

# Study on Promotion of Innovative Education in primary and middle schools in China

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**Abstract:** The nine-year compulsory education has been adopted for several years and it's effective. With the arrival of the era of knowledge economy and new challenges, we advocate the innovative education which can cultivate the innovative consciousness, spirit and ability in the process of the comprehensive quality education to foster more excellent talents.

**Key Words :** Education concept, Innovative Education

## 1. Introduction

The "innovation" mentioned here means the primary and middle school students, as independent individuals provided with education and influence, can be adept in discovering and knowing meaningful and new knowledge, ideas, things and methods, grasping the basic law included and possessing relevant abilities to lay the comprehensive quality foundation for becoming innovative talents in the future. Innovative talents have to meet two related requirements: innovative spirit and innovative abilities. The innovative spirit, mainly including curiosity, exploring interest, thirst for knowledge, being sensitive to new things, and persistent pursuit for truth and innovation, is the core and driving force of innovation. The innovative abilities, mainly including the creative thinking ability, creative imagination ability, and the ability to plan, organize and implement some activities, are the essence of innovation. The substance of innovative education is to carry forward the spirit of innovation, improve the students' innovation ability, and finally drive the independent construction and coordinated development of the students' comprehensive quality.

Innovative education does not mean that educatees are shaped passively, but they need to give full play to their subjectivity and initiative to make the teaching process become a way for students to constantly pursuit knowledge and improve themselves, i.e. a way for educatees to obtain independent learning and exploring ability.

## 2. The factors restricting the innovation from the school children

### 2.1. The cultivation of Students' innovative ability is restricted by the education system.

In China, both the school and parents hope to foster every child to be all-round. The students are forced to take all kinds of courses, learning knowledge no matter they are interested in or not, and busy dealing with all sorts of exams and tests. The policy, reduction of students' study load, advocated in China every year reveals indirectly that students, especially those in the large and medium-sized cities, carry a lot on their shoulders. Meanwhile, affected by the Chinese traditional culture that good students are those with obedience, school children seldom query the instruction from teachers. They are accustomed to swallowing everything from books, teachers and experts without any thought, therefore becoming conservative and hidebound. This kind of traditional teaching methods and education system makes students accept knowledge passively rather than obtaining it actively, which restrains the student's characters, thoughts, development, as well as creativity.

## **2.2. The cultivation of Students' innovative spirit is restricted by the mode of classroom teaching.**

Teachers' instruction time accounts for over 80% in classroom teaching in China, mainly caused by the excessive courses and limited class hours mentioned before. Teachers have to hurry up to fulfill the teaching plans, or else students' school scores as well as teachers' teaching evaluation will be largely influenced. Therefore, most of the teachers just one-sidedly present knowledge to the students, giving them little time and few chances to discuss or ask questions; the teachers just focus on the basic and necessary knowledge, but neglect the cultivation of students' ability of thinking and querying. In addition, the students overly rely on their teachers, having no consciousness of independent thinking, let alone the innovative spirit.

## **2.3. The cultivation of innovative talents is restricted by the current examination system.**

Under the current examination system in China, i.e. the ever-changing college entrance examination system, a student's future is simply determined by the achievements in this examination, which causes the abnormal worship from teachers, parents as well as students themselves towards examinations. People pay no attention to students' abilities, and focus on nothing but scores. The schools try every effort to make students get higher scores, including a pile of exercises and learning by mechanically memorizing; students can only obtain limited knowledge from textbooks. Thus there emerges the widespread phenomenon of high scores and low abilities among students.

# **3. The effective strategies for innovative education**

## **3.1 Change the education concept and develop a sense of innovation**

Knowledge is not attained by means of impartation, but acquired through learner's meaningful insight, making use of necessary study materials in some certain context (i.e. social and cultural background) with the help of teachers and study partners. Consequently, the change of education concept becomes the key and basis in implementing the innovative education; without the change there will be absolutely no possibility to cultivate any student with innovative spirit.

First of all, it is essential to realize the exact roles of the teachers and students in classroom teaching, as well as the relationship between teaching and learning. Teachers need to take the leading role to fully stimulate students' initiative and enthusiasm for study and make them involved in class activities with passion. A teacher should play a role as an organizer, mentor, assistor and valuator in the course of knowledge acquiring rather than a provider of knowledge; while a student should play a role as a participant, explorer and partner. Teachers should not impose their own ideas on students since the learning motivation, emotion and will from the students decisively influence the learning effect.

Secondly, replacing the traditional stuffing teaching method with heuristic, discussion and inquiring mode is surely required. Students can form a good learning habit only by constructing a new knowledge system with independent thinking and information received. They can gain the joy of success in this process to meet the interior demand and realize their values, so as to further stimulate their inner motivation for learning and innovation consciousness.

Moreover, it is necessary to create a favorable learning atmosphere and offer a stage of innovation to the students. The classroom atmosphere is the external expression of the real-time psychological activities from teachers and students. It is a kind of mental state, generating with the contribution of several factors including the moods and feelings from both sides, their attitude towards teaching and learning, teachers' prestige, and students' attention, and so on. A favorable atmosphere will come out with the cooperation between teachers and students, whose essential is to make the students realize their status of master in the learning process through dealing with the relationship between educators and educatees, also teaching and learning. Therefore, teachers ought to create a learning atmosphere with freedom, equality, harmony, cooperation and mutual respect and encourage students to inquire and figure out the approaches to problem solutions. Harmoniously cooperation between teachers and students in class is the foundation of a dynamic learning atmosphere, and then there could be a stage for students to improve their innovative abilities.

### **3.2 Develop creative thinking and improve innovative ability**

Creative thinking derives from conventional thinking process, but is much higher than that. It refers to new discoveries, solutions and opinions about some issues and views, whose feature is to get a breakthrough to the inherent cognition of people and make it much more profound. Creative thinking can be considered as the catalyst of innovative ability, for this reason, the teachers ought to raise questions, guide students to think independently and make them active in class. Einstein once said, "Imagination is more important than knowledge for knowledge is limited, but imagination generalizes the world, promotes progress and is the source of knowledge evolution." Imagination is defined as a psychological process of creating a new image by re-operating the basic consciousness. Imagination helps people to understand a question from outward appearance into inner essence and research the unknown things according to known features. What's more, rich imagination can create a new spark, making people's thinking a remarkable leap. As a result, encouraging students to show their imagination actively is necessary in teaching.

### **3.3 Take scientific approaches to improve practical abilities**

Scientific approaches are the most effective means to gain innovative abilities. Every new discovery or scientific achievement has to be researched with scientific approaches and verified in practice. Therefore, teachers need to train students to grasp the scientific methods according to the procedures of raising a question, making an assumption, working out a plan, implementing the plan and finally drawing a conclusion. Verifying experiments should be mainly applied to promoting students' practical abilities, while the traditional demonstrating experiments need to be abandoned. Verifying experiments are exploratory, providing students with background information and experimental appliance, which helps students find questions in the basis of specific materials, design the experiment plans, and make a conclusion through observing, analyzing, thinking and discussing about the experiment. In this way, students will make a progress on team spirit and invention. Sometimes, the experiment result is inevitable not as satisfying as what people expect. So teachers ought to guide the students to analyze the factors of failure and re-do the experiment till the best result emerges. It is a way to promote not only their practical abilities but also their capabilities to endure frustrations.

## **4. Conclusion**

It is indispensable to carry forward innovative education in primary and middle schools in China, in order to cultivate more talents, to change the education concept of the schools and teachers, to break the barriers to innovative education, and finally to create a new situation.

## **5. Reference**

- [1] Peng Kunming <Innovation and Education> [M], Nanjing Normal University Press, 2000
- [2] Cheng Mengran < Innovation Education-The 21st Century Education Mission> [J], Education academic and research 2009 (04)
- [3] Zhao Hai <Tty to Cultivate students' innovative consciousness and innovative ability> [J] Exam Weekly, 2010(2)