergraduate students do not apply is here, and it is also one of the meanings of "foundation-oriented" proposed by the Higher Education Department.

General undergraduate course turns to application-oriented university. In teaching practice, the curriculum is not divided into application and academic categories, but skills courses according to the law of technical learning, technical knowledge courses, problem orientation, project carrier, work process and other topics, and emphasize academic, is to provide various paths and solutions, introduce the advantages and disadvantages of different choices. Different majors and different courses have different application and academic properties. The general law is the basic theory course, with strong academic nature, and the professional technical course of high technical content. But can not absolutely stipulate, set absolute assessment standards, schools and teachers have their own reasons and methods. Different ordinary colleges and universities all know what level and position they are in, whether they are more practical or more academic, it is up to the school itself. They cannot draw a gap, and make the universities across the country into the same again, and all applied universities and applied majors into a uniform model.

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