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Globalization meets localization:
The Case of Taiwan Education

Chuing Prudence Chou

(draft)

CONTENTS

PREFACE

The intent of this book is to examine the processes of schooling in Taiwan amidst social, cultural, economic, and political conflict resulting from local and global dilemmas and issues. The book opens with an introductory chapter detailing the recent world-wide phenomenon in education, i.e. globalization and localization, followed by parts one through five to showcase the different perspectives of Taiwan's education…. The book's underlying thesis is that the mechanisms of localization and globalization both brings issues and dilemmas in Taiwan's educational system. These phenomena also relate to the governance, financing, the provision of mass education, the issues in equity of educational opportunities, and the outcomes for differently situated social groups. They are also defined as common dilemmas endemic to school environments everywhere and represent global challenges of the twenty-first century that have in one way or another transformed the lives of almost everyone.

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Education system in Taiwan, similar to other education systems in East Asia, has undergone an enormous transformation over the last two decades. Education has become interconnected with trends of globalization and internationalization, development of information communications technology, and a set of political, sociological, economic, and management changes. These changes together produce multifaceted influences on education in Taiwan. In particular, the ideology of globalization and localization acts as one of the driving policy agenda in Taiwan.

The notion of globalization encompasses a plethora of meanings. According to Mok and Lee (2000: 362), globalization is "the processes that are not only confined to an ever growing interconnectedness and interdependency among different countries in the economic sphere but also to tighter interactions and interconnections in social, political and cultural realms." Governments in Taiwan have endeavored to follow the trend of globalization, especially in education.

CHAPTER 1. TAIWAN'S GEOGRAPHY, SOCIAL, CULTURAL, ECONOMIC, AND POLITICAL SITUATION

INTRODUCTION OF TAIWAN

For centuries, Taiwan was referred to especially in the West as Formosa. At present it is officially recognized in Taiwan as the Republic of China, and in mainland China, as a renegade province of the People's Republic of China. Despite this, it is universally renowned for its breathtaking natural scenery, and its miraculous economic development earned it the title of one of the four Asian Tigers. In the mid-16th century, when their ships passed through the Taiwan Straits, the Portuguese were amazed by the forest-cloaked island, and shouted out, "Ilha Formosa," meaning "Beautiful Island." This marked the first of many encounters between Taiwan and the West. According to the Chinese, Taiwan was called Yizhou or Liuqiu in ancient times, and different dynasties set up administrative bodies to exercise jurisdiction over Taiwan since the mid-12th century. The Dutch East India Company occupied Peng-Hu (an off-shore isle of Taiwan) as a trading harbor base for her East Asian business dealings in the 17th century. In 1622, a war broke out between China's Ming Dynasty government and the Dutch troops. As a result, Taiwan was colonized by the Dutch from 1642 to 1662. After 1662, the Dutch were defeated by a former Ming government official, Zheng Chenggong, who used Taiwan as a military foundation against the Qing government. From 1662 to 1683, Taiwan was under the reign of Zheng's family. In the Zheng family's 23-year sovereignty, Taiwan once again underwent social reconstruction and economic development. It was known as the "Taiwanese Kingdom" or the "Kingdom of Formosa" by the English East India Company (National Institute for Compilation and Translation, 1997).

After 1683, Taiwan came under the control of the Qing Empire when Zheng was defeated by Chi-Lang, a Qing general. It was the first time that Taiwan was reclaimed officially by the Chinese government. In the mid-19th century, the European countries threatened China in the Opium War of 1840 which led to China's loss of Hong Kong until 1997. Although the Qing government took a more positive attitude toward Taiwan's development, Taiwan was ceded to Japan under the terms of the Treaty of Shimonoseki after 1895, and remained under Japanese colonization for half a century.

Taiwan was returned to China after 1945 and once again after the defeat of Japan in World War II. Nevertheless, following the Chinese communist party takeover of

the Mainland in 1949, Taiwan became a shelter for Mainlanders who supported the Nationalist (Kuomingtang, aka KMT) leader Chiang Kai-Shek (Cooper, 2000). Nearly two million Chinese civilians, government officials, and military troops relocated from the mainland to Taiwan.

Over the next five decades (1949–2000), the ruling authorities gradually democratized and incorporated the local Taiwanese within the governing structure. In 2000, Taiwan underwent its first peaceful transfer of power from the Nationalists to the Democratic Progressive Party (DPP). Throughout the period 1980–2005, the island prospered and became one of East Asia's economic "Little Tigers." The dominant political issues across the island remained the question of the eventual unification with mainland China, as well as domestic political and economic reform.

GEOGRAPHY, POPULATION, AND ECONOMY

Taiwan's total land mass occupies 35,980 sq. km. The population growth rate was estimated at 0.63 percent in 2005, with a GNP of NT$463,056 (US$14,032) in 2004 (Directorate-General of Budget, Accounting and Statistics, Executive Yuan, ROC, 2004). According to J.F. Cooper (2000), Taiwan's population is comprised of four cultural and ethnic groups. They are Taiwanese (Hokkien and Hakka) 84 percent, mainland Chinese 14 percent, aboriginal 2 percent. Each group has its own dialect and cultural perspectives. Taiwan used to adopt the doctrine "Three Principles of the People" invented by her founding father, Dr. Sun-Yat Sen in 1905. Since the 1990s, Taiwan has enjoyed a dynamic capitalist economy with a gradual decreasing in government control of investment and foreign trade. In keeping with this trend, some large government- owned banks and industrial firms have undergone incorporation and privatization. Generally speaking, exports have provided the primary impetus for Taiwan's development. The trade surplus has been substantial up to 2004, and foreign reserves were among the world's top 10 in the 1990s. Agriculture contributes less than 2 percent to the GDP nowadays, in contrast with 32 percent in 1952. Taiwan is also one of the major investors throughout Southeast Asia. In addition, Chinese mainland has already replaced the position formally held by the United States as Taiwan's largest export market. Growing economic ties with the mainland since the1990s have led to the successful move of much of Taiwan's assembly of parts and equipment for production of export goods to developed countries.

CHAPTER 2. HISTORICAL DEVELOPMENT OF TAIWAN'S (ROC) EDUCATION

EDUCATION DURING CHINA TIMES (BEFORE 1626)

"Keju (Imperial Examination System) is a kind of examination system in ancient times, through which officials were examined and selected. It was first adopted in the Sui Dynasty (581-618) and lasted through the Qing Dynasty (1644-1911). Intellectuals who wanted to be an official must take multi-tier examinations.

Formal imperial examinations consisted of three levels: provincial, metropolitan and final imperial examination.

The provincial examination was held triennially at the provincial city. Those admitted were called *Juren* (elevated men). The first place is called *Jieyuan*, the second, *Yayuan.*

The metropolitan examination was held in the following spring after the provincial examination at the Ministry of Rites in the capital. Those admitted were called *Gongshi* and the first place, *Huiyuan*.

The final imperial examination was under direct supervision of the emperor of the dynasty. Only *Gongshi* were qualified to take the exam. The matriculation had three levels of excellence. The first level was granted to three candidates, conferred *Jinshi*. The first three names set apart. The candidate ranking first was called *Zhuangyuan* (primus), the second, *Bangyan*, the third, *Tanhua.*

The second level was conferred the *Jinshi* status, the first place called *Chuanlu*. The third level was conferred the *Jinshi* status alike."

(http://www1.chinaculture.org/library/2008-02/16/content_22184.htm)

SPANISH OCCUPATION (1626-1642)

In the early seventeenth century, Catholic Spain was in competition with Protestant Holland for trade in East Asia. With the establishment of a Dutch colony in the south of Taiwan, the Dutch effectively threatened Spanish trade in the region. As a

counter to this threat, the Spanish decided to establish their own colony in the north of the island (Wikipedia).

Other than economic reasons, Spain also wanted to influence East Asia in the religious aspect. At first, only soldiers can enter the aboriginal villages in Taiwan; it was not until the arrival of Father Jacinto Esquivel when missionaries gained the access into villages. In order to make his missionary work easier, he wrote two books on Taiwanese aboriginal languages and education, *Vocabularino de la lengua de los Indios Tanchui en la Isla Hermosa* and *Doctrina cristiana en la lengua de los Indios Tanchui en la Isla Hermosa*. He also founded a Brotherhood in Taiwan （Hermandad de la Santa Misericordia）, and planned on establishing a seminary, which did not succeed (Wikipedia).

The Spanish territory and influence was limited at what are now Keelung, Danshui, and Yilan. The aboriginals mostly accepted Catholicism based on safety concerns, since Spanish soldiers are less likely to harass them if there are missionaries in the villages; the villagers may lose trust or kill missionaries if they visit an opposing village. Moreover, since Spanish missionaries believe that going to China and Japan is more important, they usually didn't stay long in Taiwan, so the Spanish educational influence in Taiwan was not very significant (Wikipedia).

DUTCH OCCUPATION (1642-1662)

The Dutch East India Company occupied Peng-Hu (an off-shore isle of Taiwan) as a trading harbor base for her East Asian business dealings in the 17th century. In 1622, a war broke out between China's Ming Dynasty government and the Dutch troops. As a result, Taiwan was colonized by the Dutch from 1642 to 1662.

One of the key pillars of the Dutch colonial era was conversion of the natives to Christianity. The missionaries were also responsible for setting up schools in the villages under Dutch control, teaching not only the religion of the colonists but also other skills such as reading and writing. Prior to Dutch arrival the native inhabitants did not use writing, and the missionaries created a number of romanization schemes for the various Formosan languages. (Wikipedia).

In order to make missionary work easier, the Dutch established the first school in southern Taiwan on May 26th, 1636. Other than religious contents, the curriculum includes reading and writing aboriginal languages in Latin (Zhen, 2004). The school had three categories of students: children, adult men, and women; only male students were able to receive lessons in reading and writing. Lessons were mostly carried out in aboriginal languages in order for the students to understand, but after 1648, schools started teaching Dutch, along with establishing traditional Dutch time tables and

requiring the aboriginals to have Dutch names and clothes.

The teachers include missionaries, soldiers, and aboriginals. In 1659, a seminary was established to train aboriginal teachers; there were only 30 openings and students had to pass an examination to gain entrance. The introduction of Roman letters was a significant change for Taiwanese aboriginals.

JAPANESE COLONIZATION (1895-1945)

Prior to the colonization of Japan, there were some forms of primary, secondary, and specialized schools for different purposes. Under the Japanese rule, a formal education system was established in 1919. Before then, the Japanese government issued the "Taiwanese Education Act" that divided the education system into four categories: general, vocational, specialized, and normal (teacher) education. At the general education or primary level, there were public schools, upper general schools, and girls' high schools. All of these admitted children between the ages of 7 and 13. Students were to learn knowledge and skills for life and basic needs. However, it was only until 1943 when the six-year compulsory education was implemented. By that time, the enrollment rate for primary school level in Taiwan was 71.3 percent versus 99.6 percent for Japanese children (among the highest in Asia).

In 1922, the American "six-three-three-four" system was implemented in mainland China: six years in elementary school, three in junior high, three in senior high, and four in university.

CHAPTER 3. EDUCATION DURING LIBERATION/POST-COLONIAL EDUCATION (1945-1987)

After World War II, when Taiwan was returned to China, an Act regarding compulsory primary education in Taiwan was issued in 1947. By 1968 compulsory education was extended to 9 years and by 1984, both the primary and secondary education enrollment rates had reached over 99 percent (Directorate- General of Budget, Accounting and Statistics, Executive Yuan, ROC, 2005)

Since the 1950s, Taiwan encountered political and military uncertainty across the Straits, but between 1957 and 1980, the emphasis shifted to the planning and development of human resources in tandem with the national goal of economic development. Additional challenges to the education system came in response to the forces of economic liberalization and globalization which have transformed Taiwan since the 1980s.

Under the Japanese administration (1895–1945), the purpose of Taiwanese education was to assimilate local people into the Japanese culture. After 1949, the priority was changed to the strengthening of Chinese identity as a mean of preparation for the reassertion of sovereignty for China over Taiwan. During that period of time, indigenous Taiwanese cultures and languages were banned especially after the“228(February 28th) incident” in 1947 which involved the violent suppression of the KMT troops towards the Taiwanese people. Since the late 1980s, Taiwanese society has gone through a period of localization involving the renovation of Chinese identity with Taiwanese heritage and tradition. These trends of indigenization or the so-called localization actually stems from historical complaints against the KMT authoritarianism.

Education has been highly valued in Taiwan and a key item on the policy agenda of the ROC after the Kuomintang government's relocation from the mainland to Taiwan in 1949. The promulgation of educational legislation by the central government framed the foundation for the nation’s on-going educational development and achievement. For example, the nine-year compulsory education, which was first initiated in 1968, is a milestone in contemporary Taiwanese education history for its significant impact on the development of the nation’s human capital. All levels of education institutions have experienced dramatic growth in student and school numbers since the implementation of the Nine-year Compulsory Education program in the late 1960s. The Education Basic Law (the Law) came into force in 1999 to fully

protect people's right to education, and entitled the Government to extend the period for compulsory education from the current nine years to twelve years. According to Yang (2001), the Law acts as the cornerstone of fundamental educational innovations in the millennium.

Since the 1980s, the economy of Taiwan has grown rapidly and the political stability in Taiwan has provided the Government with a safe ground to pursue democratization, pluralism and liberalization in every socio-cultural sphere (Yang 2001). The current education system therefore reflects the social, political, and economic status of Taiwan, moving towards a more comprehensive system in the field of education.

CHAPTER 4. AGE OF EDUCATIONAL RESTRUCTURING (1987-1994)

During the political transition period of the 1990s, the former president Lee Teng Hui tried to incite a Taiwanese independence movement against China. Since then, education has focused extensively on local issues and Taiwanese identity such as the declaration of calls for the country to be known as Taiwan rather than the Republic of China, the shift of textbook content in elementary and secondary schools from Chinese to Taiwanese issues, and the increased proportion of “Taiwanized” national civil service examination questions. Taiwan’s educational system also entered an era of transition and reform as the nation’s industrial structure shifted from a labor-intensive to a capital and technology-intensive base, and political democratization intensified.

CHAPTER 5. EDUCATION REFORM ERA

(FROM 1994 ONWARDS)

The 'controversial reform stage' (1994 to date) has been characterized by numerous negative public opinions against educational reform programs. Chou (2003) and Hwang (2003) identify some of the problematic reform areas, including:

1. the presence of seven Ministers of Education between 1987 and 2003, which resulted in discontinuity and conflicts between various reform policies;
2. the lack of small-scale pilot or trial studies on reform practices;
3. lack of in-service teacher training;
4. miscommunication and misinformation among schools, parents, and the government; and
5. increasing gaps between the urban versus the rural, and the rich versus the poor have also aroused great concerns in the country.

Yang (2001, 15) also argues that some of these problems are rooted in ideological conflicts behind education reform measures, the imbalance between competition and social justice, and the tussle for power among the private sector, parents, schools and government. Other problems are connected to the lack of new norms to maintain educational excellence, the shortfall of educational budgets, the crisis of teacher professionalism, and the lack of recognition of the school as the center for change (Pan and Yu, 1999, 81-2).

In conclusion, education in Taiwan has been used as one of the most influential avenues for national building and economic development. Based on the influences of Japanese educational practices and ideals during the colonization period, Chinese culture and Confucian traditions from Mainland China, Taiwanese schools have experienced dramatic increases in enrollments. However, the pressure for credentialism and for examinations has remained constant through the 20th Century. Many educational innovations have been launched to deal with examination systems, curricular contents and instruction, and to reduce government ideological control. In doing so, teachers will have more flexibility for self-governance and autonomy to accelerate students' creativity and thinking skills for the 21st Century. Nevertheless, the increasing discrepancies between income distribution and resources between urban and rural areas, the dilemma between the pursuit of education quality versus quantity, and the balance between localization and internationalization have created numerous challenges and foreseeable risks for the people of Taiwan.

What will happen in 2020 if Taiwan continues to maintain the *status quo*?

What will happen to the next generation of Taiwan after a series of nation-wide education reforms? What are the follow-ups and outcomes? Who benefits and who suffers as a result of reform activities? These unanswered questions are not uncommon to for education systems in many countries around the world. As Taiwan actively participates in global events, how Taiwan learns from her education experiences in the reform era deserves more attention.

CHAPTER 6. TAIWAN HIGHER EDUCATION AT THE CROSSROADS: ITS IMPLICATION FOR CHINA

INTRODUCTION

Since the 1980s, the education systems of Europe, and North and South America have faced a revolution, initiated by the adoption of neo-liberal free market economic policies and a consequent deregulation of education (Giroux, 2002; Dale, 2001). This has variously been realized through the restructuring and deregulation of public education, undertaken to increase the relative autonomy and responsibility of individual institutions, accountability and efficiency. Under these regimes institutions are expected to become more competitive, creating a competitive education market system. Under the impress of international agencies such as the International Monetary Fund (IMF) and World Bank (WB) these neoliberal policies result in increasing private investment for education and supervising higher education institutions (HEIs) through the norms of more standardized and transparent accountability (Chou, 2005).

Under neo-liberal policies universities have shifted from norms of traditional state-control to those of state-supervision. Government's role of initiating rules and regulations for HEIs now consists largely of specifying HEI funding standards. Market-oriented higher education is increasingly focused on issues of "competition" and "deregulation" including: developing performance-based funding schemes, increasing competition for faculty and student accountability, relocating social resources between HEIs, encouraging self-fundraising by universities, setting up more private institutions, and raising tuition fees. The policy sector holds that adopting market-oriented policies elevates the competitiveness of universities, induces cost-effective behaviour among HEI's, and increases efficiency for better education quality. These actions, it is held, improve autonomy within universities, and in the long run, can increase student awareness of their rights as consumers of an educational product.

The following discussion embraces Taiwanese and Chinese higher education

reforms since 1990s, as they have strong cultural similarities and are responding to common domestic and foreign trends in the region. Their attempts to upgrade the world-class universities in each country are also controversial, due to the perceived influence of a strong neo-liberal ideology.

HIGHER EDUCATION IN TAIWAN

After the lifting of martial law in 1987, higher education in Taiwan entered a stage of dramatic growth, part of a remarkable social and economic transformation. The number of universities and colleges expanded two- to three-fold over the past decade. Increasingly numbers of government supported students were viewed as a public sector burden. Successive governments introduced market-oriented reforms to relieve government budgetary pressures and grant the HEI's greater autonomy. Inspired by Japanese education reforms in the 1980s, the Taiwanese government set up an Executive Yuan Educational Reform Committee (1994-96), amended The University Acts in 1994, revised them in 2005 based on deregulation, and pushed institutional administrative funds onto public universities (1996) to increase efficiency. These measures sought to introduce market dynamics into Taiwanese higher education.

HIGHER EDUCATION IN CHINA

China also underwent a dramatic change as a result of implementing a market economy and open-door policy in the early 1990s. To respond to the demands of rapid economic growth (averaging 8% GDP growth per annum over two decades) as well as international competition, Chinese higher education changes included: rapid expansion of enrolments, structural reforms, deregulation, privatization and quality improvement (Huang, 2005; Min, 2005).

Traditionally focusing on elite education, the Chinese government has shifted its attention to the improvement of education quality at the primary and secondary levels. Simultaneously massive restructuring of HEI's took pace in an effort to increase shared responsibilities and relocate powers to the provincial and local levels. While funding from the Ministry of Education (MOE) and other central government agencies remains the main source of financing for universities and colleges, massive higher education enrolments in higher education and continued marketization have led to calls for more deregulation and social responsiveness within HEIs.

I. Development of Higher Education in Taiwan and China

Taiwan's institutional expansion

The revision of the University Act in 1994 transformed the traditional centralized system of bureaucratic control of the Ministry of Education into a more self-reliant and autonomous environment for HEIs. It also reduced MOE power and responsibility for university academic and administrative operations in presidential appointments, curriculum guidelines, student recruitment, staffing, and tuition policy, fulfilling the goal of academic freedom of autonomy (Tsai, 1996).

The number of Taiwanese universities and colleges HEIs has grown rapidly over the last decade from 58 in 1994 to 147 in 2005. (See Table 1)

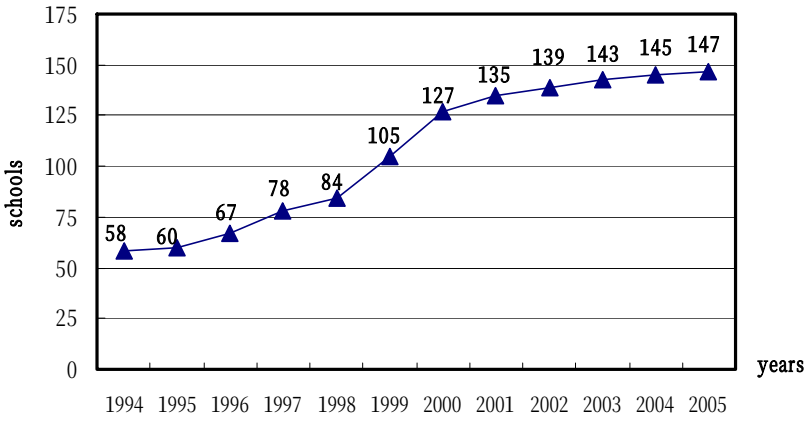

Table 1 The Numbers of Universities in the year 1994-2005 in Taiwan
Source: Bureau of Statistics, MOE (http://140.111.1.192/statistics)

The ratio of public to private institutions at 1:1.94 (54:105) (MOE, 2006) indicates that HEI expansion is mainly due to increases in private institutions, which now accommodate more than 60% of the student population and charge twice as much for tuition than the public universities. In Taiwan, public institutions are regarded as more prestigious than their private counterparts. Most HEI expansion since the 1990's, it has been argued, occurred largely by upgrading existing institutions (especially private, two-year and three-year vocational colleges), although other strategies, such as splitting, merging, and increasing the size of the existing institutions, also resulted in "new" institutions (Tsai and Shavit, 2003). Institutional expansion has been accompanied by dramatic growth in the net higher education enrolment rate among the 18-22 age cohorts, particularly among female students (who now constitute more than 45% of enrolees). University student enrolments have doubled since 1998 (See Table 2).

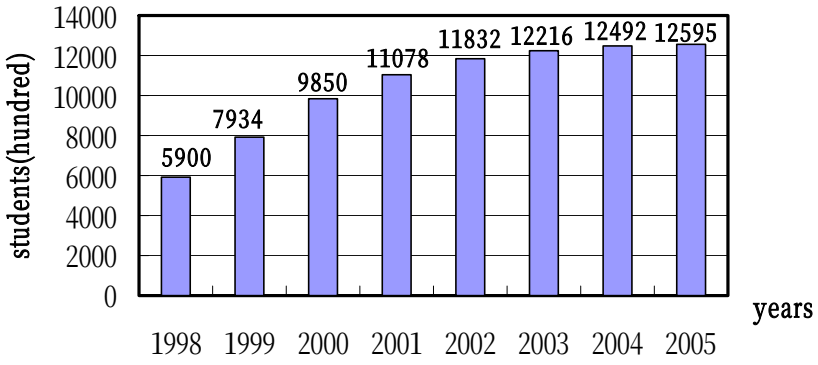

Table 2 The University Student Enrollment in Taiwan
Source: Bureau of Statistics M.O.E. (http://140.111.1.192/statistics/)

China's institutional expansion

In 2004 China's higher education system included more than 1,000 regular full-time universities and colleges, and almost the same amount of new private HEIs (See Table 3). Predominantly public HEIs receive about 12 million students and the newly established private universities enrol more than one million students (See Table 4). This paper focuses on regular full-time universities and colleges in China (Min, 2005).

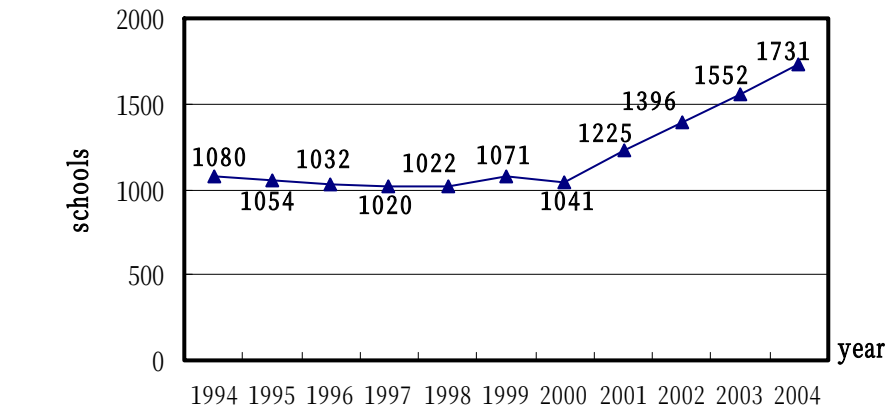

Table 3 The Numbers of Universities in the year 1994-2004 in China
Source: Nation Bureau of Statistics of China (http://www.stats.gov.cn/)

As in Taiwan, Chinese higher education restructured and expanded during the 1990s. Before 1998, of over 1000 universities, 367 were governed by 62 ministries of the State Council. After a series of HEI mergers and, the MOE and some special government committees and departments now have authority to govern directly only

100 universities in the country; the rest have become the responsibility of local governments. Through the process of "restructuring, cooperation, and incorporation over the HEIs", a total of 597 institutes merged into new universities. These actions represent some progress in responding to induced global de-regulation and accountability. (Fang & Fan, 2001).

Student enrolment growth over the past decade has significantly altered the composition of Chinese higher education. The 1998 figure of eight million HE students (including full-time and part-time students) amounted to, less than 10% of the gross enrolment rate every year. After 1998 university enrolment increased up to 40% annually. By 2005, student enrolment in HEIs exceeded 23 million enrolments or 13 million full-time students, with the gross enrolment rate over 21%. This enrolment expansion resulted from actions by central government who instituted policies seeking to reduce the youth unemployment rate and encourage more educational consumption by expanding university capacity. (MOE of PRC, 2004). (See Table 4)

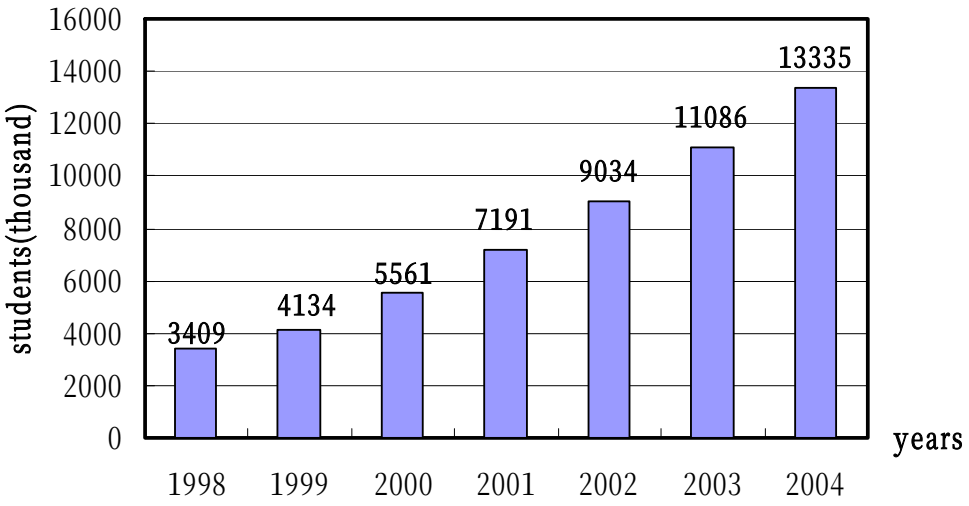

Table 4 The University Student Enrollment in China
Source: National Bureau of Statistics of China (http://www.stats.gov.cn/)

II. Responding to Market Economies

Taiwan's Responses

Seeking to install market mechanisms in the higher education environment, MOE and the Executive Yuan Education Reform Committee, formed in 1994, explored the employment of several market mechanisms within higher education, most urgently calling for deregulation. By granting HEIs more autonomy, the predominant government role changed from regulator to facilitator. Government no

longer intervenes with direct administration over public HEIs, instead supervising them through the University Act and other state laws. As frequently the case in the UK, Germany and Japan, government funding is no longer guaranteed and some actions toward incorporating public universities are under way. Following the Japanese Public University Incorporation Law in 2003, the Taiwanese MOE coincidently initiated a proposal to incorporate public universities. This act enabled some of the chosen and voluntary universities to transform into more independent, cost-effective and autonomous entities under the protection of law. Consequently, universities are expected to assume more financial responsibility and move toward a merit-based system in personnel decisions and calls for university accountability and efficiency are evident and stated repeatedly throughout government.

In 1999 the MOE in Taiwan initiated the "Project for Pursuing Excellence in Higher Education" in 1999, followed by the launch of a "White Paper Report on Higher Education in Taiwan" four years later. This paper sums up the latest developments of higher education in Taiwan and recommends a wide range of measures to achieve excellence in higher education, including the introduction of a university evaluation system, the establishment of a university financing committee, university merging and the increasing international exchange programs among faculty and students.

Taking university financing reform as an example, Taiwanese authorities proposed to change the ratio and method in funding, and encouraged public universities to search for alternate ways in raising revenue (Ministry of Education, 2006). Programs for continuing education, encouraging more cooperation with enterprises for sponsorships, setting up joint ventures on campus with outside business world all mushroomed within HEIs across the country (Dai, Mok, and Hsieh, 2002). The result is a very different campus culture in which faculty and administrators are driven to seek more resources with declining funding.

In addition, these government bodies sought to create greater heterogeneity among HEIs, suggesting that they should be differentiated respectively by their own characteristics, and mission. For example, faculty salary scales that might better be based on seniority are viewed as insufficient to promote the desired competition. To increase faculty competitiveness in HEIs, the committee suggested a more accountable reward system. The MOE also attempted to lessen its control over the establishment and enforcement of curriculum requirements, and has set up guidelines to allow for competing resources as well as financial subsidies based on merit and performance.

Although many critics remain sceptical of the picture that the Education Reform Committee (1994-96) and the White Paper Report portrayed (2003), most of the

policies recommended in the reports later became mandatory and were put into practice regardless of the initial resistance from HEIs. Universities and colleges now experience increasing pressure from the market and government in competing for resources, funding and student recruitment. Meritocracy, accountability and networking among faculty and staff carry more weight than before.

China's Responses

Among all the major changes within Chinese HEIs in response to the worldwide market economies, structural reforms deserve close attention. A series of new educational policies has been launched over the years that reduce governmental involvement and increase the responsibilities to be exercised by universities in order to meet the needs of the society.

Higher education in China has historically been strongly administered by the central and provincial governments in the centrally-planned economic system prior to the 1990s. As a result, HEIs were immune to responding to any social changes or global competition and has long been criticized as "irrational, irrelevant, and segmented." (Fang & Fan, 2001) Therefore, the structural reform and adjustment of the higher education system became one of the top priorities including a release of Higher Education Act in 1998 .This act detailed a two-level education provision system with an attempt to differentiate responsibilities between different levels of governments, and university's responsibilities in resource generation, funding allocation, and student recruitment. (Dai, Mok, and Hsieh, 2002). Specific reform programs were implemented such as change of the government/university relationship (Huang, 2005; Min, 2005), and institutional mergers. One example being the emergence of the new Zhejiang University from five neighbourhood universities later to become one of the leading comprehensive universities in China.

Moreover, university curriculum reform has come under revision. Universities have been criticized for providing overspecialized and fragmented knowledge which prevented students from embracing well-rounded development and practical knowledge for the job market. In response to this problem, curriculum reforms that took place across Chinese universities after the late 1980s introduced interdisciplinary studies, general education, and many more market-oriented programs along with reforming teaching and learning process. Universities are also undergoing a series of re-organization among different programs, disciplines, departments, and even administrative offices.

In addition, a new University finance reform was underway. In the past, Chinese HEIs were public-funded and charged no tuition for students who later received government jobs. University faculty, as public officials, received humble salaries

based on seniority rather than performance, and HEIs could admit only a limited number of elite students through a highly competitive college entrance examination. As Chinese higher education enrolments expanded rapidly over the past decades, the publicly-funded system was forced to reconstruct due to its financial constraints (Min, 2005.11.10). A cost-sharing and cost-recovery system among central and local governments and the universities was adopted to reduce the former public funding model. Universities began to charge tuition and fees around the mid-1990s. At present, more than one-fifth of the total operational budgets of HEIs are covered by tuition and fees.

In addition, universities now can generate their own revenue by issuing patents, copyrights and contracts with industry, conducting business consultation, offering in-service training programs, and launching fund-raising activities. Leading universities like Peking and Tsinghua University also generate revenues by setting-up university-affiliated high-tech companies in China. In the year 2000, of the total expenditures of Chinese higher education, 57% came from state appropriations, 22% from tuition and fees, and the remaining 21% from revenue generated by the universities themselves (Min, 2005).

In addition, a salary-scale renovation was introduced detailing different formulas for job performance among faculty members to recognize their merit rather than seniority. Research and publication is highly encouraged, as well, and integrated into salaries at leading Chinese universities.

Another major reform in China over the last decade has been the re-establishment of private higher education (so-called *minban* or non-state-run higher education). In an attempt to combat the enrolment shortage of public institutions, the Chinese government implemented policies deregulating the private sectors to increase university enrolment rates from 3% to 14% of the college age cohort by 2002. Although most of the private HEIs remained as short-term and vocational-oriented programs, some of them later developed into comprehensive and competitive HEIs. Currently, there are over 1,200 private universities and, enrolling over one million students. However, only about 5 % of these institutions have been officially accredited by the government to grant university diplomas. A new law regarding the legal status and management of private education was issued and implemented for the first time in 2003, recognizing the contribution of private sectors and the return rate permitted to be granted to the investors.

Finally, a major reform needing mention is the abolishment of the governmental job assignment policy among college graduates in the mid-1990s. Like their counterparts in most countries, Chinese university graduates currently enter a competitive job market with qualifications rather than depending on governmental

arrangement. As market economies develop, a university education is expected to be more responsive and relevant to social needs and the job market. Programs and courses have been revised based mostly on practical and market values, instead of theoretical and pure-science subjects. Programs such as economics, finance, law, industrial/commercial management, foreign languages, computer and applied technology have been more popular. Consequently, students in China now pay more attention to their future job market prospects and career development than their own interests and academic potentials (Dai, Mok, and Hsieh, 2002).

III. Specific Actions toward more competitive universities

Taiwan's initiatives

The introduction of market mechanisms into universities means the transformation of higher education from a public good to a private commodity. In its efforts to decrease government control and integrate social demands with market forces, Taiwanese higher education since the 1990s has been significantly influenced by neo-liberalism thought and policy.

As a result of the introduction of free-market economy principles and neo-liberalism policies in 1990s, the proportion of financial support from the MOE has decreased 23% in the last decade, whereas the proportion of tuition income has increased 6% (Sun, 2006.12.12). Accordingly, an "administrative funding scheme" was introduced into public universities to improve their accountability. No longer relying on government budgets alone, public (or so-called "national") universities are required to designate partial funds for sharing their daily administrative costs. Nevertheless, the MOE and other government budgeting offices still have the right to regulate various university practices. A trial program based on these principles within five universities was introduced by the central government in 1996. Now 55 out of 70 public universities participate in this new program, allowing more autonomy in resource allocation (See Table 5).

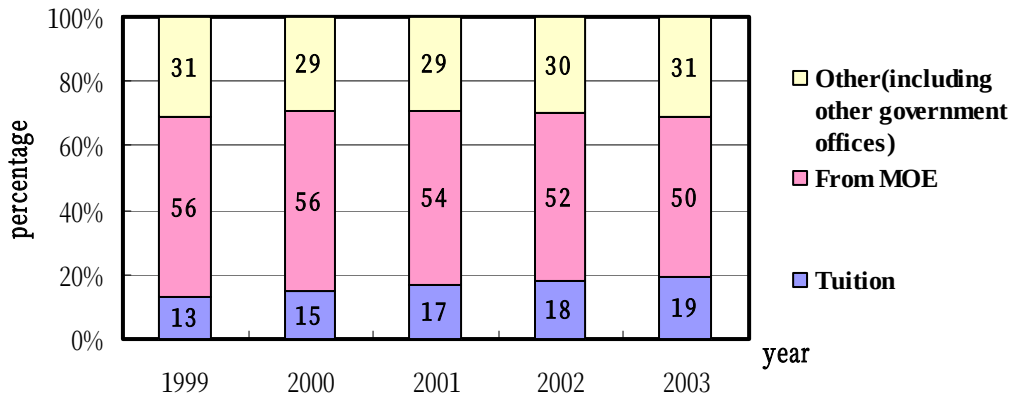

Table 5 Source of Administrative Fund for Public Universities in Taiwan

In order to become more financially self-sufficient, leading universities undertook an unprecedented fund-raising campaign, gathering donations from their alumni, the general public, and business. However, many institutions have been less than successful in obtaining significant support from these sources. HEIs such as new public universities lack strong networks with their newly-graduated alumni.

Teachers' Colleges (now re-classified as education universities) suffered from a shortage of strong alumni donations. Above all, the Taiwanese general public is not used to donating money to universities (public institutes especially) because the latter have been regarded as a public good, funded solely by the government. Therefore, a huge discrepancy in fundraising arose between the well-established HEIs (especially those with a comprehensive and science/engineering background) and the less prestigious/small-scale universities. Higher education quality skewed drastically according to different institutes (See Table 6).

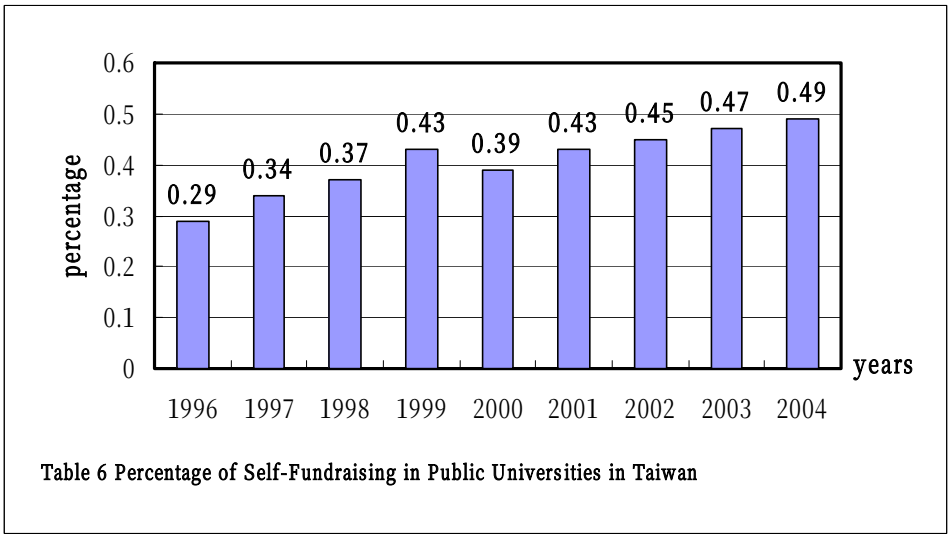

Table 6 Percentage of Self-Fundraising in Public Universities in Taiwan

In another attempt to provide universities with more incentives for pursuing excellence and to offset declining quality due to rapid expansion and public budget cuts, the MOE promoted a "World Class Research University Project" in 2003. This proposal aimed to upgrade at least one of the HEIs in Taiwan to rank among the world's top 100 universities based on international journals within the next ten years. Consequently, a "Five-year, Fifty Billion Budget" plan (est. 1.6 billion USD) was launched among several selected prestigious public and private HEIs in early 2006 to improve fundamental development, integrate human resources from different departments, disciplines and universities, and establish research centers to pioneer specialized interests. In addition, universities now are required to establish an internal and external evaluation system using various indicators such as the Science Citation Index (SCI), Social Science Citation Index (SSCI), and the Engineering Index (EI) etc., in accordance with standards that meet international recognition for awards, achievements, and contributions within their field of expertise. A non-governmental organization (NGO), The Higher Education Evaluation and Accreditation Council of Taiwan , was established in December, 2005 to conduct external evaluations across universities on a regular basis (Chang, 2005.12.26).

Chinese initiatives

The Chinese government has launched similar projects in an attempt to enhance international competitiveness among universities. To achieve the goal of "100 leading universities, research centers, and disciplines across China in the 21st century", the Chinese government started its "211 Project" in 1995. The project's main emphasis is to develop a group of HEIs that will compete to enter the ranks of the top world-class universities (MOE of PRC, 2004). The project will choose 100 universities from applications from across the country. In order to develop criteria and data to assist in selecting these 100 HEIs, the government started an evaluation process based on measurements of faculty quality and productivity, facilities, libraries, laboratories, research quality, university resources and many more criteria. Consequently, Chinese HEIs began a series of institutional mergers. After five years of this merger experience, many newly-established universities are developing the basis upon which to be highly competitive in acquiring national prestige. One example, previously mentioned, is Zhejiang University which now ranks among the top five universities as a result of a merger with local HEIs and funding by many of the aforementioned projects.

Subsequent to "Project 211", another, labelled "Project 985", was developed in an attempt to push Chinese higher education to a new level. The idea originated from a speech by the former General Secretary of China, Jiang Zemin who attended the

100th Anniversary of Beijing University in May 4, 1998, and proclaimed that "China must have a number of first-rate universities of international advanced level" (Hayhoe & Pan, 2005). Consequently, the MOE of China has signed agreements with nine top HEIs in China such as Peking University, Tsinghua University and Shanghai Jiao Tong University, hoping to upgrade Chinese universities to the standards of Harvard University, London University, Tokyo University and the like. With full financial support from the central and local governments, these nine institutions are expected to blossom over the next few years. Top funding priority was given to Peking University and Tsinghua University, ranked as 14 and 28 respectively among the world's top leading universities according to the Times' Higher Education Supplement (World University Rankings, 2006). It is also expected that these leading universities will be able to serve as examples to improve Chinese higher education.

In another effort to upgrade their overall quality and reputation, many Chinese universities have established exchange programs with international universities intended to broaden the horizons of faculty and students. It is also considered an "asset" to increase student enrolments in the university. Universities which go for international exchange programs are concentrated in areas like Peking, Shanghai, Tianjin, and other metropolitan and coastal cities in China that are more accessible to the outside world. It is estimated that approximately a half million students and scholars have gone to study abroad in the past 20 years, as more international academic exchange programs and joint research programs have been set up both domestically and abroad. As China continues its open-door policy, more internationally-oriented programs, such as international studies and foreign languages, have become very popular on university campuses. At the same time, more international exchanges and collaboration between Chinese students/scholars and international counterparts are taking place.

IV. Challenges and Comparisons

Taiwan's dilemma

The road to reform in higher education in Taiwan and China as well as their related pursuit to achieve world class standards has revealed significant challenges that both countries must confront and overcome to achieve these goals. For example, the introduction of market economies in the early 1990s, followed by deregulation of government control over the new HEI establishment, has resulted in an unprecedented expansion of higher education in Taiwan. More HEIs now compete for less and less resources and public funding. Mixed results have occurred in terms of educational quality, efficiency and equity. Universities are more accessible to younger generations

than before, but the increasing tuition and declining educational quality, coupled with the drastic decline of fertility rate in Taiwan has aroused another concern about the over-supply of university graduates in the job market.

Challenges on these issues are as follows (Blumenstyk, 2001, 2002; Chou, 2005; Giroux, 2002; Slaughter, 2001):

- The new changing role of university from being highly regarded to the concept of "user pays" rules has forced many HEIs to tailor their programs and coursework according to perceived market needs. Students tend to take courses with "practical outcomes", rather than for personal fulfilment. Teaching faculties are viewed as academic entrepreneurs, treating professional knowledge as a matter of business, rather than engaging in academic pursuit for truth and discovery. Owing to the massive expansion of HEIs and consequent shrinking public budget in the past decade, universities now need to compete for external funding opportunities from the business world. Trade-offs are the possible external corporate intervention with university operations, curriculum design, and personnel appointments.
- In addition, the increase in public and private HEI tuition has become a heavy burden for many students across Taiwan. From 1997 to 2006, tuition at public universities has increased approximately 42%, while private universities have experienced a 14% increase (on an already high cost base). The average salary has increased only about 8%**.** Taiwanese families (GDP=13,500 USD in 2005) have to bear such high costs, especially for students who attend private institutions. The latter make up about 66% of the total universities and colleges in Taiwan (See Table 7).

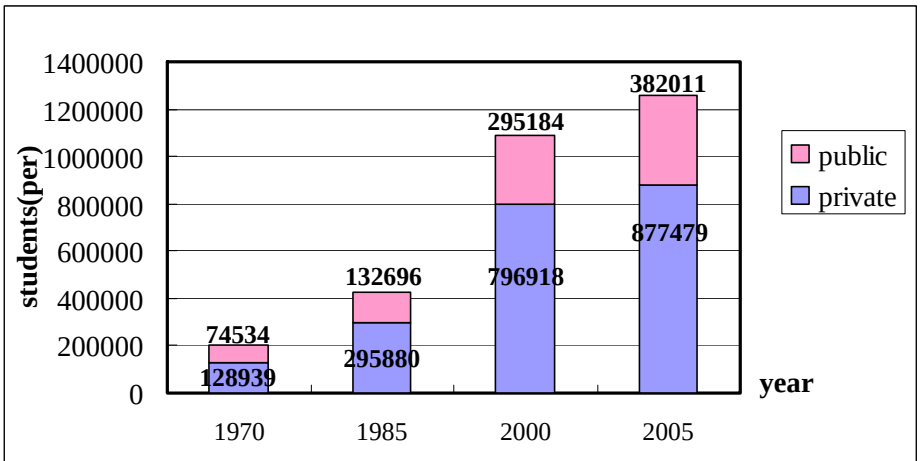

Table 7 Public and Private Universities Student Growth in Taiwan
Source: Bureau of Statistics, MOE (http://140.111.1.192/statistics)

In sum, Taiwanese higher education has undergone a drastic change with the introduction of a market economy ideology, the expansion of HEIs, and public

financial constraints since early 1990s. Taiwan's access to the World Trade Organization (WTO) in 2002 has created a more competitive international environment in which the educational sector is regarded as a trade service without national boundary. With limited education resources and an over-supply of college graduates with diverse qualifications, higher education institutes encounter an uphill challenge and competition within both domestic and international arenas. More university restructuring efforts will take place through institutional expansion, mergers, and evaluation, based more on market considerations than on social equity concerns.

China's challenge

Since the mid-1980s, China, as a former socialist country, has undergone a variety of changes in the political, economic, and other social domains. In particular, the adoption of market economies along with the open door policy became the major force in Chinese higher education reform (Ngok & Kwong, 2003). For example, privatization (sometimes appearing in different forms) in China as part of the reform agenda has been encouraged with the following characteristics: private economic activities receive more support within a climate of increasing deregulation; activities and wages from the public sector have been cut substantially; and more policies aiming for export growth and industrial development have taken away from state responsibility for social welfare in public health, transport, communications and education in particular (Mok & Welch, 2003).

As a result, these economic and political changes shifted the academic climate completely. Higher education reforms since the 1990s have helped to relinquish state governance and responsibilities previously held by the central and local governments. Universities assumed more responsibility and accountability for their daily operation, while government monitored succession planning, overall structural development, and resource allocation. Mixed results of such deregulation and privatisation policies have emerged with the increase of campus autonomy and financial freedom, especially from those leading HEIs. For example, many university faculty members now have the opportunity to seek additional income from other resources to compensate their relatively low salary. A survey indicated that a common phenomenon arose after China's economic development in the 1990s. University faculty, especially those from coastal and leading institutes, have been driven by market forces to concern themselves with activities other than teaching and research. Many professors now take part in projects or provide training services for private institutes or companies, generating more external revenues for their institutes and themselves.

Another issue deserving consideration is that as China's economic growth continues, leading HEIs have been provided with increased funding for facilities and basic infrastructures. Because these universities have traditionally had the privilege of obtaining additional funding from governments, many of them have had enormous investments in their physical plant, bringing them to world-class level. These HEIs have benefited from the special government funding policy by over-investing in their building construction and material realms, neglecting their internal substance. This phenomenon marks the paradox of a Chinese university, rich in hardware and material range, but poor in software and academic scope, a climate that parallels the improvement of institutional autonomy and freedom. Nevertheless, the Chinese government has recognized this problem and begun to reform the university reward and funding system with salary and promotion scales, providing greater initiatives for institutional accountability and personal growth in research publication and job performance. As a result, Peking University was chosen to rank among the top 100 world-class universities in October, 2006, by the Times Higher Education Supplement from London. This recognition has rewarded Chinese endeavours in upgrading their universities over the last decade, although scrutiny remains about the validity and credibility of university rankings (Ho, 2006).

After China' s entry into the World Trade Organization in 2001, an increasing demand for globalizing higher education, such as cross-cultural interactions and exchanges of students and faculty members, has resulted in an even greater pressure on the irreversible internationalizing trend in Chinese higher education (Min, 2005). In an era of rapid advancements in science and technology, Chinese universities have been called on to play a central role in knowledge-based economic development.

Comparison

Taiwan and China, though distinct in political, social and economic background, are following the global trend of reforming higher education in market-oriented directions. In comparing the distinctive features in higher education between these two societies after the 1990s, the former aims for deregulation and diversity within the system, competition to gain management efficiency, and integrating societal needs as a way of responding to the market economy. As for China, especially after 1992, the major concern has been to pursue economic efficiency and prosperity rather than ascribe to social equity norms that had once been so strongly articulated in China. The following discussion will highlight some of the comparative issues between Taiwan and China (See Figure 1).

Reform policy	Taiwan	China
Reform features	*.deregulation, efficiency and diversity resource polarization between universities and areas. Political democratization after the lift of Martial Law in 1987 .Bottom-up movement and social pressure for change*	*. efficiency and prosperity .less concerned with social equity .discrepancy between inland and coastal areas, poor and rich .Economic open-door policy after early 1990s .Government top-down policy*

Reform origin		

Policy package for Funding and promotion as reform incentive	*.The Award for university teaching excellence in 2000 .World-class research university project in 2005 (5 year, 50 billion NT Plan) .SSCI, SCI, EI Journal article phenomenon*	*.211 Project in 1995 .985 World-class University Project in 1998 .SSCI, SCI, EI Journal article phenomenon*

Reform policy	Taiwan	China
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Reform origin		

Policy package for Funding and	*.The Award for university teaching excellence in 2000 .World-class research university project in 2005 (5 year, 50 billion NT Plan)*	*.211 Project in 1995 .985 World-class University Project in 1998 .SSCI, SCI, EI Journal article*

promotion as reform .SSCI, SCI, EI Journal article phenomenon
incentive phenomenon

Figure 1 Comparison between Taiwan and China

1. Origin of higher education reform

Changes in Taiwanese higher education have taken place in the context of political democratization, the lift of Martial Law in 1987, and a process of economic restructuring from a labour-intensive to a science and technology industry in the early 1990s. Higher education was in demand for its capability to provide modern citizens with creativity as well as to meet the need for new manpower. On the other hand, Chinese higher education reform originated from the open-door policy and the introduction of a market economy after the early 1990s (Huang, 2005)**.** As the Chinese economy expanded (an average annual GDP growth rate of 8% for the past two decades), the high demand for economic reforms and an open-door policy have helped the Chinese economy to become more integrated into the international economy. Consequently, Chinese higher education has been marked for major change to improve national development and manpower,.

Specifically, differences between the two nations under the market economies date from Taiwan's lifting of political martial law in 1987, a change that created a social environment for education innovation and openness. Government as well as the general public took complementary roles in developing initiatives for higher education reform. Comparably, China started her reforms following open-market economy policies in the beginning of the early 1980s and accelerated its reform scale in the mid-1990s as the economy developed. Nevertheless, the leading authority of higher education in the aspect of policy and resource in both countries is still confined to the government, although public opinion counts more heavily in Taiwan due to political democratization since the late 1980s.

2. Reforms linked with funding and promotion scales

Unlike China's rapid economic growth during the past two decades, Taiwan's economic growth has remained relatively stable in the past few years. This economic reality together with the expansion of HEIs in Taiwan, has placed an enormous

financial burden on both public and private institutions, and shifted the focus and culture of the profession. For example, in order to enforce a competitive mechanism for institutional and individual funding, the government sets up evaluation criteria based on quantitative indicators and require HEIs and faculty to comply. One key element for accountability depends on the number of journal articles published in the SSCI, SCI and EI databases. This western-dominant evaluation standard has created tremendous pressure on university faculty who now seek more short-term research outcomes as a means to fulfil the criteria for public funding and the self-evaluation process. A series of standardized evaluation systems have been introduced in both nations combining funding and salary scales. The over-emphasis of publication quantity rather than quality, journal articles rather than books, and research over teaching, has driven HEIs to fall into a quasi-corporate world full of external insensitivities and competition rather than an educational entity.

In addition, the bid to raise external revenue coupled with continuing evaluation demands at personal as well as institutional levels has transformed Taiwanese HEIs into market-driven entities. The emerging trend for university faculty to act as academic entrepreneurs at the expense of their role as public intellectuals seems unstoppable. The hope that education reform will facilitate academic autonomy and serve the public seems less and less attainable in an era of academic capitalism.

3. Over-emphasis on pursuing -“World Class Universities” policies

In order to align with international competition and the revolution in information science and technology, universities today are expected to gear towards knowledge-based institutions (Castells, 1991). Taiwanese and Chinese governments have, therefore, initiated policies not only to expand higher education enrolments but also to upgrade some leading national universities to world-class status. These attempts include the ‘World Class Research University’ project in Taiwan and the ‘211 Project’ and ‘985 World-Class University Project’ in China -- have created mixed results. Because public funding has only been allocated to selected universities, the increasing disparity of educational quality has accelerated between public and private, and leading and regular HEIs. It is clear that the new higher education framework in both countries has been prioritized more on accountability and market competition in quantitative terms than on social equity and equality values. These “world-class universities policies” have been characterized as duplicating Western and American university models whose “cultural imperialism” and “cultural reproduction” will, in the long run, impair both societies’ cultural identity and heritage (Hayhoe, 1989; Ho, 2006).

V.Conclusion

As discussed above, higher education reform after the early 1990s in Taiwan and China has followed a similar transitional pattern along with the global expansion of neo-liberalism ideology. Reform policies took various forms, such as deregulation of government control, privatization of public services, introduction of accountability and competition, increasing shared governance and funding resources between the state and HEIs, and implementing more external evaluation schemes to monitor reform outcomes. As a result, college enrolments expanded, university system were restructured, curriculum and instruction were revised, and competition for resources was emphasized over collegial collaboration. In addition, as many national universities have aimed to become world-class institutions, government policy earmarks special funds to implement higher education upgrading plans. In the long run, some leading HEIs in both countries have benefited and made significant progress, especially in physical infrastructure improvement and the publication of more international journal articles. However, quality and equity issues, in-depth discussion and follow-up reflection tend to be neglected under this broad umbrella of global market ideology.

Furthermore, higher education was formerly highly centralized and administered by the government in both counties until the political open-up in Taiwan during late 1980s and the economic restructuring in China in early 1990s. University reforms in both societies generally followed government policies and directions. As the call for democracy and deregulation rose among people in many developing countries since 1980s, reforms in political powers including educational sectors began to take in place. In Taiwan, the origin of reform began with public demands for social democratization in the early 1990s. Government officials responded by launching reform policy under the recommendation of neo-liberals in government and academe. Overall, the most essential issue in higher education began with the call for decentralization and deregulation of the public institutions in the name of institutional autonomy and academic freedom protected by the constitution. Since the early 1990s, the general public has anticipated a power withdrawal from the government to allow universities to have more autonomy, efficiency and flexibility in decision-making and daily operation. As years pass, universities now enjoy more freedom than before, but are now facing immediate challenges in fund-raising and public demands for accountability.

Higher education reforms in China started as part of the governmental re-structuring process after its economic open-door policy in the early 1990s. Chinese universities have been geared more toward the managerial domain, after re-adjusting relationships between government, society and HEIs. A new shared-responsibility

policy between central and local authorities came into practice in recent years by promoting more burden-sharing and social responsiveness. Market forces have had impacts across university campuses where curriculum, instruction, research, staffing, tuition plans, and many other campus features are expected to be revised on a large scale to empower HEIs to meet market needs.

In spite of this transformation process of neo-liberal policies over the last decade, universities and colleges in both countries are still regulated by the central government in terms of law-making, policy decisions, resource allocation, and execution monitoring. Government maintains its authority in a macro-perspective, while also undergoing a large-scale national restructuring and downsizing process. As the public funding continues to withdraw in accordance with the market formula, universities in Taiwan and China have enjoyed a greater autonomy in decision-making and daily operation levels, with the expectation they become more innovative, creative, and efficient in the long run. Universities are more responsive to societal and student needs as they must meet fundraising agendas dependent on alumni and external sources to offset their public financing deficits. The structure of higher education has been undergoing a series of reforms in order that the system be more adaptive to new social and economic demands.

Overall, higher education reform under market economies has received mixed results in both countries. University education is still considered as a public good rhetorically, but in reality the increasing education costs have put the poor in a more difficult situation and more people have been forced to accept the concept of “user pays”. This is especially the case in Taiwan where universities are more socially relevant and responsive in terms of adapting their education programs and services to the public needs, or even opening up their facilities to the society on a rental-basis. However, the gap between the poor and rich, and the rural and urban areas has been accelerating, along with greater educational opportunity. Regional discrepancies as well as institutional polarization in education provision between public and private, and leading and regular HEIs have created new agendas for universities to strive for a balance between social equity and economic efficiency in Taiwan and China. The issue merits more attention after both countries joined the WTO and began interacting with more international colleagues and competitors (Chen, 2002.10.17). Thus, their university systems inevitably need to re-adjust into a more flexible form and yet maintain their own educational quality to satisfy individual needs while fulfilling their public mission. Above all, maintaining a traditional heritage and self-identity in both countries despite an overemphasis on the pursuit of a western-dominant, world-class university will be no doubt the imminent challenge of the century.

In sum, both Taiwan and China have attempted to restructure their power over HEIs, nevertheless universities still depend on public funding and, therefore, are prone to comply with public policy requirements regardless of academic autonomy and institutional freedom. Issues such as educational quality versus quality, and efficiency versus equity have been overshadowed by market economies during the last decade in both Taiwan and China.

REFERENCE

Blumenstyk, G. (2002). *Chasing the Rainbow: A Venture Capitalist on the Trail of University –Based Companies*. Chronicle of Higher Education, March 15, 2002.

Blumenstyk, G. (2001). Knowledge Is a Form of Venture Capital for a Top Columbia Administrator. *Chronicle of Higher Education*, February 8, 2001.

Chang, Jih-yu (2005.12.26) Focus news: Welcoming the new era of higher education, accessed on January 4, 2007 from http://epaper.edu.tw/news/941226/941226a.htm

Castells, Manuel. (1991, June 30). University system: Engine of development in the new world economy. Paper presented at the Worldwide Policy Seminar on Higher Education Development in Developing Countries, Kuala Lumpur, Malaysia.

Chen, Zhili. (2002.10. 17). Historical accomplishments in education reform and development. *China Education Daily*, Beijing, China.

Chou, C. P. (2005). Neoliberalism and higher education – Cases on New Zealand, Argentina, and the United States. Unpublished report.

Dai, X. X., Mok, K. H. & Xie, A. B. (2002). *The Marketization of Higher Education: A Comparative Study of Taiwan, Hong Kong and China*. Taipei: Higher Education Publishing.

Dale, R. (2001). Constructing a long spoon for comparative education: Charting the career of the New Zealand Model. *Comparative Education*, 37,4,493-501

Fang, H.J. & Fan, D. (2001) *Reform and development of Higher Education*. Beijing: Tsing-Hua University Publishing.

Giroux, Henry A. (2002). Neo-liberalism, Corporate Culture, and the Promise of Higher Education: The University as a Democratic Public Sphere. *Harvard Educational Review*, 72, 4.

Hayhoe, R. (1989). *China's universities and western university models*. In P. G. Philip & V Selvaratnam (Eds.), From dependence to autonomy: The development of Asian universities. Dordrecht, Netherlands: Kluwer Academic.

Hayhoe, R., & Pan, J. (2005). China's universities on the global stage: Perspectives of university leaders. Accessed on January 4, 2007 from

http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News39/text012.htm

Ho, Y.C. (2006.11) The world-class university ranking competition: In responding to Times Higher Education Supplement. Vol. 4. *Evaluation Bi-monthly*, Taipei, Taiwan.

Huang, Futao (2005) Incorporation and university governance: A comparative perspective from China and Japan, accessed on January 04 2007 from www.cnier.ac.cn/ztxx/oecd/wendang/hft.doc

Min, Weifang. (2005). The mode of expansion and cost-effectiveness of Chinese higher education. *Educational Research*, 39-49. vol. 129, Beijing, China.

Ministry of Education (China). (2004). *Statistical yearbook of Chinese education 2003*. People's Education Press, Beijing, China.

Ministry of Education (Taiwan). (2006). Financial report for Public Schools. Retrieved July 10, 2006 from http://www.edu.tw/EDU_WEB/EDU_MGT/ACCOUNTING/EDU7538001/Address/Public/Address.htm?TYPE=1&UNITID=199&CATEGORYID=361&FILEID=142511

Mok, K.-H, & Welch, A. (2003). Globalization, structural adjustment and educational reform. In K.-H. Mok & A. Welso (Eds.), Globalization and educational restructuring in the Asia Pacific region (pp. 1-31). Gordonsville, VA, USA: Palgrave Macmillan.

Ngok, K.-L., & Kwong, J. (2003). Globalization and educational restructuring in China. In K.-H. Mok & A. Welch (Eds.), Globalization and educational restructuring in Asia and the Pacific Region (pp. 160-188). Gordonsville, VA, USA: Palgrave Macmillan.

Slaughter, S. (2001). Professional Values and the Allure of the Market. Academe (September-October 2001), 3-4.

Sun, C.S (2006.12.12) Higher education reform in the globalization era. *United Daily News*, A16.

Tsai, S. L. & Shavit, Y. (2003) Higher education in Taiwan: Expansion and inequality of educational opportunity. Paper presented at the International Sociology Association RC28 Research Committee on Social Stratification and Mobility, August 22-24, New York.

World University rankings (2006).*Times' Higher Education Supplement*, accessed on January 4, 2007 from http://www.thes.co.uk/worldrankings/

CHAPTER 7. TAIWAN HIGHER EDUCATION AT THE CROSSROADS: ITS IMPLICATION FOR CHINA

INTRODUCTION

Since the 1980s, the education systems of Europe, and North and South America have faced a revolution, initiated by the adoption of neo-liberal free market economic policies and a consequent deregulation of education (Giroux, 2002; Dale, 2001). This has variously been realized through the restructuring and deregulation of public education, undertaken to increase the relative autonomy and responsibility of individual institutions, accountability and efficiency. Under these regimes institutions are expected to become more competitive, creating a competitive education market system. Under the impress of international agencies such as the International Monetary Fund (IMF) and World Bank (WB) these neoliberal policies result in increasing private investment for education and supervising higher education institutions (HEIs) through the norms of more standardized and transparent accountability (Chou, 2005).

Under neo-liberal policies universities have shifted from norms of traditional state-control to those of state-supervision. Government's role of initiating rules and regulations for HEIs now consists largely of specifying HEI funding standards. Market-oriented higher education is increasingly focused on issues of "competition" and "deregulation" including: developing performance-based funding schemes, increasing competition for faculty and student accountability, relocating social resources between HEIs, encouraging self-fundraising by universities, setting up more private institutions, and raising tuition fees. The policy sector holds that adopting market-oriented policies elevates the competitiveness of universities, induces cost-effective behaviour among HEI's, and increases efficiency for better education quality. These actions, it is held, improve autonomy within universities, and in the long run, can increase student awareness of their rights as consumers of an educational product.

The following discussion embraces Taiwanese and Chinese higher education reforms since 1990s, as they have strong cultural similarities and are responding to common domestic and foreign trends in the region. Their attempts to upgrade the world-class universities in each country are also controversial, due to the perceived influence of a strong neo-liberal ideology.

Higher Education in Taiwan

After the lifting of martial law in 1987, higher education in Taiwan entered a stage of dramatic growth, part of a remarkable social and economic transformation. The number of universities and colleges expanded two- to three-fold over the past decade. Increasingly numbers of government supported students were viewed as a public sector burden. Successive governments introduced market-oriented reforms to relieve government budgetary pressures and grant the HEI's greater autonomy. Inspired by Japanese education reforms in the 1980s, the Taiwanese government set up an Executive Yuan Educational Reform Committee (1994-96), amended The University Acts in 1994, revised them in 2005 based on deregulation, and pushed institutional administrative funds onto public universities (1996) to increase efficiency. These measures sought to introduce market dynamics into Taiwanese higher education.

Higher Education in China

China also underwent a dramatic change as a result of implementing a market economy and open-door policy in the early 1990s. To respond to the demands of rapid economic growth (averaging 8% GDP growth per annum over two decades) as well as international competition, Chinese higher education changes included: rapid expansion of enrolments, structural reforms, deregulation, privatization and quality improvement (Huang, 2005; Min, 2005).

Traditionally focusing on elite education, the Chinese government has shifted its attention to the improvement of education quality at the primary and secondary levels. Simultaneously massive restructuring of HEI's took pace in an effort to increase shared responsibilities and relocate powers to the provincial and local levels. While funding from the Ministry of Education (MOE) and other central government agencies remains the main source of financing for universities and colleges, massive higher education enrolments in higher education and continued marketization have led to calls for more deregulation and social responsiveness within HEIs.

DEVELOPMENT OF HIGHER EDUCATION IN TAIWAN AND CHINA

Taiwan's institutional expansion

The revision of the University Act in 1994 transformed the traditional centralized system of bureaucratic control of the Ministry of Education into a more self-reliant and autonomous environment for HEIs. It also reduced MOE power and responsibility for university academic and administrative operations in presidential appointments,

curriculum guidelines, student recruitment, staffing, and tuition policy, fulfilling the goal of academic freedom of autonomy (Tsai, 1996).

The number of Taiwanese universities and colleges HEIs has grown rapidly over the last decade from 58 in 1994 to 147 in 2005. (See Table 1)

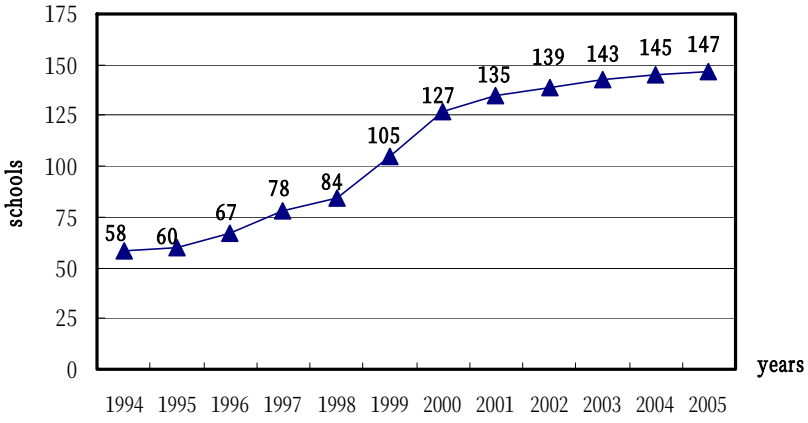

Table 1 The Numbers of Universities in the year 1994-2005 in Taiwan
Source: Bureau of Statistics, MOE (http://140.111.1.192/statistics)

The ratio of public to private institutions at 1:1.94 (54:105) (MOE, 2006) indicates that HEI expansion is mainly due to increases in private institutions, which now accommodate more than 60% of the student population and charge twice as much for tuition than the public universities. In Taiwan, public institutions are regarded as more prestigious than their private counterparts. Most HEI expansion since the 1990's, it has been argued, occurred largely by upgrading existing institutions (especially private, two-year and three-year vocational colleges), although other strategies, such as splitting, merging, and increasing the size of the existing institutions, also resulted in "new" institutions (Tsai and Shavit, 2003). Institutional expansion has been accompanied by dramatic growth in the net higher education enrolment rate among the 18-22 age cohorts, particularly among female students (who now constitute more than 45% of enrolees). University student enrolments have doubled since 1998 (See Table 2).

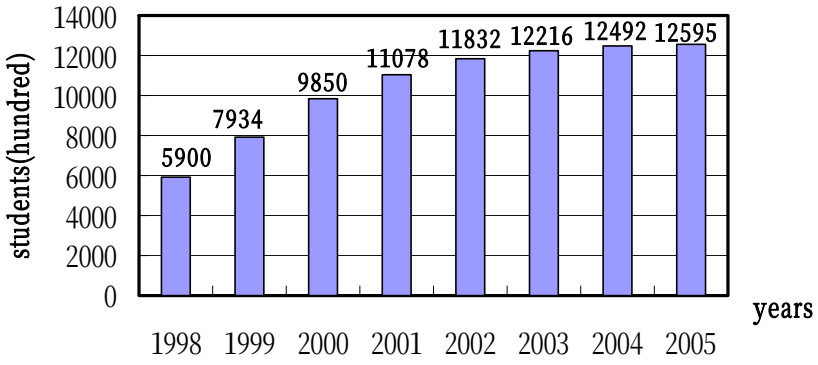

Table 2 The University Student Enrollment in Taiwan
Source: Bureau of Statistics M.O.E. (http://140.111.1.192/statistics/)

China's institutional expansion

In 2004 China's higher education system included more than 1,000 regular full-time universities and colleges, and almost the same amount of new private HEIs (See Table 3). Predominantly public HEIs receive about 12 million students and the newly established private universities enrol more than one million students (See Table 4). This paper focuses on regular full-time universities and colleges in China (Min, 2005).

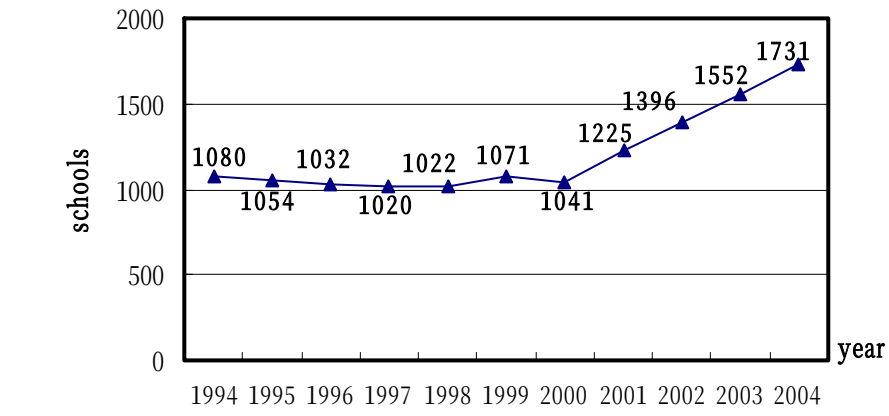

Table 3 The Numbers of Universities in the year 1994-2004 in China
Source: Nation Bureau of Statistics of China (http://www.stats.gov.cn/)

As in Taiwan, Chinese higher education restructured and expanded during the 1990s. Before 1998, of over 1000 universities, 367 were governed by 62 ministries of the State Council. After a series of HEI mergers and, the MOE and some special government committees and departments now have authority to govern directly only

100 universities in the country; the rest have become the responsibility of local governments. Through the process of "restructuring, cooperation, and incorporation over the HEIs", a total of 597 institutes merged into new universities. These actions represent some progress in responding to induced global de-regulation and accountability. (Fang & Fan, 2001).

Student enrolment growth over the past decade has significantly altered the composition of Chinese higher education. The 1998 figure of eight million HE students (including full-time and part-time students) amounted to, less than 10% of the gross enrolment rate every year. After 1998 university enrolment increased up to 40% annually. By 2005, student enrolment in HEIs exceeded 23 million enrolments or 13 million full-time students, with the gross enrolment rate over 21%. This enrolment expansion resulted from actions by central government who instituted policies seeking to reduce the youth unemployment rate and encourage more educational consumption by expanding university capacity. (MOE of PRC, 2004). (See Table 4)

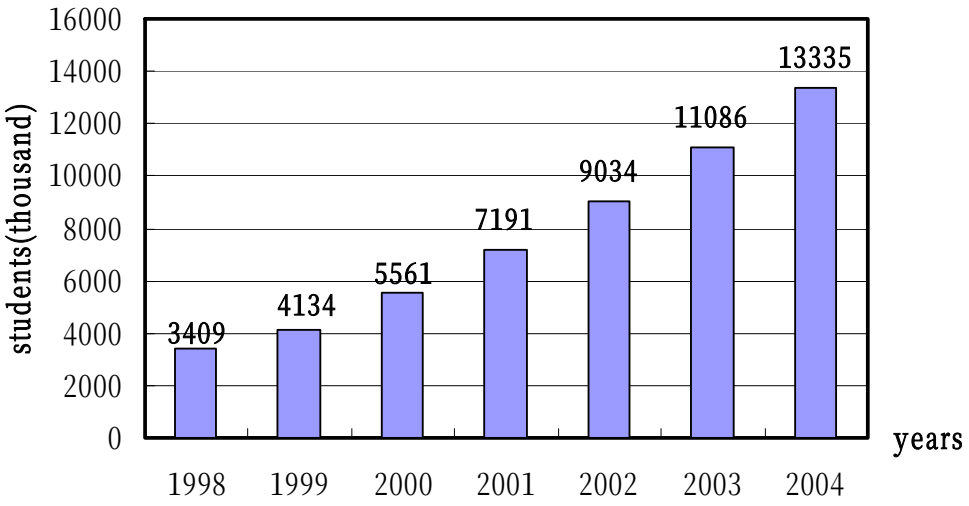

Table 4 The University Student Enrollment in China
Source: National Bureau of Statistics of China (http://www.stats.gov.cn/)

VI. Responding to Market Economies

Taiwan's Responses

Seeking to install market mechanisms in the higher education environment, MOE and the Executive Yuan Education Reform Committee, formed in 1994, explored the employment of several market mechanisms within higher education, most urgently calling for deregulation. By granting HEIs more autonomy, the predominant government role changed from regulator to facilitator. Government no

longer intervenes with direct administration over public HEIs, instead supervising them through the University Act and other state laws. As frequently the case in the UK, Germany and Japan, government funding is no longer guaranteed and some actions toward incorporating public universities are under way. Following the Japanese Public University Incorporation Law in 2003, the Taiwanese MOE coincidently initiated a proposal to incorporate public universities. This act enabled some of the chosen and voluntary universities to transform into more independent, cost-effective and autonomous entities under the protection of law. Consequently, universities are expected to assume more financial responsibility and move toward a merit-based system in personnel decisions and calls for university accountability and efficiency are evident and stated repeatedly throughout government.

In 1999 the MOE in Taiwan initiated the "Project for Pursuing Excellence in Higher Education" in 1999, followed by the launch of a "White Paper Report on Higher Education in Taiwan" four years later. This paper sums up the latest developments of higher education in Taiwan and recommends a wide range of measures to achieve excellence in higher education, including the introduction of a university evaluation system, the establishment of a university financing committee, university merging and the increasing international exchange programs among faculty and students.

Taking university financing reform as an example, Taiwanese authorities proposed to change the ratio and method in funding, and encouraged public universities to search for alternate ways in raising revenue (Ministry of Education, 2006). Programs for continuing education, encouraging more cooperation with enterprises for sponsorships, setting up joint ventures on campus with outside business world all mushroomed within HEIs across the country (Dai, Mok, and Hsieh, 2002). The result is a very different campus culture in which faculty and administrators are driven to seek more resources with declining funding.

In addition, these government bodies sought to create greater heterogeneity among HEIs, suggesting that they should be differentiated respectively by their own characteristics, and mission. For example, faculty salary scales that might better be based on seniority are viewed as insufficient to promote the desired competition. To increase faculty competitiveness in HEIs, the committee suggested a more accountable reward system. The MOE also attempted to lessen its control over the establishment and enforcement of curriculum requirements, and has set up guidelines to allow for competing resources as well as financial subsidies based on merit and performance.

Although many critics remain sceptical of the picture that the Education Reform Committee (1994-96) and the White Paper Report portrayed (2003), most of the

policies recommended in the reports later became mandatory and were put into practice regardless of the initial resistance from HEIs. Universities and colleges now experience increasing pressure from the market and government in competing for resources, funding and student recruitment. Meritocracy, accountability and networking among faculty and staff carry more weight than before.

China's Responses

Among all the major changes within Chinese HEIs in response to the worldwide market economies, structural reforms deserve close attention. A series of new educational policies has been launched over the years that reduce governmental involvement and increase the responsibilities to be exercised by universities in order to meet the needs of the society.

Higher education in China has historically been strongly administered by the central and provincial governments in the centrally-planned economic system prior to the 1990s. As a result, HEIs were immune to responding to any social changes or global competition and has long been criticized as "irrational, irrelevant, and segmented." (Fang & Fan, 2001) Therefore, the structural reform and adjustment of the higher education system became one of the top priorities including a release of Higher Education Act in 1998 .This act detailed a two-level education provision system with an attempt to differentiate responsibilities between different levels of governments, and university's responsibilities in resource generation, funding allocation, and student recruitment. (Dai, Mok, and Hsieh, 2002). Specific reform programs were implemented such as change of the government/university relationship (Huang, 2005; Min, 2005), and institutional mergers. One example being the emergence of the new Zhejiang University from five neighbourhood universities later to become one of the leading comprehensive universities in China.

Moreover, university curriculum reform has come under revision. Universities have been criticized for providing overspecialized and fragmented knowledge which prevented students from embracing well-rounded development and practical knowledge for the job market. In response to this problem, curriculum reforms that took place across Chinese universities after the late 1980s introduced interdisciplinary studies, general education, and many more market-oriented programs along with reforming teaching and learning process. Universities are also undergoing a series of re-organization among different programs, disciplines, departments, and even administrative offices.

In addition, a new University finance reform was underway. In the past, Chinese HEIs were public-funded and charged no tuition for students who later received government jobs. University faculty, as public officials, received humble salaries

based on seniority rather than performance, and HEIs could admit only a limited number of elite students through a highly competitive college entrance examination. As Chinese higher education enrolments expanded rapidly over the past decades, the publicly-funded system was forced to reconstruct due to its financial constraints (Min, 2005.11.10). A cost-sharing and cost-recovery system among central and local governments and the universities was adopted to reduce the former public funding model. Universities began to charge tuition and fees around the mid-1990s. At present, more than one-fifth of the total operational budgets of HEIs are covered by tuition and fees.

In addition, universities now can generate their own revenue by issuing patents, copyrights and contracts with industry, conducting business consultation, offering in-service training programs, and launching fund-raising activities. Leading universities like Peking and Tsinghua University also generate revenues by setting-up university-affiliated high-tech companies in China. In the year 2000, of the total expenditures of Chinese higher education, 57% came from state appropriations, 22% from tuition and fees, and the remaining 21% from revenue generated by the universities themselves (Min, 2005).

In addition, a salary-scale renovation was introduced detailing different formulas for job performance among faculty members to recognize their merit rather than seniority. Research and publication is highly encouraged, as well, and integrated into salaries at leading Chinese universities.

Another major reform in China over the last decade has been the re-establishment of private higher education (so-called *minban* or non-state-run higher education). In an attempt to combat the enrolment shortage of public institutions, the Chinese government implemented policies deregulating the private sectors to increase university enrolment rates from 3% to 14% of the college age cohort by 2002. Although most of the private HEIs remained as short-term and vocational-oriented programs, some of them later developed into comprehensive and competitive HEIs. Currently, there are over 1,200 private universities and, enrolling over one million students. However, only about 5 % of these institutions have been officially accredited by the government to grant university diplomas. A new law regarding the legal status and management of private education was issued and implemented for the first time in 2003, recognizing the contribution of private sectors and the return rate permitted to be granted to the investors.

Finally, a major reform needing mention is the abolishment of the governmental job assignment policy among college graduates in the mid-1990s. Like their counterparts in most countries, Chinese university graduates currently enter a competitive job market with qualifications rather than depending on governmental

arrangement. As market economies develop, a university education is expected to be more responsive and relevant to social needs and the job market. Programs and courses have been revised based mostly on practical and market values, instead of theoretical and pure-science subjects. Programs such as economics, finance, law, industrial/commercial management, foreign languages, computer and applied technology have been more popular. Consequently, students in China now pay more attention to their future job market prospects and career development than their own interests and academic potentials (Dai, Mok, and Hsieh, 2002).

SPECIFIC ACTIONS TOWARD MORE COMPETITIVE UNIVERSITIES

Taiwan's initiatives

The introduction of market mechanisms into universities means the transformation of higher education from a public good to a private commodity. In its efforts to decrease government control and integrate social demands with market forces, Taiwanese higher education since the 1990s has been significantly influenced by neo-liberalism thought and policy.

As a result of the introduction of free-market economy principles and neo-liberalism policies in 1990s, the proportion of financial support from the MOE has decreased 23% in the last decade, whereas the proportion of tuition income has increased 6% (Sun, 2006.12.12). Accordingly, an "administrative funding scheme" was introduced into public universities to improve their accountability. No longer relying on government budgets alone, public (or so-called "national") universities are required to designate partial funds for sharing their daily administrative costs. Nevertheless, the MOE and other government budgeting offices still have the right to regulate various university practices. A trial program based on these principles within five universities was introduced by the central government in 1996. Now 55 out of 70 public universities participate in this new program, allowing more autonomy in resource allocation (See Table 5).

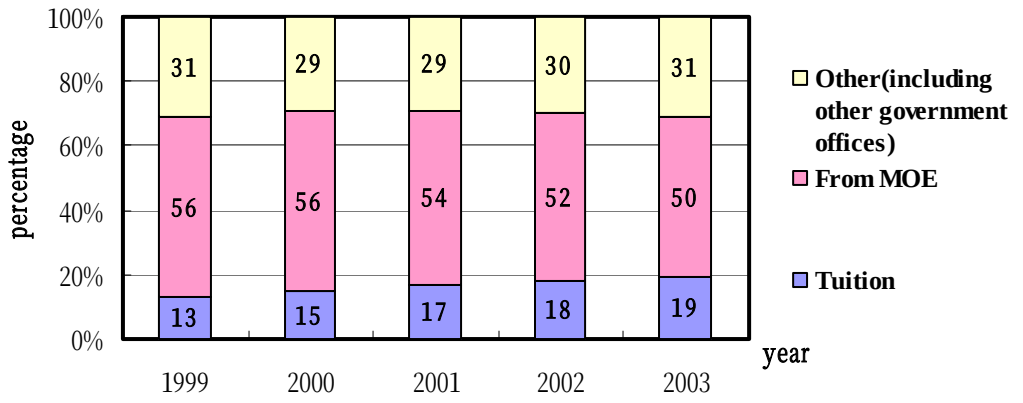

Table 5 Source of Administrative Fund for Public Universities in Taiwan

In order to become more financially self-sufficient, leading universities undertook an unprecedented fund-raising campaign, gathering donations from their alumni, the general public, and business. However, many institutions have been less than successful in obtaining significant support from these sources. HEIs such as new public universities lack strong networks with their newly-graduated alumni.

Teachers' Colleges (now re-classified as education universities) suffered from a shortage of strong alumni donations. Above all, the Taiwanese general public is not used to donating money to universities (public institutes especially) because the latter have been regarded as a public good, funded solely by the government. Therefore, a huge discrepancy in fundraising arose between the well-established HEIs (especially those with a comprehensive and science/engineering background) and the less prestigious/small-scale universities. Higher education quality skewed drastically according to different institutes (See Table 6).

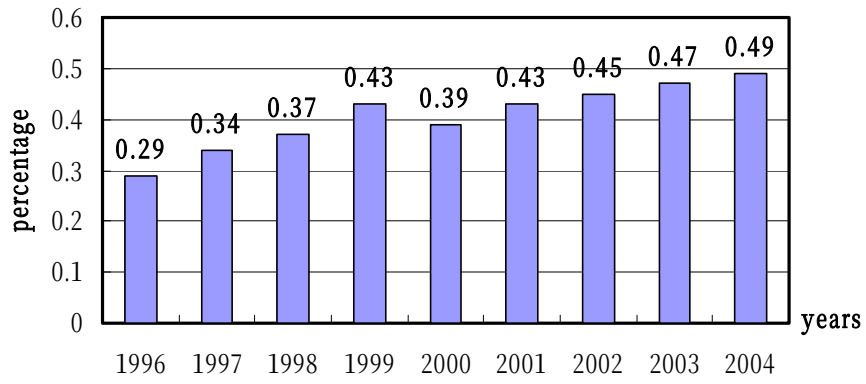

Table 6 Percentage of Self-Fundraising in Public Universities in Taiwan

In another attempt to provide universities with more incentives for pursuing excellence and to offset declining quality due to rapid expansion and public budget cuts, the MOE promoted a "World Class Research University Project" in 2003. This proposal aimed to upgrade at least one of the HEIs in Taiwan to rank among the world's top 100 universities based on international journals within the next ten years. Consequently, a "Five-year, Fifty Billion Budget" plan (est. 1.6 billion USD) was launched among several selected prestigious public and private HEIs in early 2006 to improve fundamental development, integrate human resources from different departments, disciplines and universities, and establish research centers to pioneer specialized interests. In addition, universities now are required to establish an internal and external evaluation system using various indicators such as the Science Citation Index (SCI), Social Science Citation Index (SSCI), and the Engineering Index (EI) etc., in accordance with standards that meet international recognition for awards, achievements, and contributions within their field of expertise. A non-governmental organization (NGO), The Higher Education Evaluation and Accreditation Council of Taiwan , was established in December, 2005 to conduct external evaluations across universities on a regular basis (Chang, 2005.12.26).

Chinese initiatives

The Chinese government has launched similar projects in an attempt to enhance international competitiveness among universities. To achieve the goal of "100 leading universities, research centers, and disciplines across China in the 21st century", the Chinese government started its "211 Project" in 1995. The project's main emphasis is to develop a group of HEIs that will compete to enter the ranks of the top world-class universities (MOE of PRC, 2004). The project will choose 100 universities from

applications from across the country. In order to develop criteria and data to assist in selecting these 100 HEIs, the government started an evaluation process based on measurements of faculty quality and productivity, facilities, libraries, laboratories, research quality, university resources and many more criteria. Consequently, Chinese HEIs began a series of institutional mergers. After five years of this merger experience, many newly-established universities are developing the basis upon which to be highly competitive in acquiring national prestige. One example, previously mentioned, is Zhejiang University which now ranks among the top five universities as a result of a merger with local HEIs and funding by many of the aforementioned projects.

Subsequent to “Project 211”, another, labelled “Project 985”, was developed in an attempt to push Chinese higher education to a new level. The idea originated from a speech by the former General Secretary of China, Jiang Zemin who attended the 100th Anniversary of Beijing University in May 4, 1998, and proclaimed that “China must have a number of first-rate universities of international advanced level” (Hayhoe & Pan, 2005). Consequently, the MOE of China has signed agreements with nine top HEIs in China such as Peking University, Tsinghua University and Shanghai Jiao Tong University, hoping to upgrade Chinese universities to the standards of Harvard University, London University, Tokyo University and the like. With full financial support from the central and local governments, these nine institutions are expected to blossom over the next few years. Top funding priority was given to Peking University and Tsinghua University, ranked as 14 and 28 respectively among the world’s top leading universities according to the Times’ Higher Education Supplement (World University Rankings, 2006). It is also expected that these leading universities will be able to serve as examples to improve Chinese higher education.

In another effort to upgrade their overall quality and reputation, many Chinese universities have established exchange programs with international universities intended to broaden the horizons of faculty and students. It is also considered an “asset” to increase student enrolments in the university. Universities which go for international exchange programs are concentrated in areas like Peking, Shanghai, Tianjin, and other metropolitan and coastal cities in China that are more accessible to the outside world. It is estimated that approximately a half million students and scholars have gone to study abroad in the past 20 years, as more international academic exchange programs and joint research programs have been set up both domestically and abroad. As China continues its open-door policy, more internationally-oriented programs, such as international studies and foreign languages, have become very popular on university campuses. At the same time, more international exchanges and collaboration between Chinese students/scholars and

international counterparts are taking place.

CHALLENGES AND COMPARISONS

Taiwan's dilemma

The road to reform in higher education in Taiwan and China as well as their related pursuit to achieve world class standards has revealed significant challenges that both countries must confront and overcome to achieve these goals. For example, the introduction of market economies in the early 1990s, followed by deregulation of government control over the new HEI establishment, has resulted in an unprecedented expansion of higher education in Taiwan. More HEIs now compete for less and less resources and public funding. Mixed results have occurred in terms of educational quality, efficiency and equity. Universities are more accessible to younger generations than before, but the increasing tuition and declining educational quality, coupled with the drastic decline of fertility rate in Taiwan has aroused another concern about the over-supply of university graduates in the job market.

Challenges on these issues are as follows (Blumenstyk, 2001, 2002; Chou, 2005; Giroux, 2002; Slaughter, 2001):

- The new changing role of university from being highly regarded to the concept of "user pays" rules has forced many HEIs to tailor their programs and coursework according to perceived market needs. Students tend to take courses with "practical outcomes", rather than for personal fulfilment. Teaching faculties are viewed as academic entrepreneurs, treating professional knowledge as a matter of business, rather than engaging in academic pursuit for truth and discovery. Owing to the massive expansion of HEIs and consequent shrinking public budget in the past decade, universities now need to compete for external funding opportunities from the business world. Trade-offs are the possible external corporate intervention with university operations, curriculum design, and personnel appointments.
- In addition, the increase in public and private HEI tuition has become a heavy burden for many students across Taiwan. From 1997 to 2006, tuition at public universities has increased approximately 42%, while private universities have experienced a 14% increase (on an already high cost base). The average salary has increased only about 8%**.** Taiwanese families (GDP=13,500 USD in 2005) have to bear such high costs, especially for students who attend private institutions. The latter make up about 66% of the total universities and colleges in Taiwan (See Table 7).

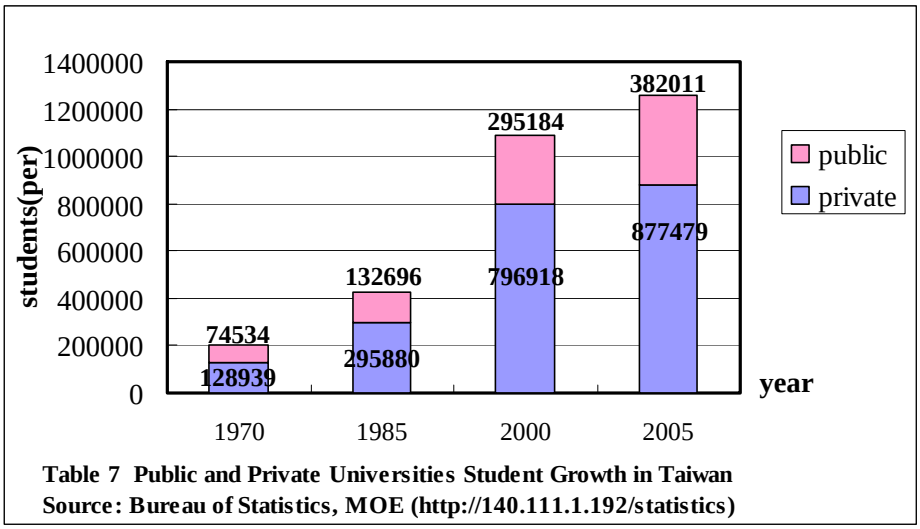

Table 7 Public and Private Universities Student Growth in Taiwan
Source: Bureau of Statistics, MOE (http://140.111.1.192/statistics)

In sum, Taiwanese higher education has undergone a drastic change with the introduction of a market economy ideology, the expansion of HEIs, and public financial constraints since early 1990s. Taiwan's access to the World Trade Organization (WTO) in 2002 has created a more competitive international environment in which the educational sector is regarded as a trade service without national boundary. With limited education resources and an over-supply of college graduates with diverse qualifications, higher education institutes encounter an uphill challenge and competition within both domestic and international arenas. More university restructuring efforts will take place through institutional expansion, mergers, and evaluation, based more on market considerations than on social equity concerns.

China's challenge

Since the mid-1980s, China, as a former socialist country, has undergone a variety of changes in the political, economic, and other social domains. In particular, the adoption of market economies along with the open door policy became the major force in Chinese higher education reform (Ngok & Kwong, 2003). For example, privatization (sometimes appearing in different forms) in China as part of the reform agenda has been encouraged with the following characteristics: private economic activities receive more support within a climate of increasing deregulation; activities and wages from the public sector have been cut substantially; and more policies aiming for export growth and industrial development have taken away from state responsibility for social welfare in public health, transport, communications and education in particular (Mok & Welch, 2003).

As a result, these economic and political changes shifted the academic climate completely. Higher education reforms since the 1990s have helped to relinquish state

governance and responsibilities previously held by the central and local governments. Universities assumed more responsibility and accountability for their daily operation, while government monitored succession planning, overall structural development, and resource allocation. Mixed results of such deregulation and privatisation policies have emerged with the increase of campus autonomy and financial freedom, especially from those leading HEIs. For example, many university faculty members now have the opportunity to seek additional income from other resources to compensate their relatively low salary. A survey indicated that a common phenomenon arose after China's economic development in the 1990s. University faculty, especially those from coastal and leading institutes, have been driven by market forces to concern themselves with activities other than teaching and research. Many professors now take part in projects or provide training services for private institutes or companies, generating more external revenues for their institutes and themselves.

Another issue deserving consideration is that as China's economic growth continues, leading HEIs have been provided with increased funding for facilities and basic infrastructures. Because these universities have traditionally had the privilege of obtaining additional funding from governments, many of them have had enormous investments in their physical plant, bringing them to world-class level. These HEIs have benefited from the special government funding policy by over-investing in their building construction and material realms, neglecting their internal substance. This phenomenon marks the paradox of a Chinese university, rich in hardware and material range, but poor in software and academic scope, a climate that parallels the improvement of institutional autonomy and freedom. Nevertheless, the Chinese government has recognized this problem and begun to reform the university reward and funding system with salary and promotion scales, providing greater initiatives for institutional accountability and personal growth in research publication and job performance. As a result, Peking University was chosen to rank among the top 100 world-class universities in October, 2006, by the Times Higher Education Supplement from London. This recognition has rewarded Chinese endeavours in upgrading their universities over the last decade, although scrutiny remains about the validity and credibility of university rankings (Ho, 2006).

After China' s entry into the World Trade Organization in 2001, an increasing demand for globalizing higher education, such as cross-cultural interactions and exchanges of students and faculty members, has resulted in an even greater pressure on the irreversible internationalizing trend in Chinese higher education (Min, 2005). In an era of rapid advancements in science and technology, Chinese universities have been called on to play a central role in knowledge-based economic development.

Comparison

Taiwan and China, though distinct in political, social and economic background, are following the global trend of reforming higher education in market-oriented directions. In comparing the distinctive features in higher education between these two societies after the 1990s, the former aims for deregulation and diversity within the system, competition to gain management efficiency, and integrating societal needs as a way of responding to the market economy. As for China, especially after 1992, the major concern has been to pursue economic efficiency and prosperity rather than ascribe to social equity norms that had once been so strongly articulated in China. The following discussion will highlight some of the comparative issues between Taiwan and China (See Figure 1).

Figure 1 Comparison between Taiwan and China

Reform policy	Taiwan	China
Reform features	.deregulation, efficiency and diversity resource polarization between universities and areas. Political democratization after the lift of Martial Law in 1987	. efficiency and prosperity .less concerned with social equity .discrepancy between inland and coastal areas, poor and rich
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Reform origin	.Bottom-up movement and social pressure for change	.Economic open-door policy after early 1990s .Government top-down policy
----------	.The Award for university teaching excellence in 2000 .World-class research university project in 2005 (5 year, 50 billion NT Plan)	
Policy package for Funding and promotion as reform incentive	.SSCI, SCI, EI Journal article phenomenon	.211 Project in 1995 .985 World-class University Project in 1998 .SSCI, SCI, EI Journal article phenomenon

1. Origin of higher education reform

Changes in Taiwanese higher education have taken place in the context of political democratization, the lift of Martial Law in 1987, and a process of economic restructuring from a labour-intensive to a science and technology industry in the early 1990s. Higher education was in demand for its capability to provide modern citizens with creativity as well as to meet the need for new manpower. On the other hand, Chinese higher education reform originated from the open-door policy and the introduction of a market economy after the early 1990s (Huang, 2005). As the Chinese economy expanded (an average annual GDP growth rate of 8% for the past two decades), the high demand for economic reforms and an open-door policy have helped the Chinese economy to become more integrated into the international economy. Consequently, Chinese higher education has been marked for major change to improve national development and manpower,.

Specifically, differences between the two nations under the market economies date from Taiwan's lifting of political martial law in 1987, a change that created a social environment for education innovation and openness. Government as well as the general public took complementary roles in developing initiatives for higher education reform. Comparably, China started her reforms following open-market economy policies in the beginning of the early 1980s and accelerated its reform scale in the mid-1990s as the economy developed. Nevertheless, the leading authority of higher education in the aspect of policy and resource in both countries is still confined to the government, although public opinion counts more heavily in Taiwan due to political democratization since the late 1980s.

2. Reforms linked with funding and promotion scales

Unlike China's rapid economic growth during the past two decades, Taiwan's economic growth has remained relatively stable in the past few years. This economic reality together with the expansion of HEIs in Taiwan, has placed an enormous financial burden on both public and private institutions, and shifted the focus and culture of the profession. For example, in order to enforce a competitive mechanism for institutional and individual funding, the government sets up evaluation criteria based on quantitative indicators and require HEIs and faculty to comply. One key element for accountability depends on the number of journal articles published in the SSCI, SCI and EI databases. This western-dominant evaluation standard has created tremendous pressure on university faculty who now seek more short-term research outcomes as a means to fulfil the criteria for public funding and the self-evaluation process. A series of standardized evaluation systems have been introduced in both

nations combining funding and salary scales. The over-emphasis of publication quantity rather than quality, journal articles rather than books, and research over teaching, has driven HEIs to fall into a quasi-corporate world full of external insensitivities and competition rather than an educational entity.

In addition, the bid to raise external revenue coupled with continuing evaluation demands at personal as well as institutional levels has transformed Taiwanese HEIs into market-driven entities. The emerging trend for university faculty to act as academic entrepreneurs at the expense of their role as public intellectuals seems unstoppable. The hope that education reform will facilitate academic autonomy and serve the public seems less and less attainable in an era of academic capitalism.

3. Over-emphasis on pursuing -"World Class Universities" policies

In order to align with international competition and the revolution in information science and technology, universities today are expected to gear towards knowledge-based institutions (Castells, 1991). Taiwanese and Chinese governments have, therefore, initiated policies not only to expand higher education enrolments but also to upgrade some leading national universities to world-class status. These attempts include the 'World Class Research University' project in Taiwan and the '211 Project' and '985 World-Class University Project' in China -- have created mixed results. Because public funding has only been allocated to selected universities, the increasing disparity of educational quality has accelerated between public and private, and leading and regular HEIs. It is clear that the new higher education framework in both countries has been prioritized more on accountability and market competition in quantitative terms than on social equity and equality values. These "world-class universities policies" have been characterized as duplicating Western and American university models whose "cultural imperialism" and "cultural reproduction" will, in the long run, impair both societies' cultural identity and heritage (Hayhoe, 1989; Ho, 2006).

CONCLUSION

As discussed above, higher education reform after the early 1990s in Taiwan and China has followed a similar transitional pattern along with the global expansion of neo-liberalism ideology. Reform policies took various forms, such as deregulation of government control, privatization of public services, introduction of accountability and competition, increasing shared governance and funding resources between the state and HEIs, and implementing more external evaluation schemes to monitor reform outcomes. As a result, college enrolments expanded, university system were restructured, curriculum and instruction were revised, and competition for resources

was emphasized over collegial collaboration. In addition, as many national universities have aimed to become world-class institutions, government policy earmarks special funds to implement higher education upgrading plans. In the long run, some leading HEIs in both countries have benefited and made significant progress, especially in physical infrastructure improvement and the publication of more international journal articles. However, quality and equity issues, in-depth discussion and follow-up reflection tend to be neglected under this broad umbrella of global market ideology.

Furthermore, higher education was formerly highly centralized and administered by the government in both counties until the political open-up in Taiwan during late 1980s and the economic restructuring in China in early 1990s. University reforms in both societies generally followed government policies and directions. As the call for democracy and deregulation rose among people in many developing countries since 1980s, reforms in political powers including educational sectors began to take in place. In Taiwan, the origin of reform began with public demands for social democratization in the early 1990s. Government officials responded by launching reform policy under the recommendation of neo-liberals in government and academe. Overall, the most essential issue in higher education began with the call for decentralization and deregulation of the public institutions in the name of institutional autonomy and academic freedom protected by the constitution. Since the early 1990s, the general public has anticipated a power withdrawal from the government to allow universities to have more autonomy, efficiency and flexibility in decision-making and daily operation. As years pass, universities now enjoy more freedom than before, but are now facing immediate challenges in fund-raising and public demands for accountability.

Higher education reforms in China started as part of the governmental re-structuring process after its economic open-door policy in the early 1990s. Chinese universities have been geared more toward the managerial domain, after re-adjusting relationships between government, society and HEIs. A new shared-responsibility policy between central and local authorities came into practice in recent years by promoting more burden-sharing and social responsiveness. Market forces have had impacts across university campuses where curriculum, instruction, research, staffing, tuition plans, and many other campus features are expected to be revised on a large scale to empower HEIs to meet market needs.

In spite of this transformation process of neo-liberal policies over the last decade, universities and colleges in both countries are still regulated by the central government in terms of law-making, policy decisions, resource allocation, and execution monitoring. Government maintains its authority in a macro-perspective,

while also undergoing a large-scale national restructuring and downsizing process. As the public funding continues to withdraw in accordance with the market formula, universities in Taiwan and China have enjoyed a greater autonomy in decision-making and daily operation levels, with the expectation they become more innovative, creative, and efficient in the long run. Universities are more responsive to societal and student needs as they must meet fundraising agendas dependent on alumni and external sources to offset their public financing deficits. The structure of higher education has been undergoing a series of reforms in order that the system be more adaptive to new social and economic demands.

Overall, higher education reform under market economies has received mixed results in both countries. University education is still considered as a public good rhetorically, but in reality the increasing education costs have put the poor in a more difficult situation and more people have been forced to accept the concept of “user pays”. This is especially the case in Taiwan where universities are more socially relevant and responsive in terms of adapting their education programs and services to the public needs, or even opening up their facilities to the society on a rental-basis. However, the gap between the poor and rich, and the rural and urban areas has been accelerating, along with greater educational opportunity. Regional discrepancies as well as institutional polarization in education provision between public and private, and leading and regular HEIs have created new agendas for universities to strive for a balance between social equity and economic efficiency in Taiwan and China. The issue merits more attention after both countries joined the WTO and began interacting with more international colleagues and competitors (Chen, 2002.10.17). Thus, their university systems inevitably need to re-adjust into a more flexible form and yet maintain their own educational quality to satisfy individual needs while fulfilling their public mission. Above all, maintaining a traditional heritage and self-identity in both countries despite an overemphasis on the pursuit of a western-dominant, world-class university will be no doubt the imminent challenge of the century.

In sum, both Taiwan and China have attempted to restructure their power over HEIs, nevertheless universities still depend on public funding and, therefore, are prone to comply with public policy requirements regardless of academic autonomy and institutional freedom. Issues such as educational quality versus quality, and efficiency versus equity have been overshadowed by market economies during the last decade in both Taiwan and China.

REFERENCE

Blumenstyk, G. (2002). *Chasing the Rainbow: A Venture Capitalist on the Trail of University –Based Companies*. Chronicle of Higher Education, March 15, 2002.

Blumenstyk, G. (2001). Knowledge Is a Form of Venture Capital for a Top Columbia Administrator. *Chronicle of Higher Education*, February 8, 2001.

Chang, Jih-yu (2005.12.26) Focus news: Welcoming the new era of higher education, accessed on January 4, 2007 from http://epaper.edu.tw/news/941226/941226a.htm

Castells, Manuel. (1991, June 30). University system: Engine of development in the new world economy. Paper presented at the Worldwide Policy Seminar on Higher Education Development in Developing Countries, Kuala Lumpur, Malaysia.

Chen, Zhili. (2002.10. 17). Historical accomplishments in education reform and development. *China Education Daily*, Beijing, China.

Chou, C. P. (2005). Neoliberalism and higher education – Cases on New Zealand, Argentina, and the United States. Unpublished report.

Dai, X. X., Mok, K. H. & Xie, A. B. (2002). *The Marketization of Higher Education: A Comparative Study of Taiwan, Hong Kong and China*. Taipei: Higher Education Publishing.

Dale, R. (2001). Constructing a long spoon for comparative education: Charting the career of the New Zealand Model. *Comparative Education*, 37,4,493-501

Fang, H.J. & Fan, D. (2001) *Reform and development of Higher Education*. Beijing: Tsing-Hua University Publishing.

Giroux, Henry A. (2002). Neo-liberalism, Corporate Culture, and the Promise of Higher Education: The University as a Democratic Public Sphere. *Harvard Educational Review*, 72, 4.

Hayhoe, R. (1989). *China's universities and western university models*. In P. G. Philip & V Selvaratnam (Eds.), From dependence to autonomy: The development of Asian universities. Dordrecht, Netherlands: Kluwer Academic.

Hayhoe, R., & Pan, J. (2005). China's universities on the global stage: Perspectives of university leaders. Accessed on January 4, 2007 from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News39/text012.htm

Ho, Y.C. (2006.11) The world-class university ranking competition: In responding to Times Higher Education Supplement. Vol. 4. *Evaluation Bi-monthly*, Taipei, Taiwan.

Huang, Futao (2005) Incorporation and university governance: A comparative perspective from China and Japan, accessed on January 04 2007 from www.cnier.ac.cn/ztxx/oecd/wendang/hft.doc

Min, Weifang. (2005). The mode of expansion and cost-effectiveness of Chinese higher education. *Educational Research*, 39-49. vol. 129, Beijing, China.

Ministry of Education (China). (2004). *Statistical yearbook of Chinese education 2003*. People's Education Press, Beijing, China.

Ministry of Education (Taiwan). (2006). Financial report for Public Schools. Retrieved July 10, 2006 from http://www.edu.tw/EDU_WEB/EDU_MGT/ACCOUNTING/EDU7538001/Address/Public/Address.htm?TYPE=1&UNITID=199&CATEGORYID=361&FILEID=142511

Mok, K.-H, & Welch, A. (2003). Globalization, structural adjustment and educational reform. In K.-H. Mok & A. Welso (Eds.), Globalization and educational restructuring in the Asia Pacific region (pp. 1-31). Gordonsville, VA, USA: Palgrave Macmillan.

Ngok, K.-L., & Kwong, J. (2003). Globalization and educational restructuring in China. In K.-H. Mok & A. Welch (Eds.), Globalization and educational restructuring in Asia and the Pacific Region (pp. 160-188). Gordonsville, VA, USA: Palgrave Macmillan.

Slaughter, S. (2001). Professional Values and the Allure of the Market. Academe (September-October 2001), 3-4.

Sun, C.S (2006.12.12) Higher education reform in the globalization era. *United Daily News*, A16.

Tsai, S. L. & Shavit, Y. (2003) Higher education in Taiwan: Expansion and inequality of educational opportunity. Paper presented at the International Sociology Association RC28 Research Committee on Social Stratification and Mobility, August 22-24, New York.

World University rankings (2006).*Times' Higher Education Supplement*, accessed on January 4, 2007 from http://www.thes.co.uk/worldrankings/

CHAPTER 8. THE PUSH AND PULL OF INTERNATIONAL STUDENTS IN TAIWAN

The cross-border mobility of international students constitutes a critical element of the internationalization of higher education. Heightened interest in recent decades has shifted traditional mobility patterns from an elitist experience characterized by scholarship or fellowship recipients to the mass movement of individuals and groups (Teichler & Jahr, 2001). In the 21st century a select number of students define themselves as members of elite groups enrolled in high-quality degree programs in popular host destinations; the majority, however, leave home nations to obtain degrees at any personal financial expense. Others are motivated to acquire international experiences that complement concurrent academic programs in home nations. Traditionally international students migrated for association with world renowned scholars or to further a disciplinary knowledge base in nations such as the United States or Britain; in the contemporary era university students are more likely to study in the global arena in newly established host destinations for advancement of degrees, diplomas, or professional certification (Williams, 1981).

The Institute of International Education (IIE) definition of an international student is, one who undertakes all or part of his/her higher education experience in a country other than the home country (Project Atlas, 2004). More broadly, cross-border education is classified as a borderless asset of the global education industry that redefines traditional patterns and trends of international student mobility (Kwiek, 2005). Since 1995 the total number of international students has all but doubled, reaching nearly 2.7 million (OECD, 2006). Correspondingly the demand for global cross-border education is forecasted to increase from 1.8 million international students in 2000 to 7.2 million in 2025 (Bohm, Meares, & Pearce, 2002). Analysts predict that 70 percent of the global demand will be generated within the Asia Pacific region (Olsen, 2003).

In the contemporary era many nations have shifted foreign student policies from an aid approach to a trade rationale (Smart & Ang, 1993). Thus, signaling that cross-border education is a commodity of free trade rather than a public responsibility (Kirp, 2003). Given this the market for international students has become a dynamic growth industry sustained by universities, government agencies, private corporations, and entrepreneurs motivated by financial profit (Altbach, 2003). National governments are keen to sustain active involvement through their Ministries of Education or dedicated promotional agencies (Kemp, 1995), that capitalize on the benefits of international student populations as linked to skill migration, economic

growth, public diplomacy, and research associated with a knowledge society (Kishun, 2007).

Contemporary patterns of cross-border mobility encompass a complex, contradictory, and expansive discourse shaped by the discussions, policy issues, and mission statements of individual universities as well as the themes of education policy and global trade within the General Agreement on Trade in Services (GATS) and the World Trade Organization (WTO) (van der Wende, 2001). This discourse impacts newly established competitor nations that are expanding incoming international student enrollments, as well as the United States and Western Europe as leading yet declining host nation destinations (Zachrisson, 2001). The case of China exemplifies this position. In 2004, China was a leading sending country as defined by the nation's 343,126 university degree seeking students who studied abroad annually (UNESCO, 2006). In recent years China has also emerged as a popular host nation, as noted by expanding incoming international student enrollments from less than 45,000 in 1999 to more than 141,000 in 2005 (McCormack, 2007). Similar trends are occurring in Japan, South Korea, India, Malaysia, Thailand, and Taiwan.

Trends in Taiwan reflect traditional East Asian patterns; substantial numbers of university students from Taiwan studied in the United States and Britain while very few incoming international students chose the island nation as a host destination. Foreign students are the bridges of a nation to the international society. The number of students studying in Taiwan indicates the level of internationalization and international competitiveness of the nation's education, as well as representing the nation's power and ability to attract foreigners. In 2007, the total number of students (including degree-level, exchange, and language study students) reached 17,742, which registers an increase of 3,263, compared to the 14,479 count in 2006 (Ko, 2008). Between 2001 and 2005 incoming international student enrollments from Central and South America increased 208 percent and 95 percent from European nations. Incoming students from Vietnam comprise the largest group, followed by Malaysia, Indonesia, Japan and the United States. Scholars attribute the rising population of incoming international students to the global popularity of Mandarin studies, the growing reputation of Taiwan universities as world class institutions, and availability of scholarships administered by the Taiwan Ministry of Education (MOE) (Ko, 2008).

REVIEW OF LITERATURE

The examination of globalization and internationalization as distinct processes is essential for serious scholarship addressing contemporary trends in higher education. Globalization is a multifaceted phenomenon enveloped by economic, social, political

and cultural dimensions that meld 21st century higher education to international endeavors. The impact of globalization poses challenges to the role of nations as the sole providers of higher education and to academic communities as the primary voice for education decision-making. Processes of globalization within university settings transcend the integration of research, the use of English as the language of academia, the expanding international market for scholars, the growth of multinational publishing, and reliance on information technology (Altbach, 2003).

Scholars agree that processes of globalization are unalterable while those representing internationalization remain fluid and changeable (Mok, 2007). Internationalism, says, Elkin, Devjee and Farnsworth (2008, p. 326) "is not something that is either achieved or not achieved: rather it is an engagement with a range of dimensions." Processes of internationalism are intertwined with a multiplicity of university administration policy, initiatives, and practices adopted in response to the affects of globalization (Scott, 1998) as noted by association with terminology such as: transnational, global, world, international, and cross-border education (Knight, 2002).

The examination of international student mobility trends and patterns is well established by a body of research identified with the push-pull framework (Agarwal & Winkler, 1985; Altbach, 1997; Cummings, 1993; Fry, 1984; Sirowy & Inkeles, 1985). This research suggests that international student's progress through developmental stages of decision making beginning with commitments to study internationally and ending with the selection of host institutions. Researchers defined research push factors as conditions in home nations that engender interest in university education beyond national borders. Pull factors are attributes of a host nation that attract international students and affect the decision-making process for study at particular institutions (Mazzarol, 1998).

Agarwal and Winkler (1985) quantified pull factors for the United States as a host destination among students from 15 developing nations. They noted that the percentage of international students enrolling in United States universities has declined in recent years. This shift was attributed to the rising cost of United States tertiary education and the multitude of university program options in students' home nations. As such a contemporary trend is involves nations that traditionally sent large numbers of students abroad; in recent years these nations have also become successful international centers via the offering of degree programs in English at a low expense (Chan & Ng, 2008).

In a related study McMahon (1992) used a push-pull model to statistically examine the mobility patterns of international students from 18 developing countries. Findings suggested that student flow was dependent on the level of economic wealth,

the degree of involvement of the destination country in the world economy, and the priority placed on education by the home nation government. McMahon noted a negative correlation between economic prosperity in home countries and the volume of international student flow. Significant pull factors included the size of host nation economies and their political interests as evidenced by foreign assistance, transnational cultural links, and availability of international student scholarships.

In a summative study Massarol (1998) surmised that six pull factors consistently influence students' selection of host nations and institutions. The overall level of knowledge, access to information, and awareness of the destination nation within students' home country represented a critical pull factor. The reputation of host institutions for quality and the recognition of their degrees in students' home nations were significant attributes of this factor. A second pull factor was the number of personal recommendations students received from parents, relatives, friends and gatekeepers. The third factor related to financial issues, including the expense of fees, living, and travel along with social costs, such as crime, safety and racial discrimination. The presence of other students from home nations and the option for part-time work were important attributes of this factor. Additional factors included: the environment, as related to perceptions about the climate in the host country; the geographic and time proximity between home and host nations; and social links defined as family or friends residing in the destination country.

The utility of the push-pull framework is apparent given the identification of factors affecting mobility patterns and trends of university international students from developing nations. Yet in some respects this framework compromises attention to the complexities associated with the international student experience. Limitations are noted in terms of the exclusion of international students from developed countries who pursue tertiary level education in either developing or other developed nations. The design of the push-pull framework, moreover, locates the national identity of international students as a reference for commonality; thus international students are defined as a homogenized group rather than as clusters of individuals who have significant differences between and within their nationalities.

Critics argue that scholarship addressing the complexities of the international student experience remains on the fringe of cross-border education literature due in part to a deficit of concepts to articulate the multidimensional complexities of international students' experiences. In response, a transnational lens is offered to illuminate theoretical and critical interpretations intended to examine the "persistent pull of 'locality' as a social space of identity formation" (Smith & Guarnizo, 1998, p. 22)

RESEARCH DESIGN

Data collection and Analysis

The research was designed as a quantitative research method study. Beginning research questions included:

1. What are the benefits and dilemmas associated with the international student population in terms of institutional commitments for the expansion of internationalization for Taiwan's higher education institutions?
2. What are the interpretations of participants in regard to the issues and dilemmas surrounding the international student experience?

Scholars, who conduct research involving international dimensions, note the importance of primary sources as a viable option for data collection (Pinar, Reynolds, Slattery, & Taubman, 1996). In response the investigation was initiated with a review of sources to develop a contemporary reference for the dilemmas and issues of globalization in Taiwan. The inspection of written documents such as books, periodicals, newspapers, and legal documents to gain a foundation for the history, geography, ecological needs, and community efforts at work in Taiwan were ongoing during all stages of investigation.

The survey respondents included 648 degree seeking international students from 23 countries. The survey was used to gather information at a particular point in time with the intention of describing the nature of existing conditions of international student in Taiwan universities (Cohen, Manion, & Morrison, 2007). Given this focus the survey was organized by section: Section One: *Experiences before and after coming to Taiwan* dealt with the logistical and emotional aspects of student mobility, Section Two: *Educational experiences in Taiwan*, addressed reasons for choosing Taiwan and particular universities, Section Three: *Social norms*, examined international students' circle of friends, social interaction norms, and classroom norms, Section Four: *Cultural norms*, focused on the cultural aspect of the international students' experiences in Taiwan, and Section Five *International Students' Demography*, detailed background information including international students' social status and scholarship information.

The study utilizes an online survey to gather the information regarding the international students all over Taiwan. The design of the online surveys were kept to a minimum and layout is user friendly, instructions are clear and simple, thus helped in increasing the completion rate of the survey (Dillman, 1999; Dillman, Tortora, & Bowker, 1998; Dillman, Tortora, Conradt, & Bowker, 1998). The survey data was

statistically analyzed using the mean, standard deviation, frequency and percentage, correlations, and other cross-tabulations to determine the various descriptive summaries of the survey. A revised survey questionnaire was used based on Roberts, Chou, and Ching's (2010) international student survey. The survey questionnaire was administered on a voluntary basis in October 2008. An email was sent to all the international student offices all throughout Taiwan. The questionnaire was written in two versions: English and Chinese which required approximately 10-20 minutes for completion. A total of 648 participants' representative of 23 countries completed the questionnaire. Table 1; show that Mandarin Chinese was the predominant first language of participants (39%), which would indicate that most of the international students are from countries such as Mainland China, Macau, and Hong Kong. This is then followed by Vietnam (10%), and Indonesian (9%). Participants' second languages included English (53%), Mandarin Chinese (20%), and Malaysian (7%). Around 76% of the sample consisted of international students studying abroad for the first time. In addition, around 80% of the respondents are degree seeking students, with the remaining participants as exchange program students (7%) and Mandarin Chinese Language students (2%). Data gathered from the survey questionnaire were encoded and analyzed using the Statistics Package for Social Science (SPSS) version 15. Internal consistency using Lee Cronbach's (1951) coefficient alpha (Cronbach's alpha) was computed at 0.89, suggesting a high level (Nunnally & Bemstein, 1994). Descriptive analysis included the mean, standard deviation (SD) and cross-tabulation of participants' multiple responses for identified questions.

Table 1

Participant demographics (N=648)

Items	*n*	%	*M*	*SD*
Age	648		24.63	6.39
Gender				
Male	297	46	23.87	5.16
Female	346	54	25.28	7.23
First language				
Mandarin Chinese	251	39		
Vietnamese	67	10		
Indonesian (Bahasa)	61	9		
Spanish	47	7		
English	37	6		
Japanese	27	4		
Malaysian (Malay)	21	3		
Cantonese	19	3		
Thailand (Thai)	15	2		
Korean	13	2		
Second language				
English	345	53		
Mandarin	131	20		
Malaysian (Malay)	44	7		
Enrolled program type				
Degree Seeking	526	81		
Exchange Program Student	43	7		
Chinese Mandarin Language Center	12	2		
Study abroad experience				
Yes	112	17		
None	493	76		
Work experience in Taiwan				
Yes	179	28		
None	424	66		

Results and Discussions

Experiences before and after coming to Taiwan

Section one depicts the *experiences before and after coming to Taiwan*, which dealt with the logistical and emotional aspects of student mobility. Choosing a host nation involves decisions made with high involvement and commitment, due in part to the expanding options for study abroad destinations around the globe (Cubillo, Sanchez, & Cervino, 2006). One of the most promising factors in Taiwan's higher education is the presence of scholarship opportunities for international students.

Table 2
Scholarship type and expenditures (N=432)

Items	*n*	%
Scholarship type		
Ministry of Foreign Affairs (MOFA)	61	14
Ministry of Education (MOE) – Taiwan Scholarship	104	24
Huayu Enrichment Scholarship	2	0
National Science Council	9	2
Ministry of Economic Affairs	111	26
Others	118	27
Information regarding the scholarship		
Taipei Economic and Trade Office (TECO)	61	14
School	274	63
Friends	136	31
Relatives	49	11
Newspaper	13	3
Self-research	69	16
Others	28	6
Average monthly expenditures		
Below 10,000	299	46
10,001 to 15,000	165	26
15,001 to 20,000	64	10
20,001 to 25,000	25	4
25,001 to 30,000	28	4
Above 30,000	23	4

Table 2 shows that of the 432 of the 648 respondents (67%) received scholarships offered by either the Taiwan Scholarship Program (jointly funded by the MOE, the Ministry of Foreign Affairs, the Nation Science Council, and the Ministry of Economic Affairs) or the MOE Mandarin Enrichment Scholarship Program (funded by the MOE). Applications for both scholarships are submitted to Taiwan overseas missions located in students' home nations. Majority are in scholarships given through their universities here in Taiwan, with a value of 118 or 27%. This is then followed by the Ministry of Foreign Affairs scholarship, which is given to countries that have diplomatic ties with Taiwan, with a value of 111 or 26%. The third largest is the scholarship given by the Ministry of Education (more commonly called the Taiwan Scholarship), with a value of 104 or 24%. When asked regarding how the international students gathered the information regarding the scholarship offers. Respondents responded that majority of them learnt about the scholarship in their school back in their country, with a value of 274 or 64%. This is followed by word of mouth transfers from their peers and friends back home, with a value of 136 or 31%. The third is self-research with a value of 69 or 16%.

The availability of host nation government scholarships is well established as a significant pull factor (Agarwal & Winkler, 1985; Cummings, 1993). Given this, the popularity of Taiwan government scholarships could be viewed as a contributing factor for the expanding international student enrollments. That said participants' rationale for receiving Taiwan scholarships was not typically linked to financial hardship. Table 2 also summarizes the average monthly expenditures in Taiwan Dollars of the international student in Taiwan. Majority of the students mentioned that they spend below 10,000 NT a month with a value of 299 or 46%. While 165 or 26% of the respondents claimed that they spent around 10,001 to 15,000 per month in Taiwan. In reality, scholarships in Taiwan provide financial support from one to four years of study and range from NT 25,000 monthly for undergraduate students to NT 30,000 monthly for graduate students. These findings suggest some discrepancy in living standards given that newly graduated college students in Taiwan earn from NT 26, 000 to 28, 000 monthly (CENS, 2008).

In many nations incoming international students represent the premier source for university internationalization. As a newly emerging competitor host nation, Taiwan envisions its national system of higher education as an international center, where people from around the world come to learn from each other. As such the MOE government scholarships enhance the cultural composition of Taiwan universities' student bodies and contribute to institutional prestige (Lo & Weng, 2005; Mok & Tan, 2004). The immersion of international students among the NCCU local students represents, therefore, a pivotal objective of the university efforts for

internationalization.

Educational experiences in Taiwan

With regards to the educational experiences in Taiwan, students are ask questions regarding the difficulties before coming to Taiwan, challenging aspects in Taiwan, difficulties with regards to educational aspects, and reasons in choosing a place of study in Taiwan. As a reminder, the items are analyzed initially by their weighted scores, items ranked number 1 is given a weight of 3, ranked 2 is given a weight of 2, while the ranked 3 is given a weight of 1. Table 3 shows the result for the difficulties encountered before coming to Taiwan. The highest difficulty item is the *application of the Taiwan Visa* with 309 or 48%, while the second difficulty item is the actual *Scholarship applications* with 190 or 29%. The third most difficulty item is the *Lack of sufficient information regarding course programs* with 176 or 27%. These results suggest that Taiwan should invest more efforts in enhancing its visa processing procedures for the international students coming to Taiwan. However, such enhancement might be limited to the political issues surrounding the country, which is beyond the discussion of the current study.

Table 3
Difficulties encountered before coming to Taiwan (N=648)

Items	*n*	Weighted scores[a]
Taiwan visa application	309	708
Scholarship applications	190	389
Lack of sufficient information regarding course programs	176	324
Selecting which school to apply	150	301
Emotional preparation	137	237
Communicating with Taiwan's university	92	169

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

With regards to the challenges encounter in Taiwan, international students mentioned that the most challenging aspect is the *Memorizing Chinese character* with 170 or 26%. The second most challenging aspect is regarding the international

students' *social relationships* in Taiwan with 172 or 27%. The third most challenging aspect in Taiwan is the *Adjusting to the weather* with 166 or 26%. Such results describe the difficulties of international student during their first few months in Taiwan, while some even suggest that they (international students) should be given enough orientation regarding the cultural and contextual issues regarding Taiwan, before even they travel to Taiwan.

Table 4
Challenging aspects in Taiwan (N=648)

Items	*n*	Weighted scores[a]
Memorizing Chinese character	170	402
Social relationship	172	334
Adjusting to weather	166	316
Cultural gap	136	255
Adjusting to food	124	252
Homesickness	112	214
Transportation	97	184
Being a non-English speaker	70	155

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

With regards to the international students difficulties with regards to their study here in Taiwan, most students mentioned that there seem to exist a problem with the *Understanding teachers' lessons/lectures* with 216 or 33%. Table 5 also shows that the item *expressing or giving your opinion to your teacher* with 190 or 29% and the item *expressing or communicating in Chinese* with 177 or 27%. These results suggest that international students are not properly oriented in the educational system of Taiwan. Local faculty and staff should be brief with regards to the study habit of the international students as well.

Table 5

Difficulties with regards to educational aspects (N=648)

Items	*n*	Weighted scores[a]
Understanding teachers' lessons/lectures	216	451
Expressing or giving your opinion to your teacher	190	441
Expressing or communicating in Chinese	177	417
Making oral presentation	199	370
Working on group project	150	336
Studying in a different educational system	150	288
Completing assignment on time	63	131
Managing your study load	45	88

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Table 6 shows the reasons why the international students select their current school in Taiwan. The main reason is the item *recommended by friends/classmates* with 240 or 37%. The second reason is the *surrounding suitable for learning* with 232 or 36%. And lastly, the third reason is the *direct contact form an institution in Taiwan* with 127 or 20%. Such results indicate that the power of the word of mouth exhibits the greatest influence in the international students' choice of schools. Hence, institutions should give outgoing international students a sort of orientation or a somewhat good impression, so as to aid in the recruitment of new international students.

Table 6

Reasons for choosing your current institution (N=648)

Items	*n*	Weighted scores[a]
Recommended by friends/classmates	240	568
Surrounding suitable for learning	232	485
Direct contact form an institution in Taiwan	127	266
Degree program availability in English	118	264
Random chance	110	223
Informative website	101	201
Mandarin Chinese language program	74	148
Recommended by embassy	59	125
Existing student exchange program	44	102

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Social norms

In recent years, the concept of social capital has captured the imagination and attention of an extensive range of scholars and professionals in various disciplines and practical arenas (Lin, 2008). Similarly, social capital has been used to shed light on the relationship between the micro-level of educational experience and the macro-level of social forces and structures (Burnheim, 2003). Scholars noted that the concept of social capital has expanded from an individual asset to a feature of communities and even nations (Portes, 1998). As such, multiple definitions, conceptualizations, and empirical measurements are generated (Dika & Singh, 2002). However, the popularity of the concept of social capital has been accompanied by increasing controversy about its actual meaning and effects (Mouw, 2006; Portes, 2000).

Simply, social capital can be defined as "the investment in social relations with expected returns in the marketplace" (Lin, 2002). This general definition is consistent with the works of noted scholars such as Bourdieu (1986), Burt (1992), Coleman (1988, 1990), Flap (1991, 1994), Lin (1982), Portes (1998), and Putnam (1993, 1995, 2000). During the late 1980s, education sociologists Bourdieu (1986) and Coleman (1988) both emphasized the functional value of social networks and group membership as resources which can be leveraged by individuals to obtain access to other resources. In addition, both authors placed much emphasis on the role of

education and in particular the role of the social environment in determining educational outcomes.

In an educational setting social capital is defined "as the networks, together with norms, values, and understandings that facilitate cooperation with or among groups." (Healy, Cote, Helliwell, & Field, 2001) In a study of Australian universities, Burnheim (2003) noted that it is important to understand (1) the particular role of social capital in the networks and networking within the universities, which themselves constitute capital, and (2) the universities' roles in the creation of the norms, values, and understandings which enable networks to operate. Similarly, in a mixed method study regarding international students in Australia, Neri and Ville (2006) noted that poor social networks in unfamiliar cultural and educational institutions have an adverse impact on the wellbeing and academic performance of the students.

Table 7

Social interaction norms (N=648)

Items	*n*	Weighted scores[a]
I want more Taiwanese friends	259	623
Taiwanese students have positive feelings towards me	205	423
I try my best to make friends	181	358
Taiwanese would like to know international students	175	331
Taiwanese students should take first step	96	213
It is difficult to make friends with Taiwanese students	67	156
My Chinese ability hinders me from making friends	71	145
I experience discrimination in Taiwan	54	110
Taiwanese students prefer fewer international students	35	69

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

To further clarify the issues in the network and norms of international students in Taiwan, the following two sections shall focus on these parts, namely: the social

norms and the cultural norms experienced in Taiwan. Table 7 shows the result when the international students were asked regarding their social interaction norms in Taiwan. Most students replied that they *wanted to have more Taiwanese friends* with total respondents of 259 or 40%. This is followed by the item *Taiwanese students have positive feelings towards me* with total respondents of 205 or 32%. The third item is *I try my best to make friends* with total respondents of 181 or 28%. These three top results depict that international students are indeed accepting of Taiwanese students as not only their peers or classmates, but their friends as well.

Table 8 shows the international students aspects regarding their campus and classroom norms. The highest ranked is the item *teachers encourage interaction* with 144 or 22%. While the second is the item *teachers make special effort to help international student* with 162 or 25%. And the third is the item *cultural differences are respected inside the school* with 92 or 14%. Note that although the percentage of the international students selecting the item is not high, however, by looking at their weighted scores, the international students selected this three items as the major norms in the campus and classroom category.

Table 8
Campus and classroom norms (N=648)

Items	*n*	Weighted scores[a]
Teachers encourage interaction	144	568
Teachers make special effort to help international student	162	485
Cultural difference is respected in school	92	266
Teachers understand problems of international student	143	264
Opportunity to learn from other culture	110	223
Feel included in class	130	201
Teachers understand cultural differences in learning	81	158
Classmates are accepting of cultural differences	136	148
Student of different groups work well	136	125

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Table 9 depicts the international students' circle of friends in different situations,

such as: social and educational. Results indicate that the international students' educational and social time is mostly done with Taiwanese students, while their closest friends are still their friends from their own home country.

Table 9

International students' circle of friends (N=648)

Items	*n*	Weighted scores[a]
Studying and reviewing lessons		
Taiwanese students	334	**909**
Students from other countries	236	592
Students from their own country	211	411
During social activities		
Taiwanese students	345	**903**
Students from other countries	303	745
Students from their own country	244	458
Closest friends		
Taiwanese students	289	716
Students from other countries	293	**791**
Students from their own country	197	391

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Cultural norms,

The students are also asked regarding their perception of what is the accepted fact in the world today. Majority of the international students agrees that *advancement in technology* is the most prominent discovery of our generation, next to the *learning of Mandarin Chinese language*. Such results indicate that the changes in language needs are both ways, to the East the Mandarin Chinese and to the West the English language.

Table 10

Accepted fact in today's society (N=648)

Items	*n*	Weighted scores[a]
Technology connects people	180	393
Technology makes the world smaller	175	384
Learning Mandarin Chinese is the current trend	184	364
Local traditional customs should be maintain	166	347
People should leave together in harmony	124	275
English is most widely spoken language	86	196

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Table 11 and table 12 shows the discouraging and distinct Taiwanese cultures which the international students felt unique and different, while some of items selected are considered norm to the Eastern or Asian culture. Much to the surprise of the selection of activities regarding night market as one of the major Taiwanese cultures the international students felt worth recalling.

Table 11

Discouraging Taiwanese cultural norms (N=648)

Items	*n*	Weighted scores[a]
Chopsticks	139	366
Fortune telling	127	260
Poultry slaughtering in market	83	181
Eating hotpot	60	111
Eating bethel nut	55	102
Incense burning	53	95
Going KTV	47	93
Shopping at night market	23	36

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

Table 12

Distinct Taiwanese cultures (N=648)

Items	*n*	Weighted scores[a]
Shopping at night market	289	662
Eating at night market	220	493
Garbage segregation (sorting of garbage)	269	484
Poultry slaughtering in market	134	299
Eating hotpot	148	279
Going KTV	82	172
Eating bethel nut	71	157
Environmentally conscious	66	134
Chopsticks	12	32
Incense burning	12	26
Fortune telling	15	25

Note. [a]The respondents' rankings were given corresponding weights (e.g. 1st priority – 3, 2nd priority – 2, and third priority – 1) before computing for the individual scores of each item.

IMPLICATIONS AND CONCLUSION

This article contributes to discourse examining the opportunities and challenges of international student enrollments in institutions of higher learning around the globe. In scope it details an empirical study exploring the dispositions of international students in terms of their academic and social spheres. The use of quantitative methods provided clarity and extended critical interpretations of the issues and dilemmas surrounding the international student experience. Universities committed to internationalization are called to address the realities – both positive and negative – of operating as globally competitive institutions. This implies that attracting the right kind of international students and determining standards for their contribution to campus life are more important goals than the total number of international students. The term *diploma disease*, coined by Dore (1976) signifies this phenomenon. Dore argues that the sheer magnitude of students traveling internationally in the pursuit of advanced degrees, diplomas, or certifications has shifted the purpose and direction of tertiary education. Education, says Dore, is not a commercial endeavor defined by time or space but rather the harmonious development of the physical, mental, moral, and social dimensions of life necessary for engagement with opportunities to gain both knowledge and wisdom. This stance suggests that determining the form of higher education best suited for the academic community should remain a pressing issue side

by side engagement with contemporary processes of internationalization.

The Taiwan government efforts to develop national policies and set targets to attract substantial numbers of international students are impressive. Yet ingoing international students to Taiwan universities experience unhappiness and disorientation on arrival from their home nations. Most are successful in terms of building a circle of friends and booming happier over time. However, the friendships are typically with international student peers from the same nation, which provides fellowship and empathy but limited opportunities for connections with Taiwan students and to learn about local culture and institutions. With regards to the benefits and dilemmas associated with the international student population in terms of institutional commitments for the expansion of internationalization for Taiwan's higher education institutions. Taiwan's higher education institutions are heavily committed to increase the numbers of international students. However, some issues are needed to be taken into account such as the proper orientation of incoming and outgoing international students. In addition, faculty and staff should also undergone proper training or orientation regarding on how to handle issues with the international students. The majority of international students make little or no use of formal university sanctioned organizations widely associated with the benefits of social capital as noted in the literature. Many international students accept paid employment, often for long hours and with limited social capital benefits besides language improvements. These international students could derive the benefits of social capital by committing a greater amount of time to university organizations and fewer hours to paid employment. As well many international students report a high degree of residential instability, which disrupts both their social connections and academic study.

In sum, the growth in number of international students and their share of total enrollments is a contributing factor to the higher education landscape in Taiwan. It has provided an enriched and more diverse cultural experience on Taiwanese campuses, and a range of economic and social benefits for local communities. Hence, social interaction and activities should be encouraged in order to effectively enhance the social capital of all students on university campuses. The ability of international students to form social networks with local Taiwanese moreover is viewed as an important factor in the further enhancement of Taiwan's higher education international dimension.

REFERENCES

Agarwal, V. B., & Winkler, D. R. (1985). Foreign demand for United States higher education: a study of developing countries in the eastern hemisphere. *Economic Development and Cultural Change, 33*(3), 623-644.

Altbach, P. G. (1997). *Comparative higher education: Knowledge, the university and development*. Chestnut Hill: Center for International Higher Education, Boston College and Ablex Publishing Corporation.

Altbach, P. G. (2003). Why the United States will not be a market for foreign higher education products: A case against GATS. Retrieved September 26, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News31/text003.htm

Bohm, A., Meares, D., & Pearce, D. (2002). *Global student mobility 2025: Forecast of the global demand for international higher education*. Sydney: IDP Education.

Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241-258). Westport, CT: Greenwood Press.

Burnheim, C. (2003, July 3). *Networks and social capital in Australian Universities.* Paper presented at the Trading public good in the higher education market, University of Twente, Netherlands.

Burt, R. S. (1992). *Structural holes: The social structure of competition*. Cambridge, MA: Harvard University Press.

CENS. (2008). Easy, low-paying jobs gain popularity in Taiwan. Retrieved August 15, 2008, from http://www.cens.com/cens/html/en/news/news_inner_23920.html

Chan, D., & Ng, P. T. (2008). *Similar agendas, diverse strategies: The quest for a regional hub of higher education in Hong Kong and Singapore*. Paper presented at the 2008 CESHK Annual Conference.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education*. New York: Routledge.

Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology, 94*, 95-120.

Coleman, J. S. (1990). *Equality and achievement in education*. Boulder, CO: Westview Press.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 197-334.

Cubillo, J., Sanchez, J., & Cervino, J. (2006). International students' decision-making process. *International Journal of Educational Management, 20*, 101-115.

Cummings, W. K. (1993). Global trends in international study. In G. Craufurd (Ed.), *International investment in human capital*. New York: Institute of International Education.

Dika, S. L., & Singh, K. (2002). Applications of social capital in educational literature: A critical synthesis. *Review of Educational Research, 72*(1), 31-60.

Dillman, D. A. (1999). *Mail and internet surveys: The tailored design method* (2nd ed.). New York, NY: John Wiley & Sons.

Dillman, D. A., Tortora, R. D., & Bowker, D. (1998). Principles for constructing web surveys. Retrieved November 29, 2008, from http://survey.sesrc.wsu.edu/dillman/papers/websurveyppr.pdf

Dillman, D. A., Tortora, R. D., Conradt, J., & Bowker, D. (1998). Influence of plan versus fancy design on response rates of web surveys. Retrieved November 29, 2008, from http://survey.sesrc.wsu.edu/dillman/papers/asa98ppr.pdf

Dore, R. P. (1976). *The diploma disease*. Berkeley: University of California Press.

Elkin, G., Farnsworth, J., & Templer, A. (2008). Strategy and the internationalisation of universities. *International Journal of Educational Management, 22*(3), 239-250.

Flap, H. D. (1991). Social capital in the reproduction of inequality. *Comparative Sociology of Family, Health and Education, 20*, 6179-6202.

Flap, H. D. (1994). *No man is an island: The research program of a social capital theory.* Paper presented at the World Congress of Sociology, Bielefeld, Germany.

Fry, G. (1984). The economic and political impact of study abroad. *Comparative Education Review, 28*(2), 203-220.

Healy, T., Cote, S., Helliwell, J. F., & Field, S. (2001). *The well-being of nations: The role of human and social capital*. Paris, France: Organisation for Economic Co-operation and Development.

Kemp, S. (1995). *The global market for foreign students*. Adelaide: University of Adelaide.

Kirp, D. L. (2003). *Shakespeare, Einstein, and the bottom line: The marketing of higher education*. Cambridge, MA: Harvard University Press.

Kishun, R. (2007). The internationalisation of higher education in South Africa: Progress and challenges. *Journal of Studies in International Education, 11*(3/4), 455-469.

Knight, J. (2002). Trade creep: Implications of GATS for higher education policy [Electronic Version]. *International Higher Education, 28*. Retrieved September 20, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News28/text002.htm

Ko, S. L. (2008). International students in Taiwan at an all-time high. Retrieved June 11, 2008, from http://www.taipeitimes.com/News/taiwan/archives/2008/02/12/2003400913

Kwiek, M. (2005). The university and the state in a global age: Renegotiating the traditional social contract? *European Educational Research Journal, 4*(4), 324-342.

Lin, N. (1982). Social resources and instrumental action. In P. V. Marsden & N. Lin (Eds.), *Social structure and network analysis* (pp. 131-145). Beverly Hills, CA: Sage.

Lin, N. (2002). *Social capital: A theory of social structure and action*. London, UK: Cambridge University Press.

Lin, N. (2008). A network theory of social capital. In D. Castiglione, J. W. van Deth & G. Wolleb (Eds.), *The handbook of social capital* (pp. 50-69). New York, NY: Oxford University Press.

Lo, Y. W., & Weng, F. Y. (2005). Taiwan's responses to globalization: Internationalization of higher education. In K. H. Mok & R. James (Eds.), *Globalization and higher education in East Asia*. Singapore: Marshall Cavendish Academic.

Mazzarol, T. (1998). Critical success factors for international education marketing. *International Journal of Educational Management, 12*(4), 163-175.

McCormack, E. (2007). Worldwide competition for international students heats up. Retrieved September 27, 2008, from http://chronicle.com/temp/reprint.php?id=f36ykhngj7h7gc2cwr8cb8vfm6y1tzm7

McMahon, M. E. (1992). Higher education in a world market: an historical look at the global context of international study. *Higher Education Policy, 24*(4), 465-482.

Mok, K. H. (2007, November 14). *Internationalizing and international-benchmarking of universities in East Asia: Producing world class university or reproducing neo-imperialism in education?* Paper presented at the Realizing the Global University: Critical Perspectives Workshop, London.

Mok, K. H., & Tan, J. (2004). *Globalization and marketization in education: A comparative analysis of Hong Kong and Singapore*. UK: Edward Elgar Publishers.

Mouw, T. (2006). Estimating the causal effect of social capital: A review of recent research. *Annual Review of Sociology, 32*, 79-102. 10.1146/annurev.soc.32.061604.123150

Neri, F., & Ville, S. (2006). The social capital experience of international students in

Australia: The Wollongong experience [Electronic Version]. *Economics Working Papers*, from http://ideas.repec.org/p/uow/depec1/wp06-19.html

Nunnally, J. C., & Bemstein, L. H. (1994). *Psychometric theory*. New York: McGraw-Hill.

OECD. (2006). *Education at a glance: OECD indicators 2006*. Paris: Organisation for Economic Co-operation and Development.

Olsen, A. (2003). E-Learning in Asia: Supply and demand. Retrieved September 25, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News30/text004.htm

Pinar, W. F., Reynolds, W. M., Slattery, P., & Taubman, P. M. (1996). *Understanding curriculum: An introduction to the study of historical and contemporary curriculum discourses*. New York: Peter Lang.

Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24*, 1-24.

Portes, A. (2000). The two meanings of social capital. *Sociological Forum, 15*(1), 1-12.

Project Atlas. (2004). Atlas of student mobility. Retrieved September 20, 2008, from http://www.atlas.iienetwork.org/

Putnam, R. D. (1993). The prosperous community: Social capital and public life. *The American Prospect, 13*, 35-42.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy, 6*(1), 65-78.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York, NY: Simon and Schuster.

Scott, P. (1998). Massification, internationalization and globalization. In P. Scott (Ed.), *The globalization of higher education*. Buckingham: SRHE and Open University Press.

Sirowy, L., & Inkeles, A. (1985). University-level student exchanges: The U.S. role in global perspective. In E. G. Barber (Ed.), *Foreign student flows: Their significance for American higher education*. New York: Institute of International Education.

Smart, D., & Ang, G. (1993). The origins and evolution of the commonwealth full-fee paying overseas student policy 1975-1992. In W. J. Peachment & J. Williamson (Eds.), *Case studies in public policy* (pp. 111-128). Perth: Public Sector Research Unit.

Smith, M. P., & Guarnizo, L. E. (Eds.). (1998). *Transnationalism from below* (Vol. 6). New Brunswick: Transaction Publishers.

Teichler, U., & Jahr, V. (2001). Mobility during the course of study and after.

European Journal of Education, 36(4), 443-458.

UNESCO. (2006). Global education digest: Comparing education statistics across the world. Retrieved September 20, 2008, from http://www.uis.unesco.org/TEMPLATE/pdf/ged/2006/GED2006.pdf

van der Wende, M. C. (2001). Internationalization policies: About new trends and contrasting paradigms. *Higher Education Policy, 14*(3), 249-259.

Williams, P. (1981). *The overseas student question: Studies for a policy*. London: Heinemann Educational Books Ltd.

Zachrisson, C. (2001). New study abroad destinations: Trends and emerging opportunities. In M. Tillman (Ed.), *Study Abroad: A 21st century perspective, volume II, the changing landscape* (pp. 28-30). Stamford, CT: American Institute for Foreign Language.

CHAPTER 9. CONTEMPORARY TRENDS IN EAST ASIAN HIGHER EDUCATION:DISPOSITIONS OF INTERNATIONAL STUDENTS IN A TAIWAN UNIVERSITY

The cross-border mobility of international students constitutes a critical element of the internationalization of higher education. Heightened interest in recent decades has shifted traditional mobility patterns from an elitist experience characterized by scholarship or fellowship recipients to the mass movement of individuals and groups (Teichler & Jahr, 2001). In the 21st century a select number of students define themselves as members of elite groups enrolled in high-quality degree programs in popular host destinations; the majority, however, leave home nations to obtain degrees at any personal financial expense. Others are motivated to acquire international experiences that complement concurrent academic programs in home nations. Traditionally international students migrated for association with world renowned scholars or to further a disciplinary knowledge base in nations such as the United States or Britain; in the contemporary era university students are more likely to study in the global arena in newly established host destinations for advancement of degrees, diplomas, or professional certification (Williams, 1981).

The Institute of International Education (IIE) definition of an international student is, “one who undertakes all or part of his/her higher education experience in a country other than the home country (Project Atlas, 2004). More broadly, cross-border education is classified as a borderless asset of the global education industry that redefines traditional patterns and trends of international student mobility (Kwiek, 2005). Since 1995 the total number of international students has all but doubled, reaching nearly 2.7 million (OECD, 2006). Correspondingly the demand for global cross-border education is forecasted to increase from 1.8 million international students in 2000 to 7.2 million in 2025 (Bohm, Meares, & Pearce, 2002). Analysts predict that 70 percent of the global demand will be generated within the Asia Pacific region (Olsen, 2003).

In the contemporary era many nations have shifted foreign student policies from an aid approach to a trade rationale (Smart & Ang, 1993). Thus, signaling that

cross-border education is a commodity of free trade rather than a public responsibility (Kirp, 2003). Given this the market for international students has become a dynamic growth industry sustained by universities, government agencies, private corporations, and entrepreneurs motivated by financial profit (Altbach, 2003). National governments are keen to sustain active involvement through their Ministries of Education or dedicated promotional agencies (Kemp, 2007) that capitalize on the benefits of international student populations as linked to skill migration, economic growth, public diplomacy, and research associated with a knowledge society (Kishun, 2008).

Contemporary patterns of cross-border mobility encompass a complex, contradictory, and expansive discourse shaped by the discussions, policy issues, and mission statements of individual universities as well as the themes of education policy and global trade within the General Agreement on Trade in Services (GATS) and the World Trade Organization (WTO) (van der Wende, 2001). This discourse impacts newly established competitor nations that are expanding incoming international student enrollments, as well as the United States and Western Europe as leading yet declining host nation destinations (Zachrisson, 2001). The case of China exemplifies this position. In 2004, China was a leading sending country as defined by the nation's 343,126 university degree seeking students who studied abroad annually (UNESCO, 2006). In recent years China has also emerged as a popular host nation, as noted by expanding incoming international student enrollments from less than 45,000 in 1999 to more than 141,000 in 2005 (McCormack, 2007). Similar trends are occurring in Japan, South Korea, India, Malaysia, Thailand, and Taiwan.

Trends in Taiwan reflect traditional East Asian patterns; substantial numbers of university students from Taiwan studied in the United States and Britain while very few incoming international students chose the island nation as a host destination. In recent years the influx of international students to Taiwan has increased significantly, rising from 6,380 in 2001 to 21,005 in 2007 (Ko, 2008). Between 2001 and 2005 incoming international student enrollments from Central and South America increased 208 percent and 95 percent from European nations. Incoming students from Vietnam comprise the largest group, followed by Malaysia, Indonesia, Japan and the United States. Scholars attribute the rising population of incoming international students to the global popularity of Mandarin studies, the growing reputation of Taiwan universities as world class institutions, and availability of scholarships administered by the Taiwan Ministry of Education (MOE) (Ko, 2008).

While increasing international student enrollments in Taiwan universities are applauded by academic communities; scholarship examining the educational context and complexity of the international student experience remains limited (Ko, 2008). In response the following article details a mixed methods study conducted during the 2007 – 2008 academic year at the National Chengchi University (NCCU) in Taipei Taiwan. The research underscores the importance of international students' interpretations of the multiple meanings associated with their academic and social experiences in Taiwan and the sense of belonging within the NCCU community. Implications are offered as an East Asian exemplar and point of reference for the vision of internationalization at the NCCU.

REVIEW OF LITERATURE

The examination of globalization and internationalization as distinct processes is essential for serious scholarship addressing contemporary trends in higher education. Globalization is a multifaceted phenomenon enveloped by economic, social, political and cultural dimensions that meld 21st century higher education to international endeavors. The impact of globalization poses challenges to the role of nations as the sole providers of higher education and to academic communities as the primary voice for education decision-making. Processes of globalization within university settings transcend the integration of research, the use of English as the language of academia, the expanding international market for scholars, the growth of multinational publishing, and reliance on information technology (Altbach, 2003).

Scholars agree that processes of globalization are unalterable while those representing internationalization remain fluid and changeable (Mok, 2007). Internationalism, says, Elkin, Devjee and Farnsworth (2005, p. 326) "is not something that is either achieved or not achieved: rather it is an engagement with a range of dimensions." Processes of internationalism are intertwined with a multiplicity of university administration policy, initiatives, and practices adopted in response to the affects of globalization (Scott, 1998) as noted by association with terminology such as: transnational, global, world, international, and cross-border education (Knight, 2002).

The changing landscape of international student mobility signals significant shifts associated with the 21st century. Table I highlights the United States as the most popular destination, followed by the United Kingdom, Germany, France, Australia, and Japan. The 21 leading host countries include 12 member states of the European Union. Combined, these countries host nearly three quarters of a million international students, approximately 25 percent more than the United States.

Table I

Leading Host Nation Destinations (David, 2003)

Country	**Quantity**	**Country**	**Quantity**	**Country**	**Quantity**
United States	547,092	Belgium	37,789	Netherlands	13,949
United Kingdom	222,576	Canada	34,536	Jordan	12,154
Germany	185,179	Austria	30,064	Portugal	10,998
France	134,783	Switzerland	24,729	New Zealand	7,603
Australia	69,668	Italy	21,229	Denmark	7,124
Japan	59,656	Sweden	20,631	Ireland	5,564
Spain	40,506	Turkey	17,635	Korea	2,737

The profile of ideal host destinations, as suggested by the mobility patterns of international students, are nations that use English as an academic language, are recognized as industrialized, and maintain stable systems of higher education.

The examination of international student mobility trends and patterns is well established by a body of research identified with the push-pull framework (Lee, 1966; Sirowy & Inkeles, 1985; Fry, 1984; Cummings, 1993; Agarwal & Winkler, 1985; Altbach 1997). This research suggests that international students progress through developmental stages of decision making beginning with commitments to study internationally and ending with the selection of host institutions. Researchers defined research push factors as conditions in home nations that engender interest in university education beyond national borders. Pull factors are attributes of a host nation that attract international students and affect the decision-making process for study at particular institutions (Mazzarol, 1998).

Agarwal and Winkler (1985) quantified pull factors for the United States as a host destination among students from 15 developing nations. They noted that the percentage of international students enrolling in United States universities has declined in recent years. This shift was attributed to the rising cost of United States tertiary education and the multitude of university program options in students' home nations. As such a contemporary trend is involves nations that traditionally sent large

numbers of students abroad; in recent years these nations have also become successful international centers via the offering of degree programs in English at a low expense (Chan & Ng, 2008).

In a related study McMahon (1992) used a push-pull model to statistically examine the mobility patterns of international students from 18 developing countries. Findings suggested that student flow was dependent on the level of economic wealth, the degree of involvement of the destination country in the world economy, and the priority placed on education by the home nation government. McMahon noted a negative correlation between economic prosperity in home countries and the volume of international student flow. Significant pull factors included the size of host nation economies and their political interests as evidenced by foreign assistance, transnational cultural links, and availability of international student scholarships.

In a summative study Massarol (1998) surmised that six pull factors consistently influence students' selection of host nations and institutions. The overall level of knowledge, access to information, and awareness of the destination nation within students' home country represented a critical pull factor. The reputation of host institutions for quality and the recognition of their degrees in students' home nations were significant attributes of this factor. A second pull factor was the number of personal recommendations students received from parents, relatives, friends and gatekeepers. The third factor related to financial issues, including the expense of fees, living, and travel along with social costs, such as crime, safety and racial discrimination. The presence of other students from home nations and the option for part-time work were important attributes of this factor. Additional factors included: the environment, as related to perceptions about the climate in the host country; the geographic and time proximity between home and host nations; and social links defined as family or friends residing in the destination country.

The utility of the push-pull framework is apparent given the identification of factors affecting mobility patterns and trends of university international students from developing nations. Yet in some respects this framework compromises attention to the complexities associated with the international student experience. Limitations are noted in terms of the exclusion of international students from developed countries who pursue tertiary level education in either developing or other developed nations. The design of the push-pull framework, moreover, locates the national identity of international students as a reference for commonality; thus international students are defined as a homogenized group rather than as clusters of individuals who have significant differences between and within their nationalities.

Critics argue that scholarship addressing the complexities of the international student experience remains on the fringe of cross-border education literature due in part to a deficit of concepts to articulate the multidimensional complexities of international students' experiences. In response, a transnational lens is offered to illuminate theoretical and critical interpretations intended to examine the "persistent pull of 'locality' as a social space of identity formation" (Smith & Guarnizo, 1998, p. 22).

A transnational lens is defined as "an unbounded terrain of interlocking egocentric networks that extends across the borders of two or more nation-states and that incorporates participants in the day-to-day activities of social reproduction in these various locations" (Fouron & Schiller, 2001, p. 544). Case study research presented in the text, *Crossing Customs: International Students Write on U.S. College Life and Culture*, exemplifies this definition. An emphasis on participant voice was considered a central method to examine international student experiences in terms of contrasts between familiarity and differences of daily life experience and the academic arena of host institutions. Guiding themes reveal the importance of renegotiating identities and developing habits of mind to consider the multitude of personal and professional options offered by the international student experience. The case study research contributes to discourse that (a) addresses the intersections of students' past, present, and future; (b) challenges critical interpretations of the issues and dilemmas surrounding the international student experience and; (c) refutes generalizations that international students are a homogeneous group who share common experiences in host nations (Smith & Guarnizo, 1998).

RESEARCH DESIGN

Research Setting

The East Asian island nation of Taiwan is internationally recognized for its economic accomplishments in high-tech manufacturing, including the semiconductor and optoelectronics industries (Yang, 2007). Taiwan ranks 19th worldwide in terms of knowledge based economic competitiveness (World Bank Assessment, 2007). Policymakers and scholars examining the *Taiwanese economic miracle* (Yang) cite factors such as land reform, United States aid, the establishment of export processing zones, government industrial policies, and a strong work ethic as elements of economic growth.

In recent years critics in Taiwan have associated the 2007 presidential election of Ma Ying-jeou, a Kuomintang politician, with the nation's lagging economic growth (Wong, 2008). Mr. Ma ran on a platform of improving the economy through closer ties with China. The presidential election was viewed as a referendum on policies for Taiwan independence instituted by the former president, Chen Shui-bian. The role and influence of education in the current political climate is viewed as a key to Taiwan's economic growth (Wong, 2008). In 2000 the Taiwan government launched a series of initiative to transform and restructure prominent universities such as the NCCU. These initiatives committed government investment funds to accelerate the establishment of Taiwan institutions as world class universities and further seal the internationalization of higher education across the nation.

As a leading Taiwan institution of higher education the NCCU is committed to produce leaders that are humane, professional, innovative and cosmopolitan for the 21 century:

> *We aim to serve as leaders in innovation and explore the new fields of knowledge in response to the changing times, in order to become the leading academic institution in Taiwan, Asia and even the world. We will develop our unique features in teaching, researching, and service, on campus and in internationalization (Wu, 2008).*

The vision of the current NCCU president resonates with the institution's active efforts toward internationalization involving approximately 12,000 students, 33 departments, and 47 MA programs. Internationalization is an integral element of the NCCU mission statement and strategic plans. As such the NCCU maintains close global contact with more than 150 universities and research institutes through a wide range of national and international projects. Opportunities for faculty exchanges and recruitment of international students are ongoing via a wide range of mutual cooperation agreements with institutions in Europe, the United States, Canada, Australia, New Zealand, Japan, India, South Africa, Korea, China and Latin America.

Data Collection and Analysis

The research was designed as a mixed method study. Methodology from both qualitative and quantitative paradigms were systematically combined (Johnson & Christensen, 2008). Beginning research questions included:

1. What are the benefits and dilemmas associated with the NCCU international student population in terms of institutional commitments for the expansion of internationalization?

2. What are the interpretations of participants in regard to the issues and dilemmas surrounding the NCCU international student experience?

Scholars, who conduct research involving international dimensions, note the importance of primary sources as a viable option for data collection (Pinar, Reynolds, Slattery & Taubman, 1996). In response the investigation was initiated with a review of sources to develop a contemporary reference for the dilemmas and issues of globalization in Taiwan and the NCCU. The inspection of written documents such as books, periodicals, newspapers, and legal documents to gain a foundation for the history, geography, ecological needs, and community efforts at work in Taiwan were ongoing during all stages of investigation.

Procedures for both qualitative and quantitative data collection and analyses were completed in sequential phases by means of a convenience sampling technique (Stewart & Shamdasani, 1990). Data collection involved 88 participants from 17 countries, enrolled in the NCCU Mandarin Studies Program as full-time language students or with transition status to undergraduate and graduate programs. For the purposes of this research, participants were defined as those who (1) were citizens or permanent residents of a country other than Taiwan; (2) had legal residence outside of Taiwan; and (3) were in Taiwan solely for educational purposes on temporary student visas.[1] The qualitative data set included 5 videotaped and voice recorded focus group interviews, the daily upkeep of a focus group field log, and biweekly researcher debriefing sessions. The quantitative data set consisted of a structured survey questionnaire designed to provide both descriptive and inferential evidence. Summaries and descriptions of the data collection procedures and analyses are outlined as Phase One and Two.

Phase One: A standardized written announcement was posted throughout the Mandarin Studies building and public student areas one week prior to scheduled focus group interviews. The announcement briefly introduced the study, included researchers' contact information, as well as the dates, times, and location of focus group interviews. In May 2008 focus group interviews convened on five consecutive days during the student lunch hour in a public yet semi private space near the Mandarin Studies classrooms. Participation was voluntary; pizza, cheese cake, and

soft drinks were offered as incentives. Each focus group included 6-12 students along with one bilingual Chinese-English interviewer and assistant. Participants included 33 students ranging in age from 18 to 36; they represented 17 nations (Belgium, Brazil, Chile, France, Hungary, Indonesia, Iraq, Jordan, Kiribati, Korea, Mexico, Mongolia, Nicaragua, Philippines, Russia, Ukraine, and the United States). Interviews were conducted in English; participants responded using both English and Chinese.

Development of the interview guide followed principles outlined by Stewart and Shamdasani (1990) as the funnel approach; six unstructured, open-ended questions were ordered from general to specific as a strategy to engage the interest of participants. Interview procedures included an introduction of the group discussion, overview of the topic, ground rules, and the initial question. All interviews were videotaped and voice recorded.

Documentation and analysis followed Stenhouse's (1988) categorization style of case data. The interviewer summarized key themes, reflections, and insights in a field log after each session. Minor adjustments were made for subsequent interviews based on a review of the field logs. Researchers independently reviewed field logs and focus group recordings to generate a list of key themes. Biweekly two hour sessions were scheduled to individually present and discuss emerging themes. The aim of the biweekly sessions was to identify trends and patterns that reappeared within either a single focus group interview or across them. A case record was established for each focus group interview. Data were kept intact as a way to illuminate meaning and insights in relation to case by case processes and to gleam themes and sub-categories across all cases under study. This approach limited the possibility of losing important themes of each case (Stenhouse, 1988). Primary themes were determined after all data were transcribed as case records. Topics and emerging themes were recorded and a master list was generated. A reexamination of case records was completed followed by formation of one case study.

Phase Two: A survey questionnaire was developed based on key themes generated from analysis of the focus group interviews and a review of the push-pull model literature. A pilot test was administered to a small sample and minor revisions were made. The survey questionnaire was administered on a voluntary basis in June 2008 in a public area of the Mandarin Studies building during the student lunch hour. Incentives for completion of the questionnaire included NCCU pens, candy, and various Taiwan souvenirs. The questionnaire was written in English and required approximately 10-20 minutes for completion.

A total of 45 participants representative of 22 countries completed the questionnaire. Table II shows that English was the predominant first language of participants (27%), followed by Spanish (11%), and German (9%). Participants' second languages included English (44%), Mandarin Chinese (26%), and French (10%). Just over half of the sample (51%) consisted of international students studying abroad for the first time. Approximately one-third of the participants were enrolled in NCCU degree programs; all others were full-time students in the university Mandarin Studies program.

Table II

Participant demographics (N=45)

Factor	*n*	%	*M*	*SD*	Min.	Max.
Age	45		25.18	5.16	18	38
Gender						
Male	25	56	25.92	5.47		
Female	20	44	24.25	4.72		
First language						
English	12	27				
Spanish	5	11				
German	4	9				
Second language						
English	27	44				
Mandarin	16	26				
French	6	10				
NCCU Program						
Mandarin Studies	30	67				

Degree Seeking 11 24

Exchange Student 4 9

Study abroad experience [a]

First time 23 51

Two 13 29

Three 7 16

More than three 2 4

Note. [a] Number of short and/or long term study abroad experiences.

Data gathered from the survey questionnaire were encoded and analyzed using the Statistics Package for Social Science (SPSS) version 15. Internal consistency using Lee Cronbach's (1951) coefficient alpha (Cronbach's alpha) was computed at 0.89, suggesting a high level (Nunnally & Bemstein, 1994). Descriptive analysis included the mean, standard deviation (SD) and cross-tabulation of participants' multiple responses for identified questions.

RESULTS AND DISCUSSION

Factors Influencing International Students' Decisions to Study in Taiwan

Choosing a host nation involves decisions made with high involvement and commitment, due in part to the expanding options for study abroad destinations around the globe (Cubillo, Sanchez & Cervino, 2006). Eight factors identified as reasons for choosing Taiwan as a host nation are presented in Table III. While all factors contributed to the decision to study in Taiwan, some were significant to a majority of participants while others to only a small percentage.

The availability of established and highly recognized Mandarin language programs was rated as an important deciding factor. The significance of this factor is not surprising given that nearly all institutions of higher education receiving international students offer intensive courses in the primary languages of host nations. That said the importance of this factor suggests that Taiwan is globally profiled as a viable host destination. The availability of the NCCU Mandarin Studies Program

provided participants with a foundation of Mandarin for both social and academic mobility in Taiwan.

Additional factors included safety and security (14%) the view of Taiwan as a technologically modern nation (13%), the democratic system and political stability of the nation (9%), and word of mouth recommendations from former teachers (3%).

Table III

Reasons for choosing Taiwan (N=101)[a]

Factor	*n*	%
Scholarship	28	27
Mandarin Chinese study programs	19	19
Safety / security	14	14
Modern / technological advance country	13	13
Political / democratic country	10	10
Learn traditional characters	9	9
Recommended by teacher	3	3
Other	5	5

Note. [a]Each participant selected a maximum of three factors.

The most intriguing results were the unique opportunity that Taiwan provided to study traditional Chinese characters as opposed to simplified characters (9%) and the importance of Taiwan government sponsored scholarships. Twenty seven percent of participants rated Taiwan scholarship awards as critical to their decision to study in Taiwan.

Table IV illustrates that 91% of participants received scholarships offered by either the Taiwan Scholarship Program (jointly funded by the MOE, the Ministry of Foreign Affairs, the Nation Science Council, and the Ministry of Economic Affairs) or the MOE Mandarin Enrichment Scholarship Program (funded by the MOE).

Applications for both scholarships are submitted to Taiwan overseas missions located in students' home nations.

The availability of host nation government scholarships is well established as a significant pull factor (Cummings, 1993; Agarwal & Winkler, 1985). Given this, the popularity of Taiwan government scholarships could be viewed as a contributing factor for the expanding international student enrollments. That said participants' rationale for receiving Taiwan scholarships was not typically linked to financial hardship. Table IV illustrates that approximately 87% of scholarship recipients labeled themselves as either middle or upper socio-economic status. Thirty percent of participants labeled their parents as professionals or self employed business entrepreneurs and reported that 31 % of parents had obtained graduate degrees.

The scholarships provide financial support from one to four years of study and range from NT 25,000 monthly for undergraduate students to NT 30,000 monthly for graduate students.

Thirty-two percent of participants reported that the scholarships were not sufficient for living expenses in Taiwan and 63% reported that the awards provided just enough in terms of financial support. These findings suggest tremendous discrepancy in living standards given that newly graduated college students in Taiwan earn from NT 26, 000 to 28, 000 monthly (CENS, 2008).

Table IV

Participants' SES, parents' background, and scholarship satisfaction (N=45)

Factor	*n*	%	*n*	%
Scholarship[a]	**Yes**	41	91	**No** 4 9
SES[b]				
Low	2	4	1	2
Middle	35	**78**	3	7
High	4	**9**	0	0

Parent /guardians' profession[c]

Unemployed 3 7 0 0

Employed 18 40 2 4

Self-employed 9 **20** 1 2

Professional 7 **16** 1 2

Parents' highest educational attainment[d]

High school 14 31 3 7

College 9 20 0 0

Masters 11 **24** 1 2

Ph. D. 3 **7** 0 0

Satisfaction towards scholarship (N=41)[e]

Not enough 13 **32**

Just enough 26 **63**

More than enough 2 5

Note: [a] Participants who are on scholarship grant given by the Taiwan government.
[b] Socio-economic status of the participants' family in home country.
[c] Occupation of the participant's parents / guardians (4 missing / no answer).
[d] Highest educational attainment of participant's parents / guardians (4 missing / no answer).
[e] Scholarship recipient participants' satisfaction rating towards monthly stipend provided by the scholarship.

In many nations incoming international students represent the premier source for university internationalization. As a newly emerging competitor host nation, Taiwan envisions its national system of higher education as an international center, where people from around the world come to learn from each other. As such the MOE government scholarships enhance the cultural composition of Taiwan universities' student bodies and contribute to institutional prestige (Mok & Tan 2004; Lo & Weng

2005). The immersion of international students among the NCCU local students represents, therefore, a pivotal objective of the university efforts for internationalization.

The concept of immersion suggests a deep level of engagement or involvement among the Taiwan students and participants. With this in mind Table IV summarizes 7 institutionally sanctioned NCCU organizations that provide opportunities for the immersion of NCCU international students with local students. The Table also displays the percentage of participant involvement with campus organizations. Strikingly, more than 70% of participants reported non-involvement with the NCCU organizations.

Table IV

International student participation in NCCU activities (N=45)

Factor	*n*	%	*n*	%
Clubs[a]	**Yes**	6	13	**No** 39 **87**
Sports[b]		14	31	31 **69**
Calligraphy class[c]		10	22	35 **78**
Cultural trips[d]		24	**53**	21 47
Language buddy program[e]		0	0	45 **100**
Language tutor / group[f]		13	29	32 **71**
Student ambassador[g]		4	9	41 **91**

Note. [a] NCCU organizations clubs: dance, mountain climbing, literary, book groups, etc.
[b] NCCU sports such as basketball, volleyball, swimming, and many others.

The lack of participant involvement is a complex and multifaceted issue which calls for close examination. Foremost it represents a responsibility of the NCCU administrators and decision-makers charged with standard-setting, capacity building

and the formulation of policies and strategies to meet the challenges posed by internationalization.

International Students' Satisfaction at the NCCU

Table VI highlights participants' reasons for choosing the NCCU as a host institution. Results indicate that the strength of the NCCU is anchored by the reputation of the Mandarin Studies program as a premiere language institution. The remaining factors including, recommendation of family and friends, recommendation by the embassy or cultural offices, environment conducive to learning, informative website, and availability of course programs are well documented in the literature as important factors of the student decision making process.

Table VI

Reasons for choosing NCCU (N=91)[a]

Factor	*n*	%
Recommended by friends / classmates	19	21
Mandarin Chinese study programs	18	20
Recommended by embassy / cultural and economic offices	16	18
Environment conducive to learning	12	13
Informative website	11	12
Course program availability / English programs	8	9
Others	7	5

Note. [a] Each participant selected a maximum of three factors.

Taken a step further, Table VII summarizes 7 factors and associated attributes that measured participants' satisfaction as NCCU international students. Values in

bold above 3.90, signify significant rankings. The high values associated with three of the four attributes of the factor, Mandarin Study Program, were not surprising, as few participants would seek to complete language study in a foreign country at an institution where education standards were low. That said, these attributes were not sufficient to ensure participant selection of the NCCU as a host institution. All of the significant values outlined in Table VII work together to profile the NCCU as a reputable host institution (Mazzarol & Soutar, 2002). In other words, the NCCU must have a reputation for quality support staff; its academic qualifications moreover must be recognized by prospective international students; and Taiwan as a host nation must maintain a high international profile.

Research by Lawley (1997) and Mazzarol and Soutar (2002) showed that interpersonal influences are important factors influencing international students' satisfaction in host institutions. The overall value of 3.96 associated with the attribute, Embassy and TECO personnel, for example, suggests that the factor, Pre-Departure Preparation represents important elements of pre-departure preparation for participants. In a similar vein the high value associated with positive interactions with the International Center under the factor, Initial Impressions of the NCCU reinforce the importance of trained support staff to assist international students with their needs from pre-departure to adjustment at the host institution. The overall satisfaction with the NCCU was rated at 4.07, indicating that participants were satisfied with their decision to study at this host institution.

Table VI

International students' satisfaction [a] in Taiwan at the NCCU (N=45)[b]

Factor	M	SD	Min.	Max.
Pre-departure preparation				
VISA application	3.76	0.883	1	5
Scholarship application	3.51	0.944	1	5
Embassy / TECO[c] personnel	**3.96**	1.043	1	5
Info on academic programs/ scholarship	3.47	0.968	2	5

Initial impressions of NCCU

NCCU website 3.49 0.787 2 5

Admission procedures 3.53 0.894 2 5

Course program selection 3.49 0.991 2 5

NCCU personnel **3.93** 0.809 2 5

Academic, & emotional support 3.64 0.957 1 5

Mandarin Study Program

Met academic needs 3.78 0.927 1 5

Provides a strong foundation **3.93** 0.720 3 5

Teachers' qualification **3.98** 0.812 1 5

Lessons and exercises **4.04** 0.796 2 5

Word of Mouth Referral **3.98** 0.892 1 5

NCCU facilities

Library, gym, pool, and others **3.93** 0.915 1 5

Living in dormitory 2.58 1.340 1 5

Future Expectations

Becoming an Alumni member 3.44 1.035 1 5

Retain contact with NCCU 3.60 0.939 1 5

Overall

Personal/academic challenge 3.69 0.848 1 5

Satisfaction with the NCCU

as study destination **4.07** 0.889 1 5

Note. [a]5 signifies very satisfied, while 1 signifies not very satisfied. [b] Cronbach's alpha = 0.89
[c]Taiwan Economic and Cultural Office.

NCCU International Students: Challenges and Rewards

Tables VIII and IX summarize factors identified by participants as the challenging and rewarding aspects of living and studying in Taiwan as NCCU international students. Table VIII displays 7 factors identified as the most challenging. The factor, memorizing Chinese characters was ranked as most challenging. This factor also represented a primary theme of focus group interviews:

> *When I first got to Taiwan it wasn't just getting used to a new culture, a new way to take out the trash, or figuring out how to navigate around Taipei. It went all the way to figuring out how to study this new language that had absolutely no similarities to mine except the Roman alphabet used in pinyin. In the beginning I studied how I did in the states—with groups of people, talking about the class, going over notes. This didn't work because I was failing. I soon realized that Chinese required 100 percent dedication. I had to memorize the language instead of relying on the context to help me interpret. In place of interpretation I had to know exactly what I was hearing and speaking in order to be successful and progress in the Mandarin Studies Program. Most of my friends had a similar wakeup call (FGT1).*

As newcomers, participants arrived to the NCCU with established systems for coping, studying, and socializing, yet often their strategies did not fit or conform to the standards of the Taiwan cultures and the NCCU academic community. Participants from Western nations, in particular, reported a process defined in the literature as renegotiating identities and developing habits of mind (Smith & Guarnizo, 1998) This process was likened to the challenge of memorizing up to a hundred new traditional Chinese characters weekly, adaptation to differences in education systems, disparity in the philosophy and purpose of education, learning styles, and contrasting education values.

The remaining factors: adjusting to the climate; cultural gap, adjusting to the food; homesickness and loneliness; pronunciation of Chinese; and being a non-English speaker are documented in the literature as important factors of

international students' adjustment and academic success in host institutions (Mazzarol & Soutar 2002). These factors work together as a holistic interpretation of the influences that challenge participants in their responsibilities as NCCU international students.

Table VIII

Challenging aspects of NCCU international students (N=100)[a]

Factor	*n*	%
Memorizing Chinese characters	26	26
Adjusting to the climate / weather	24	24
Cultural gap	14	14
Adjusting to the food	11	11
Homesickness / loneliness	11	11
Pronunciation of Chinese Mandarin language	6	6
Being a non-English speaker	4	4
Others	4	4

Note: [a] Each participant selected a maximum of three choices.

Participants reported that living and studying in Taiwan added a stimulating dimension to their academic programs and a valuable investment in future careers. Table IX displays 6 factors identified as rewarding aspects of international student status. The most significant factors, learning a new language firsthand and experiencing life outside of the home country are probably utilitarian; Cant (2004) notes that informed citizenship requires an understanding of other cultures and societies. Hence the ability to understand the Mandarin language and Taiwan culture was reported by participants as rewarding factors. Combined these factors reflected a

primary focus group theme defined by the sense of fulfillment and self-confidence born from the experience of living and studying at the NCCU:

> *Studying in Taiwan not only reinforced my intellectual capacity but through my Chinese studies I was given the opportunity to understand Chinese culture and the thought process of this area of the world. As a person who wants to be connected to the world and able to truly identify with someone from another culture. This was an invaluable learning and growing experience and one that I hold as a landmark of my development as a capable and independent person in a globalizing world (FGT2).*

Ranking of the remaining factors: making new friends (17%); experiencing a new culture (12%); becoming a global citizen (11%); and becoming more mature (9%)) reflect the value of international experiences in terms of the ability to better relate to others and to accept diversity and different lifestyles.

Table IX

Rewarding aspects of being an international students (N=121)[a]

Factor	*n*	%
Learning a new language firsthand	33	27
Experience life outside home country	27	22
Meet new friends	20	17
Experience a new culture	15	12
Opportunity of becoming a global citizen	13	11
Becoming more mature and independent	11	9
Others	2	2

Note. [a] Each participants were asked to select a maximum of three choices.

Studying at the NCCU offered participants first-hand experience to learn not only about cultural traditions, but to comprehend the place of East Asia in the world. Regardless of their academic areas, participants reported that they were better citizens because of an increased understanding of Taiwan. One participant addressed the idea of a global experience, “Studying at the NCCU is a chance to see another culture and broaden my perspectives of the world” (FGT2b). Key words repeatedly used to describe their experiences as international students included “global consciousness” and becoming “a global citizen” (FGT2c).

Traveling to, living, and studying in Taiwan at the NCCUs set a precedence for unavoidable social and cultural encounters that stimulated particpants’ intellect to adapt. Participants gained invaluable experiences unobtainable in classrooms and communities in their home nations:

> *I want to be part of an interconnected world; studying at the NCCU helped me realize that other parts of the world are real and that I am a part of them. Being here has helped me see progress in a positive manner and to operate within a system of connectedness. A lot of people in the world, in the Untied States, are losing consciousness, without this, without empathy and knowledge, we will never progress. I remember being reaffirmed of all this when I returned to my home for a visit. I realized you take the learning back home. I taught calligraphy to an art class in my old elementary school. Wow this really opened the eyes of not only the students but the teachers too. They loved it and asked me to return the following week (FGT3).*

In sum participants developed an appreciation of other cultures and the ability to effectively interact and participate in local, national, and international affairs.

IMPLICATIONS AND CONCLUSION

This article contributes to discourse examining the opportunities and challenges of international student enrollments in institutions of higher learning around the globe. In scope it details an empirical study exploring the dispositions of NCCU international students in terms of their academic and social spheres. The use of both quantitative and qualitative methods provided clarity and extended critical interpretations of the issues and dilemmas surrounding the international student experience. The combined sample size of the questionnaire and focus groups did not allow for broad

generalizations of findings; they did however, generate a useful premise to stimulate further research.

The NCCU is aligned with twenty-first century universities facing tremendous challenges to sustain intellectual and cultural viability in a rapidly changing world and to prepare students to participate competitively in the globalized marketplace while managing the expanding surge of electronic information and knowledge. The internationalization of NCCU represents a trendy response to these challenges. Efforts of the Taiwan government to develop national policies and set targets to attract substantial numbers of international students are impressive. Key implications suggest that the capability of the NCCU as a host institution to sustain and attract increasing numbers of incoming international students is linked to factors such as the unique opportunity to study traditional as opposed to simplified Chinese characters, the availability and accessibility of Taiwan government sponsored scholarships, and the high standard of the Mandarin Studies program.

Universities committed to internationalization are called to address the realities – both positive and negative – of operating as globally competitive institutions. This im implies that attracting the right kind of international students at the NCCU and determining standards for their contribution to campus life are more important goals than the total number of international students. The NCCU has been highly successful with international marketing campaigns and the recruit of international students on a global scale. Yet Davis (1995) notes that while a statistical measure provides an anchor for policy initiatives, it should not serve as an end point. Rather, a critical interpretation is paramount to the development of policies and practices supportive of the issues and dilemmas of expanding numbers of international students on the NCCU campus.

The term *diploma disease*, coined by Dore (1976) signifies this phenomenon. Dore argues that the sheer magnitude of students traveling internationally in the pursuit of advanced degrees, diplomas, or certifications has shifted the purpose and direction of tertiary education. Education, says Dore, is not a commercial endeavor defined by time or space but rather the harmonious development of the physical, mental, moral, and social dimensions of life necessary for engagement with opportunities to gain both knowledge and wisdom. This stance suggests that determining the form of higher education best suited for the NCCU academic community should remain a pressing issue side by side engagement with contemporary processes of internationalization.

REFERENCES

Agarwal, V., & Winkler, D. (1985). Foreign demand for United States higher education: A study of developing countries of the eastern hemisphere. *Economic Development and Cultural Change* 33, p. 623–644.

Altbach, P. (1991). Impact and adjustment: Foreign students in comparative perspective. *Higher Education*, 21 (3), p 305–323.

Altbach, P. (1997). The coming crisis in international education in the United States. *International Higher Education*, 8, p 1.

Altbach, P. (2003). Why the United States will not be a market for foreign higher education products: A case against GATS. Retrieved September 26, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News31/text003.htm

Axinn, W. G., Fricke, T. E., & Thornton, A. (1991). The micro demographic community-study approach: Improving survey data by integrating the ethnographic method. *Sociological Methods and Research, 20*(2), p 187-217.

Bohm, A., Meares, D., & Pearce, D. (2002). Global student mobility 2025: Forecast of the global demand for international higher education. Sydney: IDP Education.

Cardinale, K. (2000). Important components of effective student visa arrangements'. PhD thesis, University of Wisconsin-Madison.

Cens. (2008). Easy, low-paying jobs gain popularity in Taiwan. Retrieved August 15, 2008, from http://www.cens.com/cens/html/en/news/news_inner_23920.html

Chan, D., & Ng, P. (2008). Similar agendas, diverse strategies: The quest for a regional hub of higher education in Hong Kong and Singapore. Paper presented at the 2008 CESHK Annual Conference.

Cubillo, J., Sanchez, J., & Cervino, J. (2006). International students decision-making process. *International Journal of Educational Management,* v20, p 101-115.

Cummings, W. (1993). Global trends in international study. In Goodwin Craufurd (Ed.) *International Investment in Human Capital*, ed. New York: Institute of International Education.

Dore, R. (1976). *The diploma disease*. Berkeley CA: University of California Press.

Elkin, G., Devjee, F., & Farnsworth, J. (2005). Visualizing the `internationalization' of universities. *International Journal of Educational Management*, 19(4), 318-329.

Fouron, G., & Schiller, G. (2001). All in the family: Gender, transnational migration and the nation-state. *Identities*, 7, p 539-582.

Fry, G. (1984). The economic and political impact of study abroad. *Comparative Education Review*, 28 (2), p. 203–220.

Immelman, A., & Schneider, P. (1998). Assessing student learning in study abroad programs: A conceptual framework and methodology for assessing student learning in study abroad programs. Journal of Studies on International Education, 2 (2).

Inglis, A, Rolls, C, & Kristy, S. (1998). The impact of participation in a study abroad programme on students' conceptual understanding of community health nursing in a developing country. *Journal of Advanced Nursing*, 28 (4), p 911-917.

Johnson, B., & Christensen, L. (2008). *Educational research - Quantitative, qualitative, and mixed approaches* (3rd ed.). Thousand Oaks, California: Sage Publications.

Kemp, S. (1995). *The Global Market for Foreign Students*. Adelaide: University of Adelaide.

Kirp, D. (2003). Shakespeare, Einstein, and the bottom line: The marketing of higher education. Cambridge, MA: Harvard University Press.

Knight, J. (2002) Trade creep: Implications of GATS for higher education policy. *International Higher Education*, 28 (2).

Kreuger, R. (1988). Focus groups: A practical guide for applied research. London: Sage.

Ko, S. (2008). International students in Taiwan at an all-time high. Retrieved June 11, 2008, from http://www.taipeitimes.com/News/taiwan/archives/2008/02/12/2003400913

Kwiek, M. (2005). The university and the state in a global age: Renegotiating the traditional social contract? *European Educational Research Journal, 4*(4), 324-342.

Larsen, K., Momii, K., & Vincent-Lancrin, S. (2004). *Cross-border higher education: An analysis of current trends, policy strategies and future scenarios*. Paris: Centre for Educational Research and Innovation.

Lawley, M. (1997). *Thai and Malaysian students' perceptions of overseas study destinations: An exploratory study.* University of Southern Queensland*:* Unpublished Management Papers.

Lo, Y., & Weng, F. (2005). Taiwan's responses to globalization: Internationalization of higher education. In K. Mok & R. James (Eds). *Globalization and higher education in East Asia* (p 137-156). Singapore: Marshall Cavendish Academics.

Mazzarol, T. (1998). Critical success factors for international education marketing. *International Journal of Educational Management, 12*(4), 163-175.

Mazzarol, T., & Soutar, G. (2002). Push-pull factors influencing international destination choice. *The International Journal of Educational Management, 16*(2), 82-90.

McCormack, E. (2007). Worldwide competition for international students heats up. Retrieved September 27, 2008, from http://chronicle.com/temp/reprint.php?id=f36ykhngj7h7gc2cwr8cb8vfm6y1tzm7

McMahon, M. (1992). Higher education in a world market: An historical look at the global context of international study. *Higher Education,* 24, 0 465-482.

MOE. (2007). Introduction to the scholarship program of Taiwan. Retrieved August 15, 2008, from http://english.moe.gov.tw/ct.asp?xItem=6798&CtNode=10632&mp=1

Mok, K., & Tan, J. (2004). *Globalization and marketization in education: A comparative analysis of Hong Kong and Singapore.* UK: Edward Elgar.

Nunnally, J. C., & Bemstein, L. H. (1994). *Psychometric theory*. New York: McGraw-Hill.

OECD. (2006). *Education at a glance: OECD indicators 2006.* Paris: Organization for Economic Co-operation and Development.

Olsen, A. (2003). E-Learning in Asia: Supply and demand. Retrieved September 25, 2008, from http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News30/text004.htm

Pinar, W., Reynolds, W., Slattery, P., & Taubman, P. (Eds.) (1995). *Understanding curriculum*. New York: Peter Lang.

Project Atlas, (2004). Atlas of student mobility. Retrieved September 20, 2008, from http://www.atlas.iienetwork.org/

Scott, Peter (Ed.). (1998). *The globalization of higher education*. Buckingham, UK: Open University Press.

Sieber, S. D. (1973). The integration of fieldwork and survey methods. *American Journal of Sociology, 78*(6), p 1335-1359.

Sirowy, L. & Inkeles, A. (1985). University-level student exchanges: The U.S. role in global perspective. In Elinor Barber *(Ed.), Foreign Student Flows: Their Significance for American Higher Education.* New York: Institute of International Education.

Smart, D., & Ang, G. (1993). The origins and evolution of the commonwealth full-fee paying overseas student policy 1975-1992. In W. Peachment & J. Williamson (Eds.), *Case studies in public policy* (pp. 111-128). Perth: Public Sector Research Unit.

Smith, G. H. (1954). *Motivation research in advertising and marketing*. New York: McGrawHill.

Smith, M., & Guarnizo, L. (1998). *Transnationalism from below.* News Brunswick: Transaction Publishing.

Stenhouse, L. (1988). Case study methods in J.P. Keeves (Ed.). *Educational Research, Methodology, and Measurement: An International Handbook.* Sydney: Pergamon Press.

Stewart, D., & Shamdasani, P. (1990). *Focus groups - Theory and practice*. Newbury Park, California: Sage Publications.

Teichler, U., & Jahr, V. (2001). Mobility during the course of study and after. *European Journal of Education* 36(4): 443-458.

UNESCO, (2006). Global education digest: Comparing education statistics across the world. Retrieved on September 20, 2008 from http://www.uis.unesco.org/TEMPLATE/pdf/ged/2006/GED2006.pdf

Vincent-Lancrin, S. (2004). Cross-border education: An overview. In OECD (Ed.), *Internationalization and Trade in Higher Education: Opportunities and Challenges*, p. 17-38, Paris: OECD.

van der Wende, M. (2001). Internationalization policies: About new trends and contrasting paradigms. *Higher Education Policy, 14*(3), p 249-259.

Williams, P. (1981) The Overseas Student Question: Studies For a Policy. London: Heinemann Educational Books Ltd.

Wong, E. (2008). China and Taiwan sign pacts on transportation and food. *The New York Times International*, A12

World Bank Assessment, (2007). Measuring knowledge in the world's economies. Retrieved March 3, 2008 from http://siteresources.worldbank.org/INTUNIKAM/Resources/KAM_v4.pdf

Wu, s. (2008). Statement of internationalization. Retrieved, February 8, 2008 from http://www.nccu.edu.tw/english/

Yang, P. (2007). *Reflections of Taiwan.* Taiwan: Viscom Design Associates.

Zachrisson, C. (2001). New study abroad destinations: Trends and emerging opportunities. In M. Tillman (Ed.), *Study Abroad: A 21st century perspective,*

volume II, the changing landscape (pp. 28-30). Stamford, CT: American Institute for Foreign Language.

無研發成果推廣資料

97 年度專題研究計畫研究成果彙整表

計畫主持人：周祝瑛	計畫編號：97-2420-H-004-026-
計畫名稱：變遷中的台灣教育：當全球化遇到本土化	

成果項目			量化			單位	備註(質化說明：如數個計畫共同成果、成果列為該期刊之封面故事...等)
			實際已達成數（被接受或已發表）	預期總達成數(含實際已達成數)	本計畫實際貢獻百分比		
國內	論文著作	期刊論文	7	7	90%	篇	(2009)。台灣地區師資培育政策之檢討與展望。中等教育季刊第(60)卷第3期 (2009)。邁向十二年國民基本教育--由繁化簡的高中、職免試入學方案。教育資料集刊 42 期。 (2009)。大學建立人文社會指標的必要性。科學月刊。 (2009)。公民教育中的性別議題。研習資訊，第26 卷 1 期。 (2008)。從政大駐校藝術家活動看國內通識教育。通識在線，VOL.18。 (2008)。大學通識與評鑑之外的思考。通識在線，VOL.17。 (2008)。台灣下一代教育的未來在哪裡？--從教育的「貧」與「弱」到「富」而「強」。教育研究月刊。168 期。
		研究報告/技術報告	4	4	90%		(2009)。台灣地區國際學生調查研究：以推拉理論與社會資本論為例。(NSC 98-2410-H-004-082-) (2008)。建構人文社會科學學術評鑑指標之研究(政大校務發展基金會) (2008)。政大教師教學評鑑中「教學意見調查表」之研究。 (2008)。Nccu survey of international students。

		研討會論文	4	4	90%		(2009)。教育部公費留學與國家建設研討會。國立政治大學 2009 年 10 月 24 日。 (2009).Going to School in Taiwan.發表于 第 2 屆台灣暨瑞典林雪平大學雙邊學術交流合作會議。台北,政治大學,2009 年 03 月 31 日-04 月 02 日. (2009)。大學評鑑與大學自主。發表于 第 21 屆全國通識教育教師研習營-大學評鑑與通識教育品質。高雄縣，義守大學，2009 年 01 月 17 日。 (2008)。NCCU Survey of International Students。 發表于 2008 國際化政策研究專題講座。台北，政治大學，2008 年 12 月 26 日。
		專書	2	2	100%		(2009)。比較教育與國際教改。臺北：三民。 (2008)。台灣教育怎麼辦？。臺北：心理。
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（本國籍）	碩士生	10	10	100%	人次	
		博士生	2	2	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

國外	論文著作	期刊論文	2	3	90%	篇	Chou, C. P., Roberts, A., and Ching, G. (in progress). Social capital and the cross-border mobility of International Students in Taiwan . The Asia Pacific Education Researcher. (under-review) Roberts, A., Chou, C. P., and Ching, G. (2009). Contemporary Trends in East Asian Higher Education:University. Higher Education: The International Journal of Higher Education and Educational Planning. (2008). Taiwanese Higher Education on the Crossroads: Its implication to China. Journal Of Asian Public Policy,Vol. 1, No. 2, 148- 163.
		研究報告/技術報告	2	2	80%		(2008) 。 Building Global Universities: University Internationalization in Japan。 (2008) 。 Chinese education and society 。(SSCI)期刊台灣高教大眾化 專刊編輯。

		研討會論文	2	2	90%		(2009.May).Striving to succeed at a lower cost: Why studying in Taiwan? (Poster presentation) NAFSA:Association of International Educators 61st Annual Conference in Los Angeles, CA., USA. (2009).Academic Exchange between Taiwan and China: A Preliminary Results of National Taiwan University. 2009 年 04 月 30 日
		專書	1	1	100%	章/本	Chou, C.P. ， David P.Baker(Ed)，(2008)。The impact of neo-liberalism on Taiwanese higher education. 。"""International perspectives on education and society""", Vol. 9, 297-311
	專利	申請中件數	0	0	100%	件	
		已獲得件數	0	0	100%		
	技術移轉	件數	0	0	100%	件	
		權利金	0	0	100%	千元	
	參與計畫人力（外國籍）	碩士生	0	0	100%	人次	
		博士生	0	0	100%		
		博士後研究員	0	0	100%		
		專任助理	0	0	100%		

其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)	2010 加拿大臺灣研究獎助金大學教授教學計畫 得主（Canadian Study Faculty Enrichment Program） 2010 國立政治大學九十八學年度 研究優良獎 2008-10 Chinese Education and Society（SSCI 期刊）「臺灣高等教育大眾化」專刊　客座主編 2008-09 日本住友銀行亞洲研究獎助得主

	成果項目	量化	名稱或內容性質簡述
科教處計畫加填項目	測驗工具(含質性與量性)	0	
	課程/模組	0	
	電腦及網路系統或工具	0	
	教材	0	
	舉辦之活動/競賽	0	
	研討會/工作坊	0	
	電子報、網站	0	
	計畫成果推廣之參與（閱聽）人數	0	

國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估 ■達成目標 □未達成目標（請說明，以 100 字為限） □實驗失敗 □因故實驗中斷 □其他原因 說明：
2. 研究成果在學術期刊發表或申請專利等情形： 論文：□已發表 ■未發表之文稿 □撰寫中 □無 專利：□已獲得 □申請中 ■無 技轉：□已技轉 □洽談中 ■無 其他：(以 100 字為限)
3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）(以 500 字為限)