This paper discusses how today's children must be prepared to meet the challenge of the information age, stressing the importance of cultivating the whole child and noting the teacher's role in this endeavor. The first section describes basic education in China, focusing on required schooling, the curriculum, textbooks, examinations, and moral education. The second section presents a view of education in the United States, focusing on the state of Massachusetts. The third section compares the two education systems, examining commonalities and disparities. The fourth section focuses on the cultivation of the whole child, which is one of the commonalities between the two countries. It discusses the cultivation of children's personal qualities (moral, psychological, physical, cultural, and professional) and cultivation of children's abilities, including the ability to learn and the ability to adapt in an ever-changing world. The accumulation and application of knowledge accompany the development of children's personal qualities and abilities. When children are trained to become people with high personal qualities and abilities, they are learning how to know and how to do. As their knowledge increases, their personal qualities and abilities also grow. (SM)
March 19, 2000

We are living in the Information Age. The world is changing rapidly with the development of science and technology. Children must prepare themselves to meet the challenge of the new era. How might they adapt themselves to the changing world? How can they exercise their initiative and put the potential into full play? Education plays a leading role in the development of the next generation. The task of cultivating children falls upon the shoulders of teachers, the architects of the human spirit. Teachers should aim at the cultivation of children with high moral standards, extensive knowledge, creativity and adaptability. What is the most effective way to achieve this desirable result? Education reform is being carried on both in China and in the U.S. to cultivate high quality people for the new millennium to promote the development of the human species.

I. Basic Education in China

Education in China is unfolding in a planned way and is developing very fast in recent years. The State Education Commission is responsible for formulating laws, regulations, policies, and overall planning. It also establishes special funds for teacher training in disadvantaged and minority areas. It supervises and guides local education departments. The responsibilities of the provincial level government are to implement basic education in areas under their jurisdiction. Their work includes drafting development plans, designing curricula for primary and secondary schools, and evaluating basic education programs. They also establish education funds to help disadvantaged and minority areas and providing subsidies to counties with inadequate financial resources for basic education. County level governments bear the main responsibility for implementing compulsory education, including exercising overall management of school principals and teachers.

1. Schooling

Primary and secondary schooling takes twelve years to complete. It is divided into primary, junior high and senior high stages. Primary schooling lasts six years and junior high lasts three years. This nine-year schooling in primary and junior high is compulsory. The Compulsory Education Law of the People's Republic of China was promulgated in 1986. It says that any boy or girl reaching six years of age should enter primary school and must stay in school for nine years. General senior secondary education lasts three years. Generally speaking, those who prepare to go to college would go to general secondary schools, while others would go to vocational, professional or technical schools which last three or four years. The school year of primary and secondary schools is divided into two terms. The school year for primary school comprises 38 weeks of teaching sessions with an additional week in reserve and 13 weeks for holidays and vacations. For the junior high
the school year comprises 39 weeks of teaching with an additional week in reserve and 12 weeks for holidays and vacations. For the senior high the school year is 40 weeks of teaching session with one or two weeks in reserve and 10 to 11 weeks for holidays and vacations. Teaching sessions follow the National Curriculum for full time primary and secondary schools.

2. Curriculum

According to the curriculum, subjects are divided into two categories: state arranged subjects and locally arranged subjects, with the latter determined by the authorities of the provincial level governments in the light of local realities and needs. Subjects taught in senior high schools are divided into obligatory and optional categories, with the latter determined by local authorities in the light of local conditions. The basic subjects taught in primary schools are Chinese, mathematics, music and fine arts, physical education, moral education, history and geography. In urban schools and key schools in rural areas English is taught in the fourth or the fifth year. In high schools, Chinese, mathematics, English and moral education are regarded as basic courses. In addition, history, geography, physics, chemistry, physical education and fine arts are taught. According to the curriculum, art education constitutes the main means of conducting aesthetic education among primary and secondary school students. According to the curriculum, music classes and art classes are provided both in primary and secondary schools. After school, children may take part in scientific, cultural and recreational activities organized by children’s palaces (similar to Boys' and Girls' Clubs in America), clubs, centers or schools. Extra-curricula activities are organized in the light of the age and interest of school children, such as stage performance, competition of aircraft, ship and motor vehicle models.

3. Textbooks

Experts organized by the State Education Commission formulate school textbooks for nationwide use. All schools in China use the same textbooks to meet national standards. Teachers from different schools select relevant materials as supplementary reading. Recently, the State Education Commission has decided to adopt a policy of diversifying the preparation and production of school textbooks under the condition that unified basic requirements are compiled with. Now other sets of textbooks are used in the southern part of China.

4. Examinations

Throughout the course of compulsory education, students are required to take examinations and tests at the end of each semester, school year and before graduation. In primary schooling, the Chinese language and mathematics are required examination subjects, while with junior secondary education, the graduation examination subjects are determined according to the scope of general subjects taught in the graduating class which are set by the state. All primary school graduates who meet local requirements for graduation enter nearby junior high schools without sitting for any entrance examination.
But if they want to go to key schools they have to take the examination provided by the key schools themselves. Those who successfully meet the requirements of junior secondary schooling and seek to continue their education in any category of upper secondary schools have to pass a locally organized entrance examination before admission. For the students of senior secondary schools, a system of locally unified final examination has been instituted to assess the scholastic achievement of students. All students who pass will get the certificate for graduation. They then have to take another nationwide entrance examination if they want to receive higher education.

5. Moral Education

Moral education is greatly emphasized in primary and secondary schools to cultivate moral character and ethical standards. Stress is laid on the integration of moral education with all classes and social life. The basic contents of moral education are the "five loves", which include loving the motherland, loving the people, loving work, loving science and loving socialism. The aim is to lead young people to gradually build up a scientific worldview so as to lay a solid foundation for them to become a new generation with lofty ideals, moral integrity, knowledge, culture, and discipline. "The Code of Conduct of Primary School Pupils" and "The Norms of Daily Behavior of Primary and Secondary School Pupils" have been formulated, setting the basic requirements for the behavior of students. Work education and skill training have become an integral part of school curriculum.

II. An Incomplete View of the Education in the U.S.

I came to the U.S. in 1998. I talked with teachers and students visited schools and studied educational reform materials issued by the Massachusetts Department of Education. I have witnessed a vivid picture of educational reform and listened to heated debates over curricula, examinations, and varied approaches to teaching. The Massachusetts law has adopted a policy which intends "to provide a public education system of sufficient quality to extend to all children the opportunity to reach their full potential and to lead lives as participants in the political and social life of the Commonwealth and as contributors to its economy" (MCF P.1). The Board of Education states that "the mission of public education is to provide each student with the value, knowledge and skills needed to achieve full potential in his or her personal and work life and to contribute actively to the civic and economic life of our diverse and changing democratic society" (MCF P.2). With that aim and mission the Commonwealth of Massachusetts presents the Massachusetts Curriculum Frameworks, which provides guidelines for curriculum, teaching and assessment in public schools. The goal is set and the mission is clear. It is the teacher who brings ideas and principles into the classroom. I have observed responsive classes that are full of active games and enjoyment. The Greenfield Center School is a case in point. I visited a language arts class in the 7th Grade while Greek myths were being taught. The students took turns giving performances of the Greek myths that they chose and prepared, while the audience students were asked to fill out a performance listening map, writing down the names of performers, the title of the story, the most important event, the
outcome and techniques used. This is a typical example of the integration of reading, producing, creating, speaking, listening and writing. It motivated the students' imagination and creativity. It gave basic skills training. Children sit, play and learn. This scene agrees with Dr. Chip Wood's theory in the book *Developmental Approach In Teaching-- A Notebook for Teachers*, "We need to stop hurrying children. Our school days require time. Time to wonder, time to pause, time to look closely, time to share, time to pay attention to what is most important. In school we must give children the time they need to learn. To hurry through the days, to hurry through classes, grades, and a timetable of achievement is contrary to the nature of children and will do irreparable damage to their minds and souls."

### III. A Comparative Study of Education in China and the U.S.

There is a lot in common between schools in China and the United States. There are a lot of disparities too. I shall name some of the differences in school education. In China, there is unified curriculum for all schools to follow while in Massachusetts in the United States, curriculum frameworks are provided and each school creates its own curriculum. In China, teachers have school textbooks for nationwide use or for citywide use whereas teachers in Massachusetts are free to choose whatever textbooks you like or sometimes they do not have a fixed textbook. There are about 40 or 50 students in the classrooms in China, while there are 20 or more students in a class in America. In classrooms in China the students sit in lines and rows, listening to the teacher who is standing in the front of the classroom, while students in the States sit at ease around a table, playing and learning. Chinese students have to spend hours doing their homework after school, and the kids in America do not have a lot of homework. Chinese students have major examinations in the middle and at the end of each semester, and the students in the States only have examinations at the 4th and the 8th grades. Different ways of teaching brings about different results. Chinese children are often shy to ask questions and they usually give answers only when they are sure that the answer is correct. The children in the States are brave to ask questions though they are sometimes considered silly questions, and they are brave to answer questions though they sometimes give wrong answers. Children in China are good at memorization. They have a good command of the basic skills in mathematics. They could do addition and subtraction correctly within one hundred in their mind before they go to primary school and they could recite the multiplication table in the second year. Children in the U.S. use their fingers when they solve very simple arithmetic problems in the first and even in the second year. Chinese children are trained to do calligraphy with the right way of holding the pen and straight way of sitting. The kids in the States have a diversified way of sitting and writing. The differences I mentioned above are the result of the differences in ideas about education. Most Chinese people believe in the traditional education theory. We have some traditional sayings, for example, "strict masters produce high quality apprentices," "a bronze vessel can not be formed without being beaten" and "a tree can not become a tree that could be used as a beam without being trimmed." (Corporal punishment is forbidden in Chinese schools--the above represents proverbial wisdom). Teachers usually set strict demands on pupils and they get support from parents. Most people in the U.S. believe that strict demands set on the kids will limit their creativity and free development of personality. I think that the encouragement of creativity
and strict demands on children are equally important.

IV. The Cultivation of the Whole Child

Above all the differences we have one thing in common. Teachers are all working enthusiastically to cultivate the students to be the whole-person, to become people with high moral standards, wide knowledge, and strong ability to adapt themselves to a changing world. Massachusetts Curriculum Frameworks state the expectations for the students: "If students are to succeed in the 21st century and meet the future's challenge, they must recognize the importance of education as a lifelong effort. They will need to communicate effectively with others through reading, writing, speaking, computing, the arts and technology. They will need to respect and understand people of diverse backgrounds in our diverse society. They will need to make informed decisions for themselves, their families, their communities and our country. They will need to contribute to our society. They will need to take responsibility for their own behavior" (MCF P.14). How could we teachers help the students meet the requirements and prepare themselves to meet the challenge of the new era?

1. The Cultivation of Personal Quality

I agree with Dr. Chip Wood that "children's developmental needs should be the foundation for every choice we make in our classrooms and schools". I think the first need for a child is to become a real person, to become a person of integrity, to be honest, straightforward and modest, and to be a person of high personal quality. By personal quality we refer to moral quality, psychological quality, physically quality, cultural quality, and professional quality. Children are in the process of growing and they are easily influenced and shaped in the process of learning. Timely and correct guidance will play a very important part in leading the students onto the right track. Rules and regulations are needed in providing a yardstick for them to measure their everyday behavior. They will help them learn about self-regulation and self-planning and develop in the right direction and hence benefit their creativity. To be a real person, students should learn evaluation and self-evaluation, which will help them, see themselves better and understand and care the people and the word better. Some people say that grading and evaluating students might be detrimental to a child's esteem. They say when he sees himself at a lower performance level he might doubt his own self-worth; and he will feel good about himself when everybody earns the same score. I object to this idea. We are living in the world of competition that promotes the development of society. Children should be trained to strive for excellence. They must be psychologically strong enough to prepare themselves to meet challenge, to meet success and to meet setbacks with a correct attitude. They should not be proud when they succeed and they should not be downhearted when they fail. The cultivation of the psychological quality should start from an early age. Evaluation from teachers, parents and the society plays a very important role in education. Praises help them see their achievements, while criticisms help them see their weak points and lead them to find a way to overcome them. Self-evaluation is equally important. Teachers should help children form the ability of self-evaluation. It is an ability to distinguish good from bad. They should not be blind to either
their merits or their shortcomings. They should also be trained to be able to see the merits of others, so that they will be able to show respects for others and learn from others and make up their own defects in order to be the best. Modesty is the first beautiful moral character that helps people learn and make progress. They must realize that they can never be the best if they fail to see others' merits. Moral quality cultivation goes closely with psychological quality cultivation. When they can distinguish what is good and what is bad and they are ready to accept truth, they will know how they should behave. Personal quality education lays a foundation for the healthy development of the whole-child.

2. The Cultivation of Abilities

Apart from being trained to be a person with high morality, children should also be trained to be able to do things that have never been done before. They have the responsibility of building the world in the new millennium and therefore they must be critical and creative. In 1994, the Massachusetts Board of education established three broad areas that are critical to life-long learning: "thinking and communicating, gaining and applying knowledge, working and contributing" (MCF P.11). A panel from the business community concluded that the essential skills for the 21st century workplace would be "decision making, problem solving, creative thinking, the ability to see things in the mind's eye, knowing how to learn and reasoning" (MCF P.20). If they want to survive and be successful in the new era they must acquire the abilities so that they can adapt themselves to the changing world. The cultivation of the ability should again start from an early age. The ability to learn is of first importance for children. They must know how to learn from books, learn from teachers, and learn from the society. A balanced approach should be adopted in school teaching. Teacher-directed learning and child-initiated learning should be integrated all the time. Children are like a blank piece of paper. It is very difficult for them to get onto the right track without the guidance of professional and structural direction. You can not get output unless you have input. The function of useful knowledge and information is to open their eye to a wider world that can provide them with more choices. Of course teachers should observe children's needs and abilities when they give information and conduct basic skill training, which, in turn, should help motivate the children's initiative ability and exercise their creativity. A responsive classroom is an ideal environment for them to develop their abilities. Children's parents and the society should share in the responsibility of development. In China teachers are trying to change the situation of teacher-oriented approach, with teacher standing in the front of the classroom teaching and the students sitting there listening. When we focus on basic skill training and intellectual achievement, we should create an environment to allow students to make choices, pursue tasks, solve problems, and demonstrate a responsive attitude in acquisition and learning. They must be active participants in the classroom instead of being passive listeners and imitators. Frankly speaking, children in the U.S. seem to need more basic skill training and intellectual achievement to narrow the gap between junior high and senior high schooling. In other words, children might not find that it is a difficult jump from junior high to senior high if they receive more strict training at an earlier age. Some mistakes might be avoided in the high school exam. For example: Question: Which days of the week start with the letter T? Answer: today and tomorrow. Question: How many...
seconds are there in a year? Answer: 12. They are Jan. 2nd, Feb. 2nd, March 2nd ...

The accumulation and application of knowledge go along with the development of their personal quality and ability. While they are trained to become people with high personal quality and ability, they are learning how to know and how to do. Meanwhile, when their knowledge increases, their personal quality and ability grow at the same time. Let's work together to strive for the cultivation of the whole child for the new millennium.

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