

Teacher as Tutor: The Key to Cultivating Creative Talents

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Abstract. The key to cultivate innovative talents lies in teachers with an emphasis on teachers' guidance. Teachers should clarify their own professional role as "tutor", giving enough respect to the dominant position of their students and playing their guiding role to the students. In order to cultivate creative talents, teachers should respect the student-oriented objective, research on the students' course by teaching on the basis of students' interests; implement teaching method tailored to different characteristics of students and carry out research-based learning based on their questions. Teachers should play a guide role in an effective way in order to become supporters and guides for students' innovative learning.

1. Introduction

"Why cannot our school cultivate outstanding talent?" Qian Xuesen's question highlighted the core problem of creative talents in China. By the way, Mr. Qian was one of the greatest Chinese scientists of the modern era, and a man widely regarded as the father of China's missile and space program. In this study, Qian Xuesen's question was the equivalent of Needham problem in the British. In school education, there are many factors, including education system, curriculum teaching and education evaluation, which will affect the cultivation of talents, but the effect is often indirect. It can produce effect only by the key factor of the teacher's understanding and using. In terms of innovative talent cultivating. In school education, as the important person responsible for the development of students, teachers are direct participants, undertakers and the leading role for education innovation and for the cultivation of creative talents. Therefore, their education concepts, education contents and methods act on the quality of talents and the cultivation of creative talents directly. At present, the key to cultivating creative talents in our country lies in teachers. What kind of tutorial orientation should follow the teachers? What kind of teacher can provide backup for creative talents? Based on the perspective of teachers, this thesis tried to answer for the core question of how to cultivate creative talents and to give it a solution.

2. The Reduction of Innovative Interest: Dilemma in Reality for Cultivating Creative Talents

Creative talents refer to those who have the ability to find out problems, profit from their own advantage and solve problems by practicing and make innovations. This kind of people are marked by traits such as being good at accumulating innovation experience, having creative thinking, creative ability and willingness of innovation. The basis and premise of these characteristics is to have the interest of innovation. Without interest, innovation cannot be started, maintained and achieved. In common sense, people are interested in exploring new knowledge. As long as create a relatively free relaxed environment and the necessary support education for students, they have the interesting in things around under the endogenous power traction and to conduct individualization of exploration

and research. At present, students in our country have rich and profound academic knowledge and strong learning abilities. However, the motivation and interest of innovation are weakened instead of being strengthened. The only reason for the reduction of innovation interest can be attributed to the influence of other utilized education and the time of students' innovation is took up, which has eroded the students' interest in innovation. The reason is that the current education in our country is influenced by utilitarianism, large population who needs education, shortage of high-quality educational resources and other factors. Oppressed by the current situation teachers have all swarmed toward the objective of utilitarianism. They normally focus on figuring out an ultimate shortcut for students to get high scores and on making "faster and more economic" factory-styled, large-scaled and uniformed examinations for students. Students have become the most innocent and weakest "raw material" in the education chain, reluctantly abandoning the interest of "ego". From elementary school and even from kindergarten, they have to struggle to cope with examinations such as from primary school ascent to junior middle school, from junior middle school ascent to senior middle school and from senior middle school ascent to university. Little by little this kind of education not only failed to guide the students' innovative consciousness and creativity but also suppressed their instinct for exploration and creative thinking, thus causing the dilemma in creative talent training recent years in our country.

3. Tutor-Based Teachers: Breakthrough in Creative Talents Training

Since students are the main body of study, their learning is an active process of constructing themselves with the external world. Having been educated with professional knowledge, teachers are the important bridge between students and the external world by playing a role of guide to cultivate creative talents. The "Teacher Law of the People's Republic of China" explicitly explains that teachers should "guide students' learning and development". The book of "Education, in which contains wealth" describes that teachers will not only take main responsibility and but also play a locomotive role in education. All of the above project a spotlight on the "guide" effect of teachers. How do we understand the word "tutor" correctly? What kind of educational view is there in the role of different teachers?

Tutor is essentially a "teacher" with highlight on "guide." In Chinese traditional culture, the great work of "Shuo Wen Jie Zi" pointed out that "guide is kind of viaduct of drainage", which means towage by hand and puts emphasis on enlightenment, guidance and persuasion. The famous Chinese water conservancy project of Dujiangyan guides the water flow through dam against the flood of river and had turned the flood into irrigation in favor of million acres of farmland. This example fully embodies China's traditional guiding ideology. In western culture the word of tutor (Hierophant) comes from Greek, elaborating that the tutor is a Saint mastering considerable knowledge and wisdom. The midwife theory of philosopher Socrates lively reflects the essence of "tutor". The teacher, like a midwife, should inspire and guide students so that they could draw their own conclusion by means of thinking. The "teach" in Chinese traditional culture emphasizes the transfer of all knowledge to students. The duty of a teacher is to transfer moral and cultural knowledge to students. In Chinese traditional education, the teaching function of education is more prominent than that of western culture. Currently, education resources in China are limited, and the selection and competition of talents are very fierce. This also leads to the examination of the selection of the examination system and the entrance examination system have to improve the depth and breadth of the knowledge, which increase the learning burden of the students' curriculum knowledge. Teachers also have to increase the amount of knowledge they have to teach in order to raise the enrollment rate. Unit time to impart more knowledge, the teacher has to use the teaching method of infusion, and give up the education method of guide.

The traditional method of cramming knowledge though can teach students more efficiently cannot stimulate students' innovation consciousness and creative interest. What is more serious is that a large amount of academic burden and knowledge indoctrination occupy the space of students' free

exploration, which is killing the students' innovative interest. This bad affection is even greater. Facing to the current education system cannot be changed in time, it is a simple and effective way to transform the professional role of teachers. The concept of "tutor" conforms to the rule of cultivating innovative talents and students' requirements in the new era hence becomes the key to cleave path of talents cultivation through difficulties. Tutor is a teacher who regards student as the main body of study, stimulates student's interest, directs student according to their traits and guides student to solve his problems. Tutor's emphasis is on embracing student's innovative thinking, stimulating student's innovative consciousness, developing student's innovation ability and provoking student's innovation willingness. In one word, the general tendency of education calls for teachers to become tutors who will guide and enlighten students.

4. The Actual Path for Tutors to Cultivate Creative Talents

In order to cultivate creative talents, tutors have to respect the subjectivity of students. Basing on their interests and characteristics combined with their learning experience, tutors will enable himself to become the supporter of students who wish to take an active attitude toward their study, to be the one who helps to solve the problems, to encourage creative thinking, to be tutor of the spiritual world and to become the lighthouse illuminating student's human nature. Therefore, how to "guide" becomes overwhelmingly important for a tutor.

4.1 The First Point is to Reform on Student's Courses Based on Their Own Interests.

A study on the success of Nobel Prize winners found that: interest is the source and main driving force of their significant success. At present, what our students lack most is neither accumulation of innovation nor willingness of innovation but are the interest, the passion of creation and creative thinking which have been constrained by the exam-oriented education system. Therefore, in order to cultivate creative talents teachers, have to respect students' interest both in knowledge and in the unknown world. They have to construct flexible student-based courses on their interest and recent development as well. Japan requires teachers to integrate curriculum knowledge with experience and interests of their students and to teach in the form of the whole class teaching and group discussions. South Korea has implemented outstanding talents education in primary school and middle school. In addition to routine curriculum courses, supplementary courses such as science and technology, industrial technology and creativity are designed, in which teachers are required to teach and guide students according to their specific interests and abilities. Two key points should be highlighted when tutors educate and guide students. The first is effective integration of the curriculum. National curriculum and student-based curriculum complement one to the other. National curriculum which serves as the basis and guideline for student is comprehensive and favorable to the accumulation of student's innovative knowledge. The student-based course which results from the integration of student's interests and experience is designed on the basis of national curriculum. The second is to organize interest group. Interest group is the most effective exploration for developing student's innovative thinking where students can concentrate on their own interest. A certain amount of class hours are provided each week as well as an environment of relaxation is available. Which to give full play to the guidance of teachers to stimulate student's enthusiasm and creativity thus realize the efficiency of education.

4.2 The Second Point is to Guide According to Different Characteristics and Implement Education Tailored to Different Personalities.

Characteristics refer to the level of physical and mental development with human nature as the main body under the combined effect of both innate and outside environment which includes personality traits, mode of thinking, knowledge, ability and so on. In diversified intelligence theory it points out that everyone's intelligence will express in a unique way and each type of intelligence will have many forms of expressions. Each child has its own unique characteristics and prevailing advantages. In order to find talents with creativity, many schools in the United States have insisted in implementing the "Genius Education Program". It will separate out 5% of students with innovative

potentials by examining indexes such as extraordinary perceptibility, extraordinary curiosity, extraordinary sensitivity and creativity, extraordinary learning motivation and extension of emotion capability. It will pay special attention to these students and give them necessary training. One of the important responsibilities of the tutor is to distinguish student's outstanding quality by judging the traits of the students and using different teaching contents and methods upon each specific individual. Therefore, to discover personal traits of students through observation, measurement and other methods is the foremost point which requires observing the characteristics of each student in daily activity accompanied by scientific scales such as diversified intelligences test, Cartel 16 personality factors scale and Edwards personal interest scale to screen out outstanding talents. Secondly multiple intelligence methods for teaching tailored to different characteristics should be utilized as well. Li Zhengdao, a chinese-american physicist, Nobel laureate in physics pointed out that one-to-one training method is indispensable in cultivating outstanding talents. Teachers will find out the advantage of intelligence through assessment, find out the best way to learn and carry out personalized teaching in the form of small class.

4.3 The Third Point is to Guide Students Based on Their Problems and to Carry Out Research-Based Learning.

Problems not only ferment student's creative thinking but also provoke research-based study. It is precisely because students have experienced some conflicts of recognition when they encountered problems; the motivation to learn has been hence stimulated. Teachers should seize the opportunity when students are willing to ask questions, guide them to analyze and solve problems, keep their motivation to learn and finally enable them to think and to do research work independently. Edison's mother Nancy is his most important tutor in life. She could tolerate apparently weird questions such as "why two plus two equals four?", "why can a hen hatch a chicken but not I?" Therefore, she made the success of "King of invention" by giving an environment of relaxation and positive guidance. If teachers could guide students like Nancy, cultivating outstanding talents will be undoubtedly achieved. It is emphasized that in the process of cultivating talents, students are always the main body of study. Instead of underestimating the learning ability of students, teachers should provide an environment of relaxation for study. They'd better tolerate student's "tricky" questions which might diverge from the routine teaching and encourage students to think independently, to explore in coordination and to find ways to solve the problem. They'd better guide students' problems with plenty of wisdom and satisfy their interest under the environment of equality, diversification and tolerance. As a result of continuous attention and problem-solving determination, the creative potential of students will be excavated up to maximum limit.

5. Conclusion

The key to cultivating creative talents lies in guiding. Teachers should be tutors by means of "guiding" rather than "cramming". They'd better protect student's sense of creativity from primary school, therefore to improve the quality of creative talents in our country as well as to decipher Q's question concerning school education.

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