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## **How Taiwan Education Pursues Equity in Excellence**

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### **Abstract**

The inevitable growth of education provision throughout the world has become a major topic of discussion over the last two decades. This global trend towards educational quality and equity has affected many education institutes across all levels in Asia. Taiwan is a good example of one that launched a series of education reform policies to expand educational capacity with an attempt not only to develop students' diverse potentials and alleviate examination pressure, but also to improve its global competitiveness in education equity and quality after the mid-1990s. Consequently, the expansion of middle and higher education has enabled students from disadvantaged backgrounds to access to schools which were previously restricted to those with elite backgrounds. It also had some unexpected results regarding equity issues. This chapter attempts to examine how Taiwan education has strived to pursue educational equity in excellence and what challenges it has encountered. The introduction of a new policy entitled "the Twelve-year Basic Education Program (TBEP)", coupled with higher education expansion since the mid-1990s has demonstrated how equity issues continue to challenge Taiwan's education endeavors.

Key words: Twelve-year Basic Education Program (TBEP), Educational Equity, Education Reform, Taiwan.

### **Introduction**

Like in many high performing counterparts in East Asia, the general public in Taiwan has many concerns related to education issues, such as excessive pressure associated with high school and university entrance exams. Students suffer from intense academic competition and the financial burden for receiving supplemental tutoring after school (Chou & Yuan, 2011). Increasing instances of gang members invading campuses, bullying, drug abuse and the violation of rules are now becoming more evidents and rampant nationwide (MOE 2011). On the other hand, Taiwan's students at the primary and secondary levels continued to win prizes in International Mathematical and Scientific Olympiad coupled with ranking high in the 'Programme for International Student Assessment' (PISA), the International Mathematics and Science

Study (TIMSS) and so forth. But the majority of students do not show much curiosity and interest in exploring science or engaging in outside reading (Chou 2008a).

Taiwan's society is still under the influence of the Chinese examination tradition which requires a great deal of hard work via drills and practices (Chou 2014). Taiwan's education system comprises of six years of elementary school, three years each of junior high and senior high school, and four years at the tertiary level. Compulsory education has covered the first nine years since 1968 and was expanded to 12 basic years in fall, 2014. Gaining admission to higher secondary schools has long been a trying period in students' lives because they need to sit qualifying examinations for admission into senior high schools or vocational high schools. This process is repeated again before entrance into universities or colleges and preparation for entrance exams, the main source for pressure in schools, has aroused much criticism about the lack of equal educational opportunities for students from disadvantaged backgrounds.

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In addition, Taiwan has also faced social change that challenges the pursuit of educational equity in excellence (MOE 2010b). With this rapid transition to a global society, the Internet has become an important way to reinforce e-learning and promote social agendas among students. The arrival of the virtual world and cloud computing has not only provided greater access to information via the Internet but has also resulted in various problems, such as the online subculture, that has appeared among teenagers and that deviates from the mainstream. Moreover, the issue of Internet addiction, which is a serious concern in Taiwan, has divided parents, teachers and students (MOE, 2011).

Moreover, Taiwan's demographic composition, in recent years, has transformed into one with a low birthrate and an aging population. The birthrate has dropped, from 410,000 newborn babies in 1981, 270,000 in 1998, 191,000 in 2009, to 210,830 in 2014 (<http://www.ris.gov.tw/>). As a result, many schools are confronted with closure and teacher lay-offs. Some universities, especially the private ones, are also in the process of institutional closures or mergers (Hu, 2010). In addition, children of foreign nationality and those for whom one parent is Chinese account for nearly 10 per cent of the total student population and three per cent at the lower secondary level in Taiwan (MOE 2010a; MOE 2011). On the other hand, the population ratio of the elderly will reach nearly 20 per cent in 2025 (Central News Agency 2015-10-31). Under such social transition and challenges, the restructuring of Taiwan's education system is inevitable.

Above all, public alarm has been raised by an increasing polarization of student learning outcomes and behavioral issues thanks to uneven distribution of educational resources and teacher retention rates. (Lee, 2000; Cheng, 2011). According to the

renowned Japanese scholar, Ōmae Ken'ichi (1990), the growth of vulnerable social groups whose opportunities are influenced by economic factors or family status is an important reason for the M-shape of educational distribution in a society which the rich get richer, and the poor become poorer. Children who have grown up in such environments are usually subjected to poverty and crime thanks to the lack of cultural capital and appropriate role models (Katz, et.al, 2007) . As more and more families disintegrate and traditional childrearing is transformed into atypical modes, an integrated task force is required to provide support to these at-risk children (Kuan & Yang, n.d.).

Regarding environmental sustainability issues, according to 'World Bank Natural Disaster Hotspots—A Global Risk Analysis', Taiwan is one of the areas of the world where natural disasters occur most frequently (Arnold, et al, 2005). Over the last ten years, Taiwan has been hit by a series of natural disasters which resulted in unprecedented consequences to educational facilities, especially in the remote regions (MOE 2009). Thus, more educational awareness is needed to enhance citizens' awareness of global climate change and the coexistence of economic development and environmental sustainability.

In an International Civic and Citizenship Education Study (ICCS) of civic and citizenship education in 37 countries around the world in 2009, results for Taiwan showed that its 14 to 15 year-old teenagers scored much lower than the average in trust in national government, political parties, media, schools, and people in general (Schulz et al, 2010). However, at the same time that high-level cross-strait relations and economic cooperation have developed to an unprecedented degree in the past few years, cultural and educational exchanges have also increased. Education plays a major role in shaping national identity in Taiwan, and with the ongoing cross-strait cultural and education exchanges, this has become more urgent than before (Chou & Ching, 2015).

In sum, these social changes have created an urgent demand for immediate educational restructuring and transformation so Taiwan can fulfill its mission of equity in excellence.

### **Education Reform for Equity in Excellence**

Taiwan education development over the last three decades represents a transition from an authoritarian governance to a democratic one, and from a highly centralized administration to government-regulated and market-driven management (Chou &

Ching 2012). With respect to equal educational opportunity at all levels, Taiwan education moved from a highly competitive elite-access model to a more universal orientation, and from a single-facet of academic excellence to more recognition and acceptance of diverse talents and social background (Chou 2015; MOE, 2006).

The core of the early 1990s reform initiatives, interwoven with the Master Plan for Education Reform Report from Education Reform Committee, highlighted the reform principals for Taiwan's future education (Chou & Ching, 2012):

- 1) deregulating governmental control over education,
- 2) exempting education sectors from unrelated regulation and constraints,
- 3) protecting students basic learning rights,
- 4) respecting parental right of choice on education patterns and paths for their children,
- 5) guaranteeing teachers' professional autonomy and quality.

Above all, the proposal for broadening and diversifying admission channels to higher school and university was expected to have the greatest impact on facilitating equal educational opportunity. Along with the preceding master reform plan and other schemes, the Ministry of Education (MOE) and the related Educational Authorities in Taiwan initiated a series of legislation reforms in education. Most importantly, the promulgation of the Education Basic Law in 1999 paved way for promoting student rights and educational equity. In addition, underprivileged students, including those who live in remote areas, have been given special support to ensure their equal educational opportunities (Wang, et.al., 2011). In 2013, the Aboriginal Education Law was passed to guarantee equal educational opportunity for aboriginal students (MOE 2013b). Policies have been implemented to improve the advancement of these minority groups, such as setting a special quota for admitting aboriginal students of special talent to higher education; and financial aid/scholarships for overseas study. Despite this, aboriginal students tend to attend less privileged private HEIs with practical training programs, where female aboriginal students outnumber their male peers in five-year nursing and other programs (Chou 2015).

In addition, reports on gifted education and gender equity education were also released to further facilitate Taiwan's education equity and excellence agenda in the 21st century. For example, the Indigenous Affairs Commission was established in 1996 to strengthen educational excellence and quality for minority students. The crucial "Education Act for Indigenous Peoples" was passed as a milestone in 2004 to safeguard indigenous people's education budget and welfare.

In order to promote gender-equity awareness in all aspects of society, government

started to enforce the required gender-equity-related sub-unit setup in every governmental agency and institution. Crucially, the establishment of the ‘Commission on Women’s Rights Promotion’ in the cabinet, and the ‘Gender Equality Education Committee’ within MOE was aimed to promote a gender-free curriculum and instruction at all levels of schools to ensure a non-discriminative campus and learning environment (Lee, 2012).

The call for an overall review and upgrade for educational facilities and personnel for students with disabilities was put into practice at the legal and operation level. Based on four core values, the MOE prospective policies have been incorporated into the education system and blueprinted as the major action plan for Taiwan in the next decade (MOE 2011). The four core values include: delicacy, innovation, justice and sustainability, with a special emphasis on “Respect and Care for Diverse and Vulnerable Groups” as the population in Taiwan now is composed of more diverse groups than before, including the aboriginal culture, the local Taiwanese culture, traditional Chinese culture, and the culture of new immigrants. Thus, more effort is required on the part of the education system to integrate people of different cultures and backgrounds into a new Taiwanese identity. Above all, the implementation of twelve-year basic education in 2014—a new milestone—has become the most important education policy since nine-year compulsory education in 1968. Education for the “cultivation of the whole person, the value of life, respect for diversity, and a focus on international and lifelong learning” is considered the core policy that has been promoted in the last few years (Chou & Ching 2012).

### Equity in Elementary and Secondary Schools

Taiwan’s 9-year Compulsory Education Reform was launched in 1968 which extended compulsory, state-funded schooling from 6 to 9 years, and abolished entrance exams for junior high schools. This reform policy has lifted a number of social and economic barriers to secondary education, and especially had a significant impact on women’s enrolment in ‘higher-still levels of education’, as well as for those students with low social economic status (SES) background (Cherry, 2016; Kosack, 2012).

Despite this, when reviewing the 9-year compulsory education reform four decades later, it is obvious that the goal of education equity and excellence has yet to fulfilled. For example, the learning gap between rural and urban students, the uneven distribution of educational resources, and the continuing excessive pressure to pass entrance exams for secondary schools, all still exist nationwide (Cheng, 2011; Wang, et.al., 2011). As Taiwan faces a declining birth rate and aging population, many schools

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are enduring institutional closure and mergers in recent years. On the other hand, nearly half of senior high and vocational schools are private ones which charge four-time as much as tuition of their public counterparts. Due to their typically-lower entrance exam scores, the majority of students who enrolled in private schools are from disadvantaged backgrounds (Chang & Yi, 2004). To overcome these educational inequality issues, MOE introduced a reform plan in early 2000s; then started to subsidize tuition for disadvantaged students enrolled in private senior high and vocational schools; and introduced programs to improve the quality of senior high and vocational schools from 2007 onward. The current Twelve-year Basic Education Program (TBEP) was finally implemented in 2014 via prior revision of High School Law and other curriculum reform plans including teacher training. One of the TBEP objectives is to promote equal educational opportunities, realizing social justice, and to reduce learning gap and educational resource discrepancies (MOE, 2016).

#### Equity in Higher Education Expansion

Higher education in Taiwan has expanded dramatically over the past two decades, and admission to university has expanded beyond the traditional elites with the hope that mass higher education will open up new opportunities to traditionally disadvantaged groups. In the period from 1986 to 2010, 120 new HEIs were established or formed by the restructuring of colleges which brought the total to 163. The number of public universities and colleges grew from 15 to 51 in the same period (MOE 2010a). This transition from higher education as an elite preserve to a mass education system replicates the global trend of university expansion (Tang 2003; Yang 2001; Trow 2006).

Several studies have shown that the massification of higher education has produced mixed results in equity of opportunity and education quality (Shin and Teichler, 2014; Shin 2013; Yang 2001). Students from all socio-economic backgrounds have greater opportunities to pursue higher education to the extent of their personal ability and academic performance but there are still unresolved questions regarding equal access to education resources and funding (Chen and Chen 2009). In most countries, the expansion of higher education has been driven by an increase in non-elite HEIs, especially in the private sector (Kim and Lee (2006). This has led to a growing stratification in higher education and a trend towards 'class reproduction' has emerged. As Astin and Oseguera (2004) indicate, SES, gender and ethnicity still play a critical role in deciding education opportunities despite the expansion of higher education. The difference in resource levels between benchmark/elite universities and other HEIs continues to grow despite the dramatically-widened access that the general public

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enjoy (Cheng and Jacob 2012; Astin and Oseguera 2004; Clancy and Goastellec 2007). In this respect, Taiwan is no exception to this world trend (Wu 2008). The author has previously looked at issues arising from Taiwan's massification of higher education and found that inequality of opportunity in accessing public resources has been reinforced with respect to social class, gender and ethnic minorities (Chou 2015). Whereas before, resources were allocated equally across the board, now they are allocated according to market mechanisms of competition, with the criteria being laid down in formalized assessments. Over the last two decades, the overall budget allocated to public HEIs has declined and this deficit accounts for one third of the current funding shortfall (Song 2006). Funding criteria in recent years have been geared around equitable redistribution between public and private HEIs and in order to enhance social mobility and remove the burden on the disadvantaged groups who overwhelmingly attend private HEIs, a 'performance-based' evaluation system was introduced to encourage more competition and accountability particularly in fundraising and tuition fee policies (MOE 2012). This drop in public funding has led to a corresponding increase in private investment, which in turn has led to the growth of a new form of inequality: those who can most easily bear the costs receive a greater education opportunities while those who are at a socio-economic disadvantage receive ever fewer opportunities for social mobility (Chou 2007). Currently, students at private institutions represent around 70% of the total number in Taiwan. Most are from underprivileged family backgrounds and receive less government funding per head. In consequence, growing budget discrepancies have developed between public/private and top/regular HEIs in the last decade (Chou 2015; Wang, et.al., 2011).

Raftery and Hout (1993) argued in their exposition of "Maximum Maintained Inequality" (MMI) that unless educational capacity is expanded to the point it meets the demand of the elite groups, inequalities will continue to exist. When a system cannot accommodate all students who would benefit socially-elite groups will benefit disproportionately from education expansion. Ayalon and Shavit (2004), in contrast argue that an 'Effectively Maintained Inequality (EMI)' will continue to exist due to SES regardless of fluctuations in the enrolment rate. Certainly, student SES continues to play a critical role in deciding access opportunities to top/benchmark universities despite the education expansion. A national survey conducted by Cheng and Jacob (2012) indicates an increased stratification by background of higher education opportunities too place after the reforms of the 1990s. Students with the best chance of gaining entry to a top/benchmark university are typically those whose: fathers have a graduate or college degree; mothers have a graduate, college or junior college degree;

gender is male; family incomes are above NT\$1.15 million; descended from post-war immigrants from the Mainland; residency is in the northern or middle regions of Taiwan (Cheng and Jacob 2012). Similar research on the student body of Taiwan's premier institution, National Taiwan University, indicates that freshmen mainly come from backgrounds with rich cultural capital, higher SES and wealthy school zones (Luoh, 2002). Students from disadvantaged backgrounds, on the other hand, tend to be concentrated in the less highly-regarded private institutions (Fu, 2000; Hung and Cheng, 2008). Cheng and Jacob's work confirms that Taiwan conforms to the MMI and Emi frameworks mentioned about and although greater numbers of students have access to higher education, inequality in Taiwanese higher education has not decreased and it tends to be in the less selective vocational track HEIs and not the leading academic institutions.

Taiwan's 1968 Education Reform resulted in far greater numbers of women participating in higher education than ever before. Chen (2009) states that as HEIs expanded, so did women's opportunity for enrolment but only in traditionally female-dominated fields like education and nursing, rather than science and technology, a trend which has not significantly changed over time (Chen 2012; MOE 2013a). A further study (Huang and Luh, 2008) indicates that while women comprise more than half of all undergraduate students, males dominate at graduate level with far more men than women studying for doctoral degrees (MOE, 2014b). Despite women performing better academically than their male counterparts, female university graduates experience more difficulties in finding a job and are not treated equally to men with comparable qualifications in Taiwan's job market.

One particular challenge facing Taiwan's expanded higher education system is the status of ethnic minorities, such as students from aboriginal tribes and children of foreign spouses. Despite comprising 2.26% of the total population in Taiwan (MOE, 2013b), 18.49% of aboriginal students received education at college level or above compared with 38.7% for the general population. 85.88% of aboriginals over the age of 15 had received no education above high school or vocational high school level as of 2012 (MOE 2013c). While 85% of the general population attend HEIs in one form or another, only half of the aboriginal population does (MOE 2013c). University enrolment rates for these students increased from 28.7% to 76.3% between 1994 and 2008, a four-fold increase. Despite this absolute gain, aboriginal enrolment rates still lag some 13% behind those of the general population. Access rates have increased by 40% but are still 40% behind their mainstream contemporaries. At the graduate level, there were only 18 aboriginal students in total in 1998, representing 0.02% of all students,

which rose to only 0.49% at the Masters level and 0.2% at the doctoral (MOE, 2013a).

Another disadvantaged group is that of foreign spouses. Mainly women who emigrated from China and Southeast Asia, were approximately 430,000 in 2009 (Chou and Ching 2012). They often encounter difficulties in assimilating into Taiwanese society, especially in understanding the culture, learning local languages, and finding employment. Their children (commonly known as the “son of the new Taiwanese”) often experience conflicted identities and have many unique problems in education (Chang and Lin 2012). Most attend elementary or secondary schools and made up 11.8 % and 4.09 % respectively of the total student population as of 2012 (MOE 2013b). Although some achieve admission to higher education, many HEIs raise barriers to these students due to a lack of multicultural policies and provision.

Despite efforts to protect the educational rights of these disadvantaged groups, children of indigenous peoples and foreign spouses continue to experience social discrimination as well as challenges arising from their more complicated family structures and low SES (Chang and Lin 2012). The lower enrolment rates of aboriginal children compared to the general population suggests that they may have trouble adapting to mainstream education, due to their social status or economic situation (MOE 2010b). Discrepancies in educational opportunity and quality therefore persist despite the expansion of higher education.

## **Discussion**

Worldwide, education reform policy has continued to be challenged by the dilemma between equity and excellence. (Gillian, et.al. 2008). The Twelve-Year Basic Education Program in Taiwan provoked similar debates as a result of its proposal to abolish ‘super-star’ schools across the country Wang (2012). These schools, renowned as magnets for talented students, were to be opened to all students resident in their local neighborhoods regardless of achievement or interests. Although this proposal was aimed at giving equal access to all, the public thirst for elite-status education has meant that the proposal has stalled and remains an unachieved ideal rather than an achievement (Yang, 2005). Arguments against the proposal centered on the right of gifted or academically outstanding students to receive an education worthy of their potential and that this is necessary for the development of an equitable society free from the detrimental effects of ‘lowest common denominator.’ The balance that should be struck between equity and excellence and how to achieve it are points worthy of further research and discussion during the formation of Taiwan’s future education policies. (Lin, at.al, 2005; Wang, 2012). .

Similar controversies arise in Taiwan's higher education system. In an effort to reduce the discrepancies between applicants' interests and their college programs; and reduce inequality, the 'multiple admission channel' system was introduced in 2001. The intention was to ensure that students could fulfil their potential by allowing them to choose programs according to their own motivations, while simultaneously assuring the quality of the education they received. It has, however, been criticized for intensifying the stratification of Taiwanese society and perpetuating social classes (Jao and McKeever 2006; Fu 2000). Despite the intended objectivity of university entrance by test scores, the system has handed considerable advantages to the children of graduates who can better advise on application packages and interview techniques (Chou and Ching, 2012; Chang et al., 2005, Chen et al., 2004).

The controversy over an effective and publicly-accepted balance between equity and excellence shows no sign of abating and will no doubt color Taiwan's future reform efforts as it attempts to create a fair yet globally competitive education system which is also recognized as globally-excellent.

### **Concluding Remarks**

Taiwan has responded to the pressures of globalization and the search for world-class education with political and social restructuring over the last 20 years, yet efforts to expand access to education while preserving social equity and educational excellence have created new dilemmas. In particular, the expansion of middle and higher education both opened new opportunities for students from disadvantaged backgrounds but also created new inequities regarding education quality and the job market. The new 'Twelve Year Basic Education Program' (TBEP) is intended to solve many of the equity issues around access to education while at the same time relieving the stress of intense entrance exam preparation and allowing students to pursue their own interests. At university-level, the massive expansion of education from an elite pursuit to a generally-available one was a response to global and local demand for talent, yet ran into issues surrounding how to maintain quality at the same time as enshrining equal educational opportunities. The resulting increase in the gap between public funding and university costs, along with the dangers of social stratification, gender inequality and ethnic discrimination continue to vex policy-makers and HEIs in the post-massification era.

Taiwan's higher education enrolment rate is one of the highest in Asia, yet the distribution of public educational resources continues to be concentrated on institutions favoring students from a limited range of social backgrounds. It has

become evident that higher education acts to reproduce social class amongst the elite groups and grants them better education quality and job prospects at much lower cost, while the disadvantaged groups continue to experience poor relative gains despite high absolute ones. As a result of the widening gap between haves and have-nots, equal opportunity and social mobility in Taiwan will suffer, with long-term negative consequences for Taiwanese society.

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