E in Taiwan ducation 2009

MINISTRY OF EDUCATION





To Our Readers



pre-school education reform, grade 1-9 curriculum reform, the restructuring of secondary education, the enhancement of higher education and lifelong learning projects.

To enhance the quality of education, the Ministry adopts the dual approach of introducing flexible entrance exams into high schools and higher education so as to enable students to find the most appropriate institution, alongside encouraging teachers to polish their teaching techniques. We also place emphasis upon providing equal education opportunities for all children, particularly those from disadvantaged families. Furthermore, the establishment of the Digital Opportunity Centre (DOC) marks our determination to narrow the gap between urban and rural areas. All these efforts at every level not only facilitate democratic and economic development, but have also cultivated talent in many youths, who have since earned several titles in international academic competitions. To realize even greater achievements, we look

forward to a deeper collaboration between local and central governments as well as efforts from both the private and public sectors.

In light of the challenges arising in this changing era, education policies must rely on the Ministry's experience in order to recognize the core values and education mission for the 21st century. Furthermore, drawing up more concrete education policies will allow Taiwan to enter into the fierce international competition benefiting other advanced countries. Based on these considerations, the Ministry has drawn up the Blueprint for Education, which incorporates advice gathered from all levels of education. The vision behind the Blueprint includes the establishment of a well-rounded environment, a happy learning atmosphere for students and the cultivation of high-quality citizens to raise the county's competitiveness and overall life quality. The five principles guiding this Blueprint include: holistic education, life education, lifelong education, mastery learning, and healthy campus.

The cultivation of human talent has been designated a high priority for all educators and scholars. However, education in Taiwan should not only focus on excellent academic achievement, but should also emphasise the importance of assistance for disadvantaged families. In response to the spreading impact of the global financial crisis, the Ministry has established various policies, such as the Plan for Human Resource Cultivation and Employment Promotion and the Education Safety Net Program to cope with the rising unemployment rate and insure students against economic disadvantages. Education reforms such as the recognition of core values, educational restructuring and resource allocation require a long-term effort. In the upcoming year we will strive to achieve high-quality education and let our children grow up in a happy atmosphere. We will work with both government and society to create a well-rounded education environment, so that students at all levels can learn and develop in every aspect and become competitive citizens in the global village.

Ching- ji Uku

Ching-ji Wu Minister of Education September 2009



An Overview



The Ministry of Education(MOE) is a cabinetlevel governmental body of the Executive Yuan, responsible for formulating educational policies and managing public schools throughout Taiwan.

Headed by the Minister, who is supported by one Political Deputy Minister and two Administrative Deputy Ministers, the MOE organisation includes the departments of Higher Education, Technological and Vocational Education, Secondary Education, Elementary Education, Social Education, Physical Education and several other agencies. They are in charge of the promotion and implementation of school education at all levels, as well as adult education, physical education and other educational affairs.

In addition there are the Bureaus of Education in the municipal governments, and, in the case of county (or city) governments, their jurisdictions cover local educational administrative affairs.

Taiwan's education system features the following components: basic education; senior secondary education; and higher education.

Basic education covers kindergartens, primary schools and junior high schools. Senior secondary education includes senior vocational schools and senior high schools.



Higher education includes colleges/universities, as well as graduate schools and post-graduate programmes.

According to statistics released at the end of 2008, there are a total of 5.17 million students studying in 8,096 schools of various levels.



THE EDUCATION ADMINISTRATION SYSTEM

Preschool education, such as kindergarten, is not a part of Taiwan's compulsory education, but the government is engaged in offering education opportunities for underprivileged children and to improving the quality of preschool education.

Compulsory education consists of six years of elementary education and three years of junior high school education, but the curricula of the two educational levels have been integrated into a New Grade 1-9 Curriculum.

Upon completion of compulsory education, students may choose to follow either an academic track or a vocational track.

The academic track involves three years of senior high school education, plus four years of college/ university education, graduate schools and postgraduate programmes.

The educational goal at these levels is to nurture high-quality professionals with a global outlook.

The vocational track includes senior vocational schools, junior colleges, institutes of technology and universities of technology. The purpose of the track is to cultivate technical manpower for the country. As for gifted students and physically- or mentally-handicapped students, their needs can be met by special education.

In addition, the MOE actively promotes supplementary education and community education in the hope of providing everyone with abundant opportunities to pursue lifelong learning.

From 1999 to 2008, the total number of schools at all levels increased by 181; at the same time the number of teachers grew by nearly 5%.

Since 1976, the gross enrollment rates in elementary and junior hugh schools have remained at a level of more than 99%.

The illiteracy rate in Taiwan has dropped from 7% in 1991 to 2.2% at present.

These statistics can serve as the best evidence to show that the quality of education in Taiwan is improving.

Looking towards the future, the Ministry plans to extend compulsory education to twelve years, to cover senior secondary education, in the hope of creating a more complete educational structure.



Educational System

The Educational System

The present educational structure supports 22 years of formal study. Completion times are flexible, depending upon the needs of the students. On average, the entire process requires two years of preschool education, six years of primary school, three years of junior high school, three years of senior secondary school, 4-7 years of college or university, 1-4 years of a master's degree programme and 2-7 years of a doctoral degree programme.

Compulsory Education

The MOE has implemented a ten-year trial compulsory education programme nationwide. This programme was designed to integrate junior high school and senior vocational school curricula. Now, junior high school students who are interested in beginning a programme in vocational training can do so during the last year of junior high school, for two years.

Senior High and Senior Vocational Education

There are two types of institution above junior high school level. These are senior high school and senior vocational school, both of which take three years to complete. Senior vocational schools offer courses in areas such as agriculture, industry, business, maritime studies, marine products, medicine, nursing, home economics, drama and art.

Junior College Education

Junior colleges fall into two categories: the fiveyear junior college and the two-year junior college, each having a different set of admission requirements. Five-year junior colleges admit junior high school graduates and offer five-year courses of study. Twoyear junior colleges admit senior vocational high school graduates and offer two-year courses of study.

Normal Education and Training Programmes

In Taiwan, teacher training programmes are available at higher education level and usually last four years. Those programmes fall into two categories: (1) Programmes for training teachers of secondary education; and (2) Programmes for training teachers of primary schools and kindergartens. The former are primarily offered by normal universities while the latter are chiefly offered by education universities.

University Education

University undergraduate programmes require four years of study; however, students who are unable to fulfil their requirements within the designated time may be granted extensions of up to two years.

Specialised undergraduate programmes such as dentistry or medicine require six to seven years, including an internship period of one year.

Graduate Education

Graduate programmes leading to a Master's or doctoral degree require one to four years and two to seven years, respectively. However, students who enter the graduate school as part of their onjob training can be granted an extension if they fail to finish the required courses or to complete their thesis/dissertation on time.

Special Education

Only designated schools are allowed to admit students who are mentally or physically challenged. Special education in preschool education and primary school requires at least six years; in junior high school, three years; and in senior high and senior vocational school, three years. Special classes are offered by regular education institutions, including primary, junior and senior secondary schools.

Supplementary Education

Based on the curriculum provided, it is classified into three main categories: basic education; advanced education; and short-term supplementary education. The study periods vary according to their curriculum design.

Supplementary education provides citizens with an alternative way to achieve their educational goals.

The Current School System



Educational Reform

Innovation in Education for a Vibrant Taiwan



Taiwan's educational system has grown and expanded; now steps need to be taken to upgrade the quality of education and to meet the demands arising in times of globalisation. The Ministry of Education has developed a four-year, school year (SY) 2009 - 2012 road map, aimed at strengthening the quality of education, creating a pleasant learning atmosphere and cultivating high-quality professionals with a global outlook.

The blueprint comprises hundreds of plans and projects aimed at achieving highquality learning, personalised education, equal opportunity, global vision and sustainable development.

The following fifteen administrative and governing directions were decided in 2008.

1. Preschool Education: Create a high-quality and happy learning environment that brings out the potential of preschool children. Free tuition for fiveyear-olds would start as early as 2010 as part of a two-stage project.

2. Education for the Citizenry: Strengthen the quality of education by downsizing the number of

students in each class. The Ministry provides equal education opportunities for all students, particularly those from disadvantaged families. Courses taught at elementary and junior high schools should not only enable students to view Taiwan from an indepth perspective, but should also help to build their characters and allow their aesthetic sensitivities to grow.

3. Compulsory Education: Taiwan now offers compulsory education for nine years, from primary school to junior high school. The Ministry aims to extend compulsory education to cover both senior secondary school and early childhood schooling to create a more complete educational structure.

4. Senior Secondary Education: Bridge the learning gap between rural and urban high schools. The current system of entrance examinations will undergo a major revision in a bid to make current school admissions fairer and more flexible. The measure aims to help outstanding students from remote areas to be admitted into their university of choice and junior high school students to gain admission into senior high and vocational schools close to home, as well as helping all students to find the most suitable higher education institution.

5. Higher Education: Improve the international competitiveness of colleges and universities; continue to push for collaboration among academic circles and different teaching fields; bring higher education and economic development together to upgrade national competitiveness; and cultivate professionals who are willing to make a contribution to society.

6. Social Education: Promote lifelong learning; bolster the functions of public social education systems; promote cultural activities; provide adult education classes for female immigrants, including those from China, and the Taiwan Character Project to promote character-building, arts, lifelong reading

Compulsory Education



and environmental sustainability education.

7. Teacher Training: Encourage teachers to polish their teaching techniques by subsidising plans that enhance professional teaching capabilities, while establishing a mechanism for comprehensive curriculum development in order to create appropriate, diverse and innovative educational activities.

8. Arts Education: the public sector should work with civil organisations and private firms to push for artistic educational activities at schools or museums that increase the capacity of citizens to appreciate the arts. The Ministry also offers grants for colleges or universities, educational institutes and performing groups who are engaged in arts education and cultural activities. National-level competitions for music, dance, fine arts, puppet shows and folk songs are to be increased.

9. Physical Education and Health Education: Foster physical education classes in schools; hold sports competitions; and strengthen the health plan. The MOE has also put tremendous effort into providing school students with an on-campus lunch service, food and drinking water, in addition to improving oral hygiene and gender education.

10. International Cultural Education: Increase international academic and cultural exchanges with initiatives such as a nationwide training and certification project for host families of international

students in Taiwan; publicise overseas study programmes and counselling; encourage overseas study trips for students in senior high schools or vocational schools.

11. Training and Counselling: Promote human rights on campus; offer counselling for school dropouts; ensure gender equality in education; organise college/university volunteer teams; hold fairs for senior secondary school organisations.

12. Internet and High Technology Education: Improve digital auxiliary education; encourage working for digital education certificates; establish community education networks.

13. Multi-Culture Education: Ensure and increase indigenous groups' rights and access to better education; cultivate diverse talents among indigenous and minority groups; promote indigenous people's cultural assets.

14. Special Education: Formalise accreditations for physically- and mentally-challenged students; subsidise special education in 25 counties and cities.

15. Environmental Protection Education: Promote nationwide safety and hygiene training; safeguard school safety initiatives; establish sustainable campuses.





Building a solid foundation for students

For many years, education in Taiwan focused mostly on course content that was designed to enable students to pass exams. The system produced students with some of the highest test scores in the world, especially in mathematics and science. However, its strong focus on test results has been criticised for placing excessive pressure on students and eschewing creativity in favour of rote memorisation.

As Taiwanese society became more open and liberal, more parents began to accept the idea that what education should do is enable students to demonstrate their talents instead of just scoring highly in exams. The MOE has, therefore, spent more than ten years carrying out an education reform that seeks to transform a static and tedious learning system into one with a more dynamic and creative style.

The ultimate goal of the reform is to mould young Taiwanese people into becoming more competitive, adaptable in a changing world, creative in their thinking and humanistic in their outlook.

Compulsory education is an important phase in building a solid foundation for young students in preparation for the 21st Century.



Preschool and Compulsory Education Preschool Education

Education is not compulsory for children aged between two and six years old. Parents of children in this age-group usually send them to study in kindergartens. In SY 2008-2009, 185,668 children were enrolled in 3,195 kindergartens. This relatively high number is due to the rising number of families with both parents working.

To ensure that children from low-income families (including those from indigenous areas) have an opportunity to receive the same basic education, the MOE launched a financial support programme across Taiwan in 2004. The project was initially only for five-year-old children on Taiwan's offshore islands, but later was expanded to cover all underprivileged children and those from families with an annual income of below NT\$ 600,000. Subsidies were also granted based on income level.

Moreover, the MOE plans to offer free tuition for five-year-olds as early as next year. A child education and care law for preschool integration of nursery schools and day care centres is currently under Legislative Yuan review, hoping to offer overall care

for young children.

Compulsory Education

In Taiwan, public education has been compulsory from primary school to junior high school since 1968. In 1982, the government further announced the Compulsory Education Regulations, which stipulate that children of at least six years of age are required to begin primary schooling without taking entrance tests.

After six years, they should graduate with a primary school diploma and need not take a test to enter junior high school. After three years, they are supposed to receive a junior high school diploma.

This is the basic coverage of the present nine-year compulsory education model.

Currently, there are a total of 2,654 primary schools and 740 junior high schools in Taiwan, offering quality education to 2.6 million students.

In 1998, the MOE launched a project to downsize the average class size in Taiwan. The move was carried out to allow teachers to dedicate more time to their students.

Before the downsize, the average class size in primary schools in 1994 was around 38 students, and in junior high school was around 43 students. Now, the average class size in primary schools and junior high schools is fewer than 34 students. This decrease in class size in primary and junior high schools is an outcome of the drop in Taiwan's birth rate and the implementation of the Nine-Year Integrated Curriculum (see below). By the year 2010, the class size in primary schools is expected to decrease further to 29 students, while the class size in junior high schools will be reduced to 33.

Education Reform

In response to criticism that education in Taiwan focuses too much on test results, the Ministry of Education put into practice the Education Reform Action Plan a decade ago that outlined key policies emphasising pluralism and general education.

The MOE adopted the principles of diversity and tolerance in re-building a learning environment in primary and junior high schools that encouraged academic excellence and respected the students' individual traits and potential.



Students receive an education that seeks to develop creativity and versatility by promoting sports and drama, with regular artistic performances also being staged on campus.

The Nine-Year Integrated Curriculum is one of the most important parts of the education reform.

Nine-Year Integrated Curriculum

Traditionally, the central government had the right to decide almost everything for schools of all levels in Taiwan, from the standard curriculum to students' school uniforms. The Education Reform Action Plan changed all that with the establishment of the Nine-Year Integrated Curriculum, which empowers local governments, schools and teachers to design the curriculum and teaching materials.

The Nine-Year Integrated Curriculum is one of the MOE's most important reform policies. Its ultimate objective is to diversify Taiwanese education. For example, instead of completely relying upon a national entrance exam to enter senior high school, junior high school students can now enter through what are called "multiple entrance schemes."

This Integrated Curriculum also places emphasis upon cultivating creativity by encouraging students to conduct their own research when doing homework, rather than by simply relying on their textbooks. The curriculum seeks to develop versatile citizens capable of responding to the challenges posed by globalisation in the 21st century.

After undergoing a trial run from September 2001, the integrated curriculum was put into full practice in September 2004.

Foreign language proficiency is another important aspect in cultivating versatile students. The MOE subsidises schools to bring in more qualified foreign teachers to teach English. To minimise the gap



between urban and rural areas in terms of educational resources for English teaching, the MOE draws from a budget for subsidising the disadvantaged groups, including indigenous peoples and lower income families, and trains qualified English teachers for schools in rural areas.



Compulsory Education Policies

Diversified Education

"One Standard, Multiple Textbooks" Policy

For the past several decades, students in primary and secondary education in Taiwan were required to use only the textbooks published by the National Institute for Compilation and Translation (NICT). Students could do well in their Joint Senior High School Entrance Exams just by memorising the contents of the textbooks. Some students would even refuse material taught by teachers outside the bounds of these textbooks because they would not appear in exams set by an examination committee.

To reach the goal of diversified education, the core of its education reform, the MOE implemented the "One Standard, Multiple Textbooks" policy in 1999.

"Multiple Textbooks" means that the textbook market is no longer monopolised by the NICT or by just one publisher. Schools can organise a committee of teachers to select the textbooks to be used by the students of their schools.

"One Standard" means the MOE allows students to take entrance exams that test their real academic level, by compiling comprehensive questions in accordance with the MOE's standards. The policy drew some complaints for increasing students' academic and economic burdens, but it is useful in terms of pushing Taiwanese education onto the next level – one that is diversified, creative and liberal.

Digitalised Education Bridging the Digital Gap

To bridge the digital gap between city schools and rural schools, in 2001, the MOE started promoting the College Information Volunteers programme, whereby college students formed digital volunteer groups to help children in rural areas to use computers. The programme also sought to improve the availability of digital information in remote schools and communities.

In addition, the MOE established an online tutoring system, with college students answering online questions from children in rural areas about their homework.

Localised Education Mother Tongue and Homeland Education

As Taiwanese society becomes increasingly liberal and open, other dialects such as Taiwanese, Hakka and indigenous languages are finding their way into the educational system, even though Mandarin Chinese is still the only official language in school education.

In 2001, the MOE asked public primary and junior high schools to design curricula based on the mother tongues of their students.

Aside from encouraging students to learn their native languages, the MOE also encourages students to learn more about the land of Taiwan by taking Homeland Education, a new subject that students in the third grade of elementary school are required to study.

In this subject, students are encouraged to foster an interest in the natural and humanistic aspects of their immediate environment and to carry out research to increase their knowledge of Taiwan's history and natural resources.

Spatial Education

Planning and Managing Campus Space

The MOE plans to allocate a budget of NT\$ 700 million to promote the Planning and Managing Campus Space Plan from SY 2007 to SY 2009.

The plan seeks to find ways to utilise the increasing amount of unused space on elementary and junior high school campuses, a consequence of Taiwan's low birth rate.

Approximately 1,000 schools could implement the plan and obtain a subsidy. The plan includes "building lifelong learning centres in communities", "designing campuses with special features", "promoting a sustainable learning environment", "transforming unused school space into gyms" and "building digital opportunity centres in rural schools".







Internationalised Education

Friendly Environment for International Students in Taiwan

As Taiwan is a part of the global society, there are increasing numbers of overseas Taiwanese returning, as well as foreign spouses joining the national family. To help children born to foreign spouses and international students to adapt better to the language requirements and regular schoolwork in Taiwan, the Ministry of Education is promoting tutoring programmes and after-school language programmes for those who are in need.

Taking the schools in Taiwan's largest city, Taipei, an example, some schools such as Shi-Dong Elementary School and Xin Sheng Elementary School offer Mandarin language programmes for children of returning overseas Taiwanese parents and international students who need to elevate their Mandarin skills.

Nangang Elementary School and Xihu Elementary School, located near the Academia Sinica, Neihu Science Park and Nankang Software Park, offer bilingual classes for children of foreigners working in that area.

Also, schools regularly organise a "Country Week", when exhibitions are held focusing on the culture, customs and traditions of foreign-bride countries. For example, during "Thailand Week", students are treated to delicious Thai food and watch performances by fellow students whose mothers come from Thailand.



Cyril (10), Chad

Ten-year-old Cyril is a fifth-grader in Shi-Dong Elementary School. His father was the former Republic of Chad Ambassador to Taiwan and his mother a librarian at the Taipei European School. He moved to Taiwan when he was six and after attending Shi-Dong Elementary School, he promptly enrolled in a special Mandarin language programme offered by the school.

The programme aimed to help international students and the children of returning Taiwanese emigrants with their Mandarin lessons in the hope of catching up with their Taiwanese counterparts.

"I was having difficulty in learning Mandarin at the beginning, especially the writing part," said Cyril. Thanks to the Mandarin language programme, however, the cute child from Chad now can speak fluent Chinese.

Cyril, whose favourite subjects are mathematics and nature, says he loves life in Taiwan - especially the friendly people here.

In Taiwan's largest city, Taipei, some schools such as Shi-Dong Elementary School and Xin Sheng Elementary School offer Mandarin language programmes for children of returning overseas Taiwanese parents and for international students who need to elevate their Mandarin skills.

Momodou (8), Gambia

Eight-year-old Momodou comes from Taiwan's African ally, the Republic of Gambia. He first came to Taiwan with his parents when he was five and he now studies in the second grade at Shi-Dong Elementary School. He was also enrolled in the school's Mandarin language programme.

Speaking in fluent Mandarin, Momodou says: "I love studying the language," and he thinks the instructor of the programme has done a great job in helping him learn Mandarin and become closer to his schoolmates. He especially loves playing football with his friends at school, even dreaming about becoming a professional football player in the future.



Senior Secondary Education

The MOE plans to include senior secondary school as part of compulsory education.

The senior secondary education system encompasses senior high school and senior vocational school for students aged fifteen to eighteen years old. Both streams offer a great variety of educational content and extra-curricular activities, allowing students to cultivate their academic knowledge and develop their personalities.

Wu Ching-yung Yilan

School Actualisation Programme grants bring innovation to students, teachers and classrooms

Principal of National Yilan Senior High School

One of the major challenges in the development of non-urban schools is to create a quality learning environment which will enable talented students to stay in their hometowns and develop a career. For Wu Ching-yung, the principal of the National Yilan Senior High School, receiving a School Actualisation Programme grant was a major step in shaping a positive and active learning attitude among students and teachers.

The Ministry of Education launched the School Actualisation Programme in 2007, aiming to bridge the learning gap between rural and urban high school students and to help senior high schools and senior vocational schools to build upon their own strengths in order to attract students. The MOE awarded the National Yilan High School a NT\$ 14 million grant over a three-year period.

"The biggest change that came with the grant has been the transformation of our whole teaching ideology and learning atmosphere," says Wu.

"Our students are keener to learn and the teachers are exploring innovative approaches to teaching in order to increase interest among students in maths, science and the arts. Such heightened interest helps raise the students' innovative abilities and academic achievement." The school does not give away huge amounts of scholarship money, but rather uses the grants to encourage students to write their own research proposals (subsidy up to NT\$ 20,000 per person); to help publish students' research results; to hold scientific experimentation classes every Saturday; to have digital recorder-microphones installed in every classroom; to establish an English Corner; and to use modern technology such as the Geographic Information System (GIS) in its geography classes.

The School Actualisation Programme is an educational reform initiative sponsored by the MOE. It selected 40 senior high schools and 34 senior vocational schools for grants in SY 2009, putting the number of total subsidised schools at 265 island-wide.

Senior High Education

The three-year senior high school is part of Taiwan's mainstream educational system. The MOE has pushed forward projects to include senior secondary school as part of compulsory education

with an aim of relieving study pressure on high school students and decreasing the gap between rural and urban schools.

Before the implementation of multi-channel admission into colleges and universities in 2001, senior high schools were primarily focused on preparing students to pass the Joint University Entrance Examination (JUEE). These days, admission into colleges or universities can be gained through recommendation

by senior high schools, after taking a test set by the various departments of colleges and universities, or by taking the JUEE. Senior high schools now encourage their students to join in extra-curricular activities such as student societies, non-governmental organisations and international competitions. Admission into better universities now partly depends upon involvement in such activities.

Enhancement of Global Competitiveness

The MOE has taken two important steps to infuse the principles of global competitiveness into senior secondary education. Firstly, the Ministry designed a global learning environment in 2002 that included well-structured English courses. Secondly, the MOE encouraged high school students to participate in International Mathematics and Science Olympiads. Moreover, in 2005, the Ministry introduced policies intended to increase the number of international students studying in Taiwan. A total of 12,830 international students are expected to be enrolled in senior secondary education in Taiwan by 2011.



Dual-Stream High School

For students who are undecided on whether to follow an academic or a vocational track in their secondary education, the MOE, in 1996, established several experimental dual-stream high schools that offer the usual secondary school academic content and vocational skills courses. Students study a first and second foreign language, mathematics, social and natural sciences, the arts, marine science, physical education and vocational skills; they are also encouraged to be active in extra-curricular activities.

Students who complete 160 credits could decide to continue their studies in four-year technical colleges, two-year junior colleges, or in universities. They could also decide to start working, as they would have gained adequate vocational training.

Nurturing Diversified Talents

Education in Taiwan is now focused on nurturing versatility. Hence, over the past few years, senior secondary schools and higher education institutes have adopted more diversified and internationalised curricula. With a more flexible college/university entrance system, high school students are encouraged not only to pass the entrance exam with high scores, but also to cultivate versatility in ways such as strengthening their language capabilities. In 1999, the Ministry designed the five-year Senior High School Second Foreign Language Education Plan. During the first phase of this plan, the MOE focused on training qualified teachers, enhancing course design and improving teaching facilities. More foreign languages, such as Korean, Vietnamese, Japanese, French and Spanish were included in the plan.

Senior Vocational Education

Technological and Vocational Education

Technological and Vocational Education is offered at senior vocational schools, junior colleges, colleges and universities of technology.

Students who graduate from senior vocational schools or junior colleges are, in principle, equipped



to start a business, take up employment or pursue a degree at a university of technology.

Students at the senior vocational level are able to develop vocational skills and career aptitudes; college-level students acquire a more advanced vocational education based on theoretical principles; and students at universities of technology are able to sharpen their vocational skills and are trained to write academic papers.

Industry-Academia Partnership Programme

The MOE, in accordance with the Human Resources Programmes passed by the Executive Yuan in 2005, plans to expand the industry-based content of school curricula in order to derive more value from the increased cooperation between private firms and schools. Thus, the Industry-Academia Partnership Programme was born in 2006.

The programme is meant to enhance industryacademia cooperation through several options. They are: the "three-in-one" programme (senior vocational schools + colleges + partner enterprises), the "three plus two" programme (senior vocational schools + two-year colleges), the "three-two-two" programme (senior vocational schools + two-year colleges + twoyear technological institutes), or the "three plus four" programme (senior vocational schools + four-year technological institutes).

Such a programme, based on the vertical continuation principle, will help students to find a job in the partner companies after receiving complete professional training.

The MOE also plans to revise the Education Personnel Employment Law by relaxing restrictions on including a professor's temporary employment in industry in the computation of their years of service. This would enable teachers to undertake further research, and benefit students' learning prospects. The department aims to train skilful technicians in electronics

Kao Ching-Yu, 19, Taipei

Department of Electronics, Nangang Vocational High Sche

Before Ching-Yu studied in Nangang Vocational High School, she was not sure whether her interest was in accounting or electronics. She followed the suggestions given by her parents and opted for electronics at the Taipei school.

"Here I learned how to design computer programmes, which could sometimes be fun but at other times very challenging," she says.

Students at the department also have to learn the assembly, operation and maintenance of electronics equipment as well as micro-computer electronic equipment or systems. The department is equipped with 60 advanced computers and it aims to train skilful technicians in electronics and to teach relevant professional knowledge and competence. "It was very inspirational when I received the scholarship from our department and it motivated me to study harder."

Kao took dance and culinary courses as extra curricular activities, which she said helped build her confidence and ease the daily study pressure.

As the school prepares its students to discover their real interests during their three- or four-year period of study, Kao ascertained in aptitude tests that she was more interested in accounting, rather than electronics.

Ching-Yu will be admitted into the Chihlee Institute of Technology for a two-year study period this year.

The MOE established the Taiwan International Association for Educational Tours in 2004, as a channel by which students in senior secondary education could visit other countries. In SY 2008, more than 6,000 students from 127 schools took part in educational tours to Japan and South Korea, while up to 6,400 Japanese students visited Taiwan. Such tours help the students acquire a global view and also serve to enable other countries to know more about Taiwan.

Higher Education

In an era of globalisation, it is necessary for a small, densely-populated nation with limited natural resources like Taiwan to cultivate dedicated, innovative intellectual and industrial talent. This is an indispensable foundation for continued national development. The Ministry of Education has launched a series of policies and reforms to help universities and colleges strengthen international ties, earn international recognition and assume a leading position in the international academic community.



Lee Wei-ling, 21, Taipei

Teacher training equips me with the tools to educate young children

The Department of Child and Family Studies, Fu-Jen Catholic University

I am really fond of children. Studying in the department not only enables me to understand the mentality of children, but also equips me with the knowledge to design useful and interesting courses beneficial to preschool children.

Students in my department are required to fulfil a one-year internship in kindergartens or child-related institutes in the junior year. For this, I have to write my own teaching plans, decorate the classroom and create teaching aids. Thankfully professors are always very kind and help me with problems and questions that arise.

Preparing teaching plans takes a lot of time and

effort, but it is always gratifying to see children smile when they learn useful phrases from me.

Fu-Jen teachers are passionate about sharing their knowledge and the school offers students a wide variety of academic subjects from which to choose. I plan to take courses in the Department of Textiles and Clothing during my senior year, so that I can be a designer and a teacher in the future.

Fu-Jen Catholic University is one of 28 universities that received the Excellence in Teaching and Learning award from the Ministry of Education in SY 2008.

The MOE launched the Excellence in Teaching and Learning Project in 2005 with the goal of upgrading the quality of teaching and the quality of higher education. In SY 2008, eleven public universities and seventeen private universities received grants from the MOE.



1. College and University Entrance Exams

Since 2000, the MOE has utilised a multichannel college/university admission system for senior high school students and senior vocational school students. The channels include school recommendation, individual application and examination and placement. In the first option, high schools make a list of students whom they feel are highly qualified for specific college or university departments. In the second option, high school students apply to a maximum of five departments prior to testing. In the third option, high school students take an entrance exam set by the College and University Entrance Examination Centre. Students can then apply for admission into colleges or universities based on test results.

2. Bachelor's, Master's and Doctoral Degrees

University undergraduate programmes require four years of study. Students who are unable to complete their course of study within that time may be granted extensions of up to two years.

Universities focus on academic studies and research, while universities of technology focus on practical, specialised skills training. Programmes such as dentistry or medicine require six to seven years, including an internship period of one year.

Graduate programmes leading to a master's or doctoral degree require one to four years and two to seven years, respectively. Students who enter graduate school as part of on-job training can be granted extensions if they do not finish the required courses or do not complete their thesis/dissertation on time.

26 Education

Sung Ya-ping, 28, Taipei

Diligent professors increase students' knowledge of ancient Chinese writing

PhD Programme in the Graduate School of Chinese Literature, National Chengchi University

I have always been interested in old things. History and Archaeology have long been my favourite subjects at school.

I was first drawn to Etymology during my senior year at Chengchi University and developed a keen interest in studying and analysing oracle bone inscriptions, or Jiaguwen, of the Shang Dynasty (16th to 11th century B.C.) The records of Jiaguwen suggest that words have existed in China for more than 3,000 years.

I am constantly inspired by my diligent professors, who encouraged me to devote myself to academics wholeheartedly. Some professors in my department do not leave their research laboratories until midnight every day. I think the positive learning environment is one of the reasons that I love studying at Chengchi University so much.

Seeing international students who are also interested in the field of Jiaguwen also encourages me to study harder. Their passion for Chinese culture may be stronger than that of some local students.

I feel that I have good colleagues in my academic pursuits and I hope to see more like-minded people take up the study of Jiaguwen.

National Chengchi University is among the eleven schools included in the MOE's Aim for the Top University Project.

The MOE launched the Aim for the Top University Project in 2005 and invested NT\$50 billion over five years in selected universities to boost their international competitiveness.

The programme has identified eleven universities in Taiwan that have the potential to break into the top 100 universities in the world, or to be amongst the best in the Asia/Pacific region in key research areas. Each year the universities receive funding from the MOE; they have to update their research proposals on an annual basis and develop international links, improve infrastructure and enhance research and teaching.

2. College and University Evaluation

To maintain the quality of higher education following this massive expansion, the MOE established the Higher Education Evaluation and Accreditation Council of Taiwan (HEEACT) in 2005 and encouraged schools to establish their own selfevaluation systems.

The HEEACT evaluates colleges and universities on their administrative and management systems, academic performance and computer resources. The evaluation sets objective standards, enhancing the quality of higher education. In the future, the MOE will evaluate higher education institutions on a regular basis.

3. Quality Enhancement Policies

In recent years, the MOE has instituted policies, including the Excellence in Teaching and Learning Project as well as the Aim for the Top University Project, that reallocate educational resources and help colleges and universities establish their own characteristics and strengths so as to compete with internationally renowned universities.





Quality Enhancement of Higher Education



1. Increased Numbers of Higher

The number of higher education institutes,

including junior colleges, colleges and universities,

has nearly doubled in the past decade. In SY 1998,

there were 137 colleges and universities in Taiwan.

By SY 2008, the number had gone up to 162,

constituting 102 universities and 60 colleges. There

was also a rapid increase in the number of private

colleges due to the upgrade of junior colleges to

Education Institutions

Fostering a Global Vision



1. Understanding Taiwan in the Curriculum

Twenty years ago, there was hardly any educational material about Taiwan. In 1990, the MOE started encouraging colleges and universities to introduce courses at all education levels that would enable students to increase their knowledge of Taiwan. Those courses were based on the educational principles of local cultures and self-awareness. Because of Taiwan's geographical features, courses that centre on Taiwan's ocean culture are offered. Some universities now teach courses such as oceanic science and culture, ocean literature and deep-sea diving.



2. English-Taught Courses

With the increase of foreign students studying in colleges and universities, the MOE has encouraged both public and private colleges and universities to offer courses in English in order to build a bilingual environment on campus. Many schools have also established foreign student affairs departments to assist students from abroad with visa applications and extensions and to help students adjust to life in Taiwan.

3. Internationalisation

In response to globalisation, the MOE has put forward projects that aim to develop Taiwan's international interaction. These include the following four policies.

Boosting International Competitiveness

In 2002, the MOE launched the Enhancing Global Competitiveness Plan, which aimed to foster international exchange activities; improve students' foreign language capability; increase appreciation for the arts, sciences and maths; and develop top-tier universities and research centres.

Promoting International Exchange

The MOE will provide more opportunities and scholarships for local students to study abroad and gain broad world views. It will also promote local culture in foreign communities and expand the number of foreign students studying in Taiwan. In addition, it will create a global learning environment that allows both teachers and students to develop global perspectives.

■ Calling for International Service

The MOE aims to encourage local students to participate in international community service projects and volunteer work during summer and winter breaks, in the hope that students will become more responsible and develop new perspectives.

■ Pushing for Cross-Strait Interaction

The MOE will continue to encourage academic exchange between Taiwan and China by allowing Chinese students to enrol in Taiwan's universities and graduate schools. Academic credentials from certain mainland institutions will also be recognised.

Celebrities from Technological Education



Wei Te-sheng, left, and Ni Fu-te, right, have gained global fame and brought honor to Taiwan

Many people with a technological and vocational education background have become successful in the business, sports and film industries. Wei Te-sheng, Director of Taiwan's most famous and well-received movie, "Cape No.7", studied electrical engineering at the Far East Junior College of Technology (which was granted university status and changed its name to Far East University in 2006). Wei's interest in history prompted him to make films that featured Taiwanese historical themes.

Ni Fu-te, the first local baseball player to have made the jump to the U.S. Major League Baseball after starting his career with Taiwan's Chinese Professional Baseball League, attended National Chiayi University (which the MOE upgraded from National Chiayi Junior College of Technology in 2000). Ni is the sixth major-leaguer from Taiwan. The left-handed relief specialist signed with Detroit Tigers in 2009.

Kuo Hong-chih, another player in the MLB, studied at Nan Ying Vocational High School of Business & Technology. He is the first Taiwan-born left-handed pitcher who has made it to the big league and the first Taiwanese player to hit a home run in the MLB.

These celebrities have become models for students considering developing a professional skill through vocational education. The MOE has earmarked further funds and resources to assist vocational schools in upgrading their facilities and teaching content.

Social Education



Photo courtesy of Zhong-zheng Community College Participants learn how to play Moon Zither in the classroom.

Learning is a lifelong process. Lifelong learning empowers people to gain new knowledge, and therefore enhance social inclusion, personal development, competitiveness and employability.

A "Virtuous Taiwan" campaign was launched in June 2009 to build Taiwan into a more decent society by stressing character-building education, grounding



Photo courtesy of Zhong-zheng Community College Participants exhibit hand-sewn dolls in the classroom.

in the arts, lifelong reading and environmental sustainability with a budget of NT1.2 billion.

The MOE has established a general learning certification system, organized basic education classes for adults and encouraged foreign spouses to attend language classes or receive further education.

Supplementary education is meant to raise the average level of education in the society as a whole. Key components include fundamental supplementary education, supplementary advanced education, and shortterm supplementary education. In SY 2008, a total number of 25,201 students enrolled in 534 fundamental supplementary schools, 98,376 students enrolled in 224 supplementary advance senior secondary schools, 38,134 students enrolled in 42 supplementary advanced junior colleges, and 27,495 students enrolled in 42 supplementary advanced colleges.

As for Open University, the enrollment number grew from 2,435 in 1999 to 4,357 in

2008. The total number of students reached 16,751 in school year 2008-2009.

Meanwhile, a wellrounded social education system has helped Taiwan's illiteracy rate among those over 15 years old to drop from 7.98% of the population in 1989 to 2.22% in the end of 2008 (from 1.3 million to just over 424,000).

MOE-sponsored institutions, such as community colleges, provide courses for adults, especially those who had to



discontinue their schooling (mostly females over the age of 55) and the growing population of foreign spouses who wish to learn Mandarin, Taiwanese, and English. Subjects range from Chinese language, foreign languages, computer skills, to musical instruments and dancing. The annual budget from MOE's Department of Social Education to subsidise community colleges is NT\$260 million in 2009.

Special Education

Laws and Regulations

Properly administering the needs of special education is an important part of promoting equal educational opportunities. To advance the progress of special education in Taiwan, as early as 1984, local government had legislated the Special Education Act, pledging to provide suitable education for both the handicapped and the gifted.

The act, which marked a milestone in the history of special education in Taiwan, contained regulations defining the goals and purposes of special education and suggested materials and methods for instruction. It was later revised in 1997 to provide more comprehensive support to needy students at all levels.

To ensure the better enforcement of the act, the Ministry of Education set up the Special Education Task Force to coordinate the various efforts of those engaged in providing special education.

Since the promulgation of this law, special education has made substantial progress in Taiwan. In 1950, only two schools had been established specifically for the education of blind and deaf children, with a total of 384 students.

By the year 2008, the number of schools for special education had increased to 24, including three



schools for the visually impaired, three schools for the learning impaired, nine schools for the mentally handicapped, and nine comprehensive special education schools.

Education for Students with Disabilities

Currently, placement of special education students encompasses special education schools, special education classes at regular schools, resource classes, regular classes, circuit guidance and assistance, home education and bedside education. Placement of these physically- or mentally-challenged students aims at satisfying their learning needs with minimum environmental constraints.

These special education schools include: comprehensive schools for the handicapped; schools for the hearing impaired; schools for the vision impaired, schools for the mentally challenged; and experimental schools.

Today, a total of 24 schools nationwide offer special education, with a total of 6,875 students.

Education for Gifted Students and Those with Special Talents

The Special Education Act allows gifted students to enter school before the required age, to skip grades or subjects, to be accelerated by a whole year, or to take courses beyond their year level. All schools are required to evaluate whether certain students could be accelerated in terms of year level or subject. Before receiving their diplomas, the teachers of the students who have been accelerated should confirm that they have reached the standards of the graduating class.



Students with outstanding talent in sports, the arts, sciences or other academic areas can also be recommended for admission to schools in advanced levels if they have claimed prizes during the school term in an international contest, if they have produced an outstanding performance at a science event organised by academic research institutions, or if they have undertaken independent research, published outstanding articles or research, or displayed great talent in leadership and been recommended by related academic institutions.



Education Expenditure



Legal Foundation of the Education Budget

Education is the foundation of a state and Taiwan's constitution sets clear guidelines for the regulation of educational objectives and methods. In order to allocate an education budget effectively, the government published the Education Basic Law in 1999, stipulating that all levels of government agencies should marshal a sufficient budget for education, utilise and allocate education resources fairly and provide subsidies to schools in rural or special areas.

To achieve those objectives, the Ministry of Education drafted the Compilation and Administration of Education Expenditures Act, which was announced and enforced in 2000. The Act contained eighteen articles expounding upon the following four main goals: **1. Stable Budget Growth**

The government should guarantee a stable growth in the education budget, which should not be less than 21.5 % of the General Government Net Revenues for the previous three years, to ensure a stable growth in the education budget.

2. Set Control Standards

The Executive Yuan should establish an Education Budget Commission in charge of setting standards for drafting the total education budget, marshalling subsidies and regulating the expenditures of all government agencies.

3. Announcement and Audit

To publicise education subsidies, the MOE established an Audit Commission on Education Budget Allocation, aimed at regulating standards and announcing the procedures for granting subsidies. **4. Transparency of Allocation**

Central and local government agencies should monitor schools' budget balances and make them accessible to the public. Moreover, the government should regularly conduct evaluations and grant subsidies based on these budget balances.

Educational Expenditure

In the fiscal year (FY) 1951, expenditure on public and private education at all levels totalled NT\$ 213 million, occupying 1.72% of GDP. In FY 2008, educational expenditure reached NT\$ 748.57 billion, or 6.07% of GDP.

> Before FY 1961, private education expenditure was less than ten percent of the total education

expenses. Under government encouragement, by means of subsidies, the number of private schools increased. By SY 2007-2008, education for the private sector reached 31.18% of total educational expenses, while that of public education amounted to 68.82%.

In FY 2009, the government's education expenditure at all levels accounted for 24.96% of the General Government Net Revenues for the previous three years. This year, the MOE adopted that percentage as the basis for designing the education budget.

Total Educational Expenditure at all School Levels

In SY 2007-2008, expenditure for kindergartens accounted for 2.88% of total expenditure; compulsory education 42.54 %; senior secondary education 15.81% (10.64% for senior high schools and 5.17% for vocational schools); higher education 38.14% (0.72 for junior colleges and 37.42 for universities or colleges); and others 0.63%.

Teachers' Qualifications

Teacher Training Education

Becoming a teacher in Taiwan meant one had to gain admission into any school within two categories after graduating from high school. The first type is the education universities that prepares students to become teachers for primary schools and kindergartens. The second type is the normal university that prepares teachers for middle schools.

Both types accept senior high school graduates for a four-year education. To teach at colleges or universities, a higher education degree is needed, especially a doctorate.

The 1994 amendments to the Teacher Education Law allowed all public and private universities to take part in teacher training, making it easier for people to obtain teaching certificates by taking related courses.

This effort to provide more diversified channels for training teachers and educational professionals than had previously been available was carried out to meet the demands of a diversified modern society.

Tuition and fees for teacher training education programmes are basically paid by the trainees themselves. However, full or partial financial assistance is available for some students.

College second year students or graduate school students are eligible to apply for teacher training

education programmes. Full programmes include common courses, discipline courses, education specialisation courses and a half-year of teaching practicum.

Those who complete the programme obtain a certificate. But one also must pass a qualification exam administered by the MOE to qualify finally as a teacher.

Chinese Language Teaching

Taiwan has for many years been home to numerous institutions devoted to the study of the Chinese Language. Students can simultaneously observe traditional Chinese culture as well as enjoy the advantages of a modern, developed society in Taiwan.

In face of the worldwide popularity of the Chinese language, the MOE also offers subsidies for domestic universities to establish post-graduate programmes in Chinese language teaching.

To date, about ten universities in Taiwan have Chinese language teaching departments. Eight of those universities have just started offering the programmes within the past two years.

Study in Taiwan

The number of international students in Taiwan has more than doubled from around 8,000 in 2004 to 29,776 this year, according to the latest statistics issued by the Ministry of Education (MOE) for the SY 2008-2009. This includes those who have come to Taiwan to learn Mandarin, those working towards a degree and students on exchange programmes.

The MOE established the Bureau of International Cultural and Educational Relations (BICER) in 1947 to promote international academic and cultural exchange and provide foreign students wishing to study in Taiwan with services relating to applying for government scholarships and obtaining more information about Taiwan.

The MOE considers internationalisation to be a significant part of higher education and recruiting greater numbers of international students as a more conventional and direct approach for creating an internationalised environment on school campuses.

The number of English-taught programmes and courses in Taiwan is on the increase, with most universities now offering such classes. For example,

National Taiwan University, National Chengchi University, National Tsing Hua University, National Chiao Tung University and National Sun Yat-sen University have all put together programmes in a variety of subjects ranging from science and literature to social science and other courses for foreign students to choose from.

At the same time, the Foundation for International Cooperation in Higher Education of Taiwan (FICHET) touts Taiwan as an ideal study destination. Reasons for this include Taiwan being a highly democratic country in the Chinese-speaking world and also a society rich in both cultural heritage and advanced technology, as well as the convenience brought by an integrated transportation system which enables accessibility to nearly all corners of the island.

The physical environment in Taiwan can be roughly divided into two parts: the flat to gently

rolling plains in the western third of the island, where 90% of the population lives; and the mostly rugged, forest-covered mountains in the eastern twothirds. There are seven national parks showcasing the diverse terrain, flora and fauna of the archipelago.

In addition, Taiwan is rich in terms of the diversity of its biological species, boasting more than 50,000 endemic species, or 2.5 percent of the world's total, according to a survey released by the Council of Agriculture (COA) in July 2009.

The hospitality of the Taiwanese people is widely recognised among foreign students and visitors and therefore forms an integral part of the life experience of those who have spent time in Taiwan.

The following pages introduce the major scholarships awarded and present stories from foreign students of different cultural backgrounds, who share their views upon education in Taiwan.

Scholarships

40 Education

Taiwan Scholarship

Since 2004, four government agencies, the Ministry of Education (MOE), the Ministry of Foreign Affairs (MOFA), the Ministry of Economic Affairs (MOEA) and the National Science Council (NSC) jointly established the Scholarship Programme of Taiwan to encourage outstanding international students to undertake degree programmes in Taiwan.

Types of Taiwan Scholarship A. MOFA Scholarship (for undergraduate or postgraduate programmes)

- Recipients are from countries which have diplomatic relations with the R.O.C. (Taiwan), or from those countries specified as diplomatically favourable by MOFA.
- R.O.C. Embassies or Representative Offices can award a pre-degree Mandarin Language Enrichment Programme (LEP) Scholarship upon application by scholarship recipients.
- International airfare for economy-class, directroute and round-trip flights, plus a monthly stipend of NT\$ 30,000 (approximately US\$ 882).

B. MOE Scholarship (for undergraduate or postgraduate programmes)

- Recipients are from countries other than those specified under the MOFA Scholarship.
- R.O.C. Embassies or Representative Offices can award a pre-degree Mandarin Language Enrichment Programme (LEP) Scholarship upon application by scholarship recipients.
- A monthly stipend of NT\$ 25,000 (approximately US\$ 735) for undergraduate or LEP study, or NT\$ 30,000 for a postgraduate programme.
- C. NSC Scholarship (for postgraduate programmes)

• Recipients are from countries other than those specified under the MOFA Scholarship.

- A monthly stipend of NT\$ 30,000.
- D. MOEA Scholarship (for postgraduate programmes in areas involving science and technology; for example, physics, chemistry, mathematics, engineering, medicine and agriculture)
- Recipients are from countries other than those specified under the MOFA Scholarship.
- A monthly stipend of NT\$ 30,000

Application

The application period is from February 1st to March 31st each year, unless individual Taiwan Representative Offices specify otherwise. For application guidelines and forms, scholarship types and quotas, as well as information about the selection process and outcome announcements, applicants may contact a Taiwan Representative Office directly at the end of January. Applicants must send their completed documents to the Taiwan Representative Office closest to the country of their permanent residence.

Mandarin Language Enrichment Scholarship

The MOE established the LEP Scholarship in

2005 to encourage students and individuals to learn Mandarin in Taiwan. While providing language study opportunities for Mandarin Chinese and Taiwanese culture at university or college-affiliated Mandarin training centres, this programme also aims to help scholarship recipients acquire a better command

of Mandarin and hence a greater understanding and appreciation of Taiwanese culture.

The LEP is awarded by R.O.C. Embassies or Representative Offices upon application. A monthly stipend of NT\$ 25,000 is offered to recipients for a maximum of one year. Application period and procedures are the same as above.

Amandine Dubois (26)

Journalism Department, National Chengchi University

Amandine Dubois received her Master's degree from the Journalism Department at National Chengchi University (NCCU) this summer. Her thesis is a documentary film recording the international collaboration of a play by French and Taiwanese puppet companies.

The play, entitled "The Box" (La Boite), tells a love story in and around a huge box on stage. Dubois' film chronicled their collaboration in both Taiwan and Lyon, France.

"My non-fictional film depicts the encounter between people from both cultures and tries to give some insights into the exchanges and the process of mutual understanding," says Dubois.

"In addition to showing part of the representations and rehearsals from both sides, my work tries to offer the audience a context in which to look at two longstanding puppetry traditions," she continues.

Dubios started filming in January 2008. The time she spent with crew members from both puppet

companies allowed her to observe both cultures closely. Therefore, the documentary film also reveals the problems facing this heritage in terms of carrying on in modern times.

"I think I am lucky to have met people who were very enthusiastic towards my project and to whom I am very grateful," she says.

"Montage is the most time-consuming part of the whole process," she muses. "I had to listen to the dialogues repeatedly before I could decide which parts to keep or leave out."

"Overall it was a great training experience for me," she adds.

Dubois came to Taiwan five years ago after taking Chinese Literature as her major at university back in France. She received an LEP scholarship for the first year in Taiwan and continued her Master's studies in journalism with support from the Ministry of Education.

"I started learning Chinese in France during

my high school days," she says. "After years of dedication, I still think my Chinese is not good enough."

"The wish to pursue further studies in Chinese is the reason that brought me to Taiwan."

Dubois said she enjoys the location of NCCU, which is at the foot of Chihnan Mountain; in addition, the equipment and facilities provided have definitely made life on campus very comfortable.

"In my experience, the school faculties have always been helpful whatever I needed," she says. "I am particularly grateful for the secretary in my department, who helped me out with a lot of administrative formalities."

Dubois thinks that in terms of education, Taiwan is attractive because of the diversity of programmes in which foreign students can enrol for Bachelor's or Master's degrees. Meanwhile, she feels her life at the university has become more cosmopolitan due to the exchange and scholarship programmes offered by the NCCU and the MOE.

Besides school work, Dubois likes to travel. She made use of the breaks between semesters to visit

different parts of Taiwan, as well as offshore islands such as the Orchid Island.

Her adventures include one summer when she and a friend took their bicycles and went all the way from Taipei to Kenting in Southern Taiwan to attend a music festival.

"Taiwan is a truly beautiful country," she explains. "Every trip I made around the island and the nearby islands has become a great memory full of interesting anecdotes."

"Living in Taiwan not only allowed me to discover and learn more about Taiwanese culture, but also, because of my interactions with people of other nationalities, it has broadened my vision and my understanding of the world."

Dubois, six from left, enjoys a group outing to Yilan with her classmates in NCCU.

Samantha Daniel (24) Saint Kitts

Department of Life Sciences, National Chung Hsing University

Samantha Daniel is a bright young lady who has just finished her Bachelor's Degree in Life Sciences at National Chung Hsing University, Taichung City, this June.

"I have known where Taiwan is on the map since I was a child," says Daniel, "but studying here is a once-in-a-lifetime opportunity."

The 24-year-old Taiwan Scholarship recipient from Saint Kitts explains she has been lucky in that whenever she needed help, there was always a Taiwanese classmate willing to offer a hand.

"My university is famous for Life Science and Agriculture," she says.

"Because of the diplomatic ties between Saint Kitts and Taiwan, my education is fully covered by the Taiwan Scholarship."

Daniel signed herself up to compete in the Mandarin and Taiwanese Speech Contest for Foreigners this May. Out of almost 100 contestants, Daniel impressed the judges by showing absolute confidence in the delivery of her speech. She was selected for the finals and won second place in the end.

"I told myself to do something before graduation," said the young and lively woman after she finished her speech, "and this is it."

"I felt nervous about the competition, but once I was on stage, I felt relaxed."

When Daniel is not busy learning Chinese or running experiments in the lab, she likes to sing. Karaoke is rare in her native hometown; thus spending a couple of happy hours singing with friends has become her favourite pastime in Taiwan.

"I always learn a new Chinese or Taiwanese song each visit," she says. "Sometimes my friends would show me lyrics in advance so that I could learn them before singing."

After her graduation ceremony, in which she delivered a speech on behalf of the foreign students in her school, Daniel is moving on to pursue further studies in medicine in the U.S.

"I know I am going to miss the people, how friendly and passionate they are," she says, "because I have enjoyed spending my past five years in Taiwan."

She added that she would start packing only a week before leaving, to prevent her from crying too much.

"I think it is better that I cry after I board the plane for home."

Vision

The 21st century is an epoch of a knowledgedriven, digital and environmentally-conscious economy. In facing challenges, education serves as a catalyst for national development. All countries invest abundant resources in the cultivation of talent. These endeavors focus on promoting quality teaching and learning to cultivate premium human resources so as to strengthen creativity and innovation for the challenges will be confronted in the future.

Considering the trend of international development and recognising the infrastructure of Taiwan rests on cultivating human talent, the Ministry of Education has formulated the following vision of Taiwan's education: to build a complete and high-quality educational environment; to empower educators and learners to develop effectively and happily; to foster competence for self-fulfillment so as to cultivate citizens with excellent dispositions and insight for the coming opportunities and globalisation.

Based on this vision, we will upgrade Taiwan's competitiveness through innovative education and personalized learning, by nurturing talent balanced with humane and technical, egoistic and altruistic, local and global development. In the future, we will create a mechanism for all people to share values and communicate opinions about education. Through this mechanism, we will be able to assemble the power of all the people to contribute to Taiwan's sustainability.

General Information

	Tot	al Popula	tion (milli	on)	Life Exp (ye	bectancy ear)		GDP	Literacy rate among	
		Populat	ion Struc	ture (%)			GDP	per	citizens	
		0-14	15-64	65-	Male	Female	(US\$billion)	capita (US\$)	aged 15 and above(%)	
1980	17.9	32.1	63.6	4.3	69.6	74.6	42.3	2,397	87.7	
1985	19.3	29.6	65.3	5.1	70.8	75.8	63.4	3,314	90.4	
1990	20.4	27.1	66.7	6.2	71.3	76.8	164.5	8,132	92.4	
1995	21.4	23.8	68.6	7.6	71.9	77.7	273.8	12,906	94.0	
2000	22.3	21.1	70.3	8.6	73.8	79.6	321.2	14,519	95.6	
2005	22.8	18.7	71.6	9.7	74.5	80.8	356.0	15,714	97.3	
2006	22.9	18.1	71.9	10.0	74.9	81.4	366.4	16,111	97.5	
2007	23.0	17.6	72.2	10.2	75.5	81.7	384.8	16,855	97.6	
2008	23.0	17.0	72.6	10.4	-	-	391.3	17,083	97.8	

Summary of Education at All Levels

		S	Y 2008-2	2009		Unit : Person
	No. of Schools (school)	No. of Teachers	No. of Classes (class)	No. of Students	No. of Graduates in 2008	No. of Students Per 1,000 Population
Total	8,096	275,236	158,847	5,165,431	1,275,245	224.22
Kindergarten	3,195	17,369	9820	185,668	-	8.06
Primary School	2,654	100,182	60,623	1,677,303	318,641	72.81
Jr. High School	740	51,729	28,128	951,976	317,975	41.32
Sr. High School	321	34,759	10,211	406,316	135,911	17.64
Sr. Voca. School	156	16,470	8,342	346,563	102,190	15.04
Jr. College	15	1,423	2,728	117,653	35,815	5.11
Uni. & College	147	50,078	31,101	1,219,802	287,725	52.95
Special Edu. Sch.	24	1,734	620	6,875	1,832	0.30
Supp. School	842	1,404	6,902	236,524	72,462	10.27
Open University	2	88	372	16,751	2,694	0.73

Gross Enrollment Rate and Net Enrollment Ratio by Level of Education

Unit:%

	Total		Kinder	garten	1st L	evel		2nd.	Level		3rd Level		
	10	lai	(3-5	(3-5 Yrs.)		(Primary)		Junior		Senior		(Tertiary)	
School Year	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	Gross	Net	
1976-77	69.68	67.57	11.06	10.45	100.65	97.54	90.21	77.33	56.54	43.17	15.40	9.97	
1981-82	72.74	69.52	15.74	14.87	101.11	97.59	97.71	84.41	68.03	52.58	16.71	11.47	
1991-92	83.73	78.74	24.13	23.30	100.99	98.70	100.23	91.70	90.28	72.93	32.37	20.98	
2001-02	93.12	82.29	26.96	22.94	99.66	98.19	99.25	93.53	99.66	88.21	62.96	42.51	
2002-03	95.05	83.44	27.62	25.74	99.99	98.04	98.74	93.47	99.94	89.32	67.56	45.68	
2003-04	96.77	84.63	28.16	25.31	99.53	97.29	100.99	92.41	97.04	87.63	72.37	49.05	
2004-05	99.02	86.55	28.06	25.97	100.77	98.23	99.77	93.00	96.81	88.44	78.11	53.20	
2005-06	100.01	87.71	27.73	27.68	100.34	98.46	99.85	96.51	96.01	88.53	82.02	57.42	
2006-07	100.93	88.55	27.66	27.57	99.54	97.77	99.48	96.65	98.79	91.31	83.58	59.83	
2007-08	101.88	89.25	27.75	27.70	100.81	99.42	99.12	96.68	98.23	90.72	85.31	61.41	
2008-09	101.55	89.69	28.43	28.37	100.68	99.41	99.36	96.93	99.11	91.65	83.18	63.76	

Number of Students Per Teacher at All Levels

Unit: Person

School Year	Total	Kinder- garten	Primary School	Jr. High School	Sr. High School	Vocational School	University	College	Junior College	Special Edu. Sch.
1976-77	29.90	32.66	36.04	25.94	23.16	22.70	11.42	16.22	20.00	6.65
1981-82	27.25	26.10	31.79	22.97	22.99	22.50	13.53	11.92	20.79	5.24
1991-92	24.22	15.83	27.20	21.23	22.29	21.28	14.82	11.38	19.35	3.72
2001-02	19.71	12.44	18.60	15.67	19.37	19.19	19.60	20.17	20.56	3.58
2002-03	19.67	11.79	18.39	16.05	19.43	18.41	20.04	19.94	20.97	3.52
2003-04	19.59	11.34	18.43	16.14	19.19	18.19	20.07	19.90	19.78	3.51
2004-05	19.59	11.35	18.31	16.28	19.41	18.48	20.08	19.48	19.57	3.73
2005-06	19.29	10.27	18.02	16.02	19.44	18.84	20.11	18.98	18.92	3.72
2006-07	19.30	10.60	17.86	15.70	19.30	18.38	19.93	18.63	21.01	3.79
2007-08	19.03	11.02	17.31	15.24	19.12	18.68	20.25	18.55	22.73	3.84
2008-09	18.77	10.69	16.74	15.10	18.91	19.01	20.47	18.81	23.65	3.96

						Unit : Person
SY	Total	Asia	America	Europe	Africa	Oceania
1971-72	427	225	155	39	1	7
1981-82	2,982	1,656	832	437	9	48
1991-92	5,959	3,764	1,264	796	35	100
2001-02	6,380	4,490	1,140	546	79	125
2002-03	7,331	5,116	1,243	725	104	143
2003-04	7,844	5,428	1,349	750	149	168
2004-05	9,616	6,358	1,892	941	225	200
2005-06	11,035	7,039	2,305	1,116	262	313
2006-07	13,070	8,119	2,819	1,544	294	294
2007-08	15,436	9,532	3,409	1,766	369	360
2008-09	16,909	10,722	3,608	1,846	366	367

Number of Foreign Students Studying in Taiwan

SY: School year

Ratio of Educational Expenditure to GDP

	Educational	Expenditure	(US\$million)	GDP(US\$	c,	% to GDP			
FY	Total	Public Sector	Private Sector	million)	Average	Public	Private		
1970-71	281	227	54	6,218	4.52	3.65	0.87		
1980-81	2,055	1,671	384	46,437	4.43	3.60	0.83		
1990-91	11,047	9,084	1,963	170,804	6.47	5.32	1.15		
2001	17,463	12,996	4,467	291,694	5.99	4.46	1.53		
2002	17,881	13,296	4,585	297,668	6.01	4.47	1.54		
2003	18,674	13,751	4,923	305,624	6.11	4.50	1.61		
2004	19,921	14,679	5,242	331,007	6.02	4.43	1.58		
2005	21,472	15,864	5,608	355,958	6.03	4.46	1.58		
2006	21,879	16,158	5,721	366,357	5.97	4.41	1.56		
2007	21,857	16,265	5,592	384,768	5.68	4.23	1.45		
2008	23,734	17,490	6,244	391,278	6.07	4.47	1.60		

FY: Fiscal year

Reading, Math and Science Scores of 15-year-olds on the PISA 2006

	Readi	ng		Mathem	natics		Scie	ence	
Rank	Country	Avg.	SE	Country	Avg.	SE	Country	Avg.	SE
1	S.Korea	556	3.8	Taiwan	549	4.1	Finland	563	2.0
2	Finland	547	2.1	Finland	548	2.3	Hong Kong	542	2.5
3	Hong Kong	536	2.4	Hong Kong	547	2.7	Canada	534	2.0
4	Canada	527	2.4	S.Korea	547	3.8	Taiwan	532	3.6
5	New Zealand	521	3.0	Netherlands	531	2.6	Estonia	531	2.5
6	Ireland	517	3.5	Switzerland	530	3.2	Japan	531	3.4
7	Australia	513	2.1	Canada	527	2.0	New Zealand	530	2.7
8	Liechtenstein	510	3.9	Macau	525	1.3	Australia	527	2.3
9	Poland	508	2.8	Liechtenstein	525	4.2	Netherlands	525	2.7
16	Taiwan	496	3.4	Czech	510	3.6	Switzerland	512	3.2

SE: standard error

Trends in International Mathematics and Science Study 2007

	Eight Grade	e Scie	nce	Eight G Mathen	Grade natics		Forth Grad	e Scie	ence	Forth Grade Mathematics		
Rank	Country	Avg.	SE	Country	Avg.	SE	Country	Avg.	SE	Country	Avg.	SE
1	Singapore	567	4.4	Taiwan	598	4.5	Singapore	587	4.1	Hong Kong	607	3.6
2	Taiwan	561	3.7	S.Korea	597	2.7	Taiwan	557	2.0	Singapore	599	3.7
3	Japan	554	1.9	Singapore	593	3.8	Hong Kong	554	3.5	Taiwan	576	1.7
4	S.Korea	553	2.0	Hong Kong	572	5.8	Japan	548	2.1	Japan	568	2.1
5	England	542	4.5	Japan	570	2.4	Russia	546	4.8	Kazakh	549	7.1
6	Hungary	539	2.9	Hungary	517	3.5	Latvia	542	2.3	Russia	544	4.9
7	Czech	539	1.9	England	513	4.8	England	542	2.9	England	541	2.9
8	Slovenia	538	2.2	Russia	512	4.1	United States	539	2.7	Latvia	537	2.3
9	Hong Kong	530	4.9	United States	508	2.8	Hungary	536	3.3	Netherlands	535	2.1
10	Russia	530	3.9	Lithuania	506	2.3	Italy	535	3.2	Lithuania	530	2.4
SE: sta	andard error											

Medals Attained by Our Students in the Asian Pacific/ International Olympiad

Year	2004	2005	2006	2007	2008	2009
Total	7G 18S 10B 6H	16G 10S 8B 4H	13G 12S 10B 3H	16G 14S 12B 3H	20G 12S 8B 4H	
Asian Pacific Math- ematics Olympiad	1G 2S 4B 3H	1G 2S 4B 3H	1G 2S 4B 3H	1G 2S 4B 3H	1G 2S 4B 3H	1G 2S 4B 3H
Asia Physics Olympiad Host Country No. of Participants Medals Rank	Vietnam 13 Countries 3S 2B 3H 2nd	Indonesia 17 Countries 3G 2S 2B 1H 3rd	Kazakh 18 Countries 2G 2S 4B 3rd	China 20 Countries 3G 3S 2B 2nd	Mongolia 18 Countries 2G 3S 2B 1H 2nd	Thailand 15 Countries 7G 1S 2nd
International Mathematics Olympiad						
Host Country No. of Participants Medals Rank	Greece 85 Countries 3G 3S 6th	Mexico 92 Countries 3G 2S 1B 7th	Slovenia 90 Countries 1G 5S 10th	Vietnam 94 Countries 2G 3S 1B 9th	Spain 101 Countries 2G 4S 9th	Germany 104 Countries 1G 5S 11th
International Chemistry Olympiad Host Country No. of Participants Medals Rank	Germany 61 Countries 1G 2S 1B 7th	Taiwan 59 Countries 2G 2S 5th	Republic of Korea 68 Countries 3G 1S 2nd	Russia 68 Countries 2G 2S 4th	Hungary 69 Countries 2G 1S 1B 5th	England 67 Countries 4G 1st
International Physics Olympiad Host Country No. of Participants Medals Rank	Republic of Korea 71 Countries 1G 3S 1B 7th	Spain 77 Countries 5G 1st	Singapore 86 Countries 3G 1S 1B 5th	Iran 76 Countries 1G 2S 2B 15th	Vietnam 82 Countries 5G 2nd	Mexico 68 Countries 3G 2S 4th
International Informatics Olympiad						
Host Country No. of Participants Medals Rank	Greece 80 Countries 2S 2B Nil	Poland 70 Countries 3S 1B Nil	Mexico 86 Countries 3S 1B Nil	Croatia 80 Countries 2G 1S 1B Nil	Egypt 77 Countries 2G 1S 1B Nil	Bulgaria 83 Countries 2G 2S Nil
International Biology Olympiad Host Country No. of Participants Medals	Australia 50 Countries 1G 3S	China 50 Countries 2G 2S	Argentina 53 Countries 3G 1S	Canada 49 Countries 2G 2B	India 55 Countries 4G	Japan 56 Countries 2G 2S
International Earth Science Olympiad Host Country No. of Participants Medals Rank	-	-	-	(1st Competition) Republic of Korea 7 Counties 3G 1S 1st	Philippines 6 Countries 2G 2S 1st	Slated to hold in September

G= Gold, S=Silver, B=Bronze, and H= Honorary award

Annual Papers and Rank by Nationality in SCI

Year	2004	4	200	5	2006	6	200	7	2008	
Country	No. of thesis	Rank	No. of thesis	Rank	No. of thesis	Rank	No. of thesis	Rank	No. of thesis	Rank
U.S.A.	368,482	1	375,508	1	382,458	1	388,109	1	376,621	1
China	60,816	5	37,659	5	90,460	5	98,089	4	110,778	2
England	91,018	2	94,227	2	98,935	2	102,878	2	100,250	3
Germany	85,441	4	88,748	3	92,764	3	98,419	3	97,022	4
Japan	89,253	3	88,445	4	92,226	4	89,453	5	87,443	5
France	58,643	6	60,860	6	64,299	6	65,774	6	68,739	6
Italy	46,862	8	49,111	8	53,496	8	57,670	7	57,958	7
Canada	47,129	7	50,736	7	54,732	7	56,201	8	56,674	8
Spain	32,755	9	35,230	9	39,156	9	42,959	9	44,284	9
India	24,759	14	27,461	13	30,873	12	35,728	10	39,479	10
Taiwan	15,300	19	16,973	18	19,384	18	20,594	19	22,676	17

Annual Papers and Rank by Nationality in EI

Year	2004		200	5	2000	6	2007	7	2008	
Country	No. of thesis	Rank	No. of thesis	Rank						
China	59,219	2	75,174	2	86,376	2	108,128	1	118,745	1
U.S.A.	134,545	1	130,886	1	93,747	1	79,330	2	68,977	2
Japan	43,190	3	48,272	3	46,808	3	41,081	3	31,369	3
Germany	26,977	4	29,236	4	26,771	4	26,248	4	23,096	4
England	26,823	5	25,980	5	24,992	5	24,106	5	20,595	5
France	19,864	6	21,648	6	20,959	6	20,458	6	18,883	6
Canada	17,845	7	20,825	7	17,928	7	18,701	7	15,395	7
India	10,590	12	12,369	12	14,398	10	15,883	10	15,147	8
Taiwan	11,570	10	13,395	10	14,890	9	17,244	8	15,080	9
Italy	15,247	8	16,245	8	15,648	8	16,548	9	14,261	10

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