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Globalisation, the Singapore developmental state and education policy: a thesis revisited

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In this article I revisit and extend arguments made in 1996 and 1997 about the relationship between globalisation, the state and education policy. I was particularly concerned then to see how a small but strong state, Singapore, was responding in the education arena to globalisation. I also wished to draw attention to the literature on the high rates of economic growth achieved by the East Asian ‘tigers’ in which education, training and capital–labour accommodation played a large part; in all these countries the state was strong, being in the market as well as managing it. But with globalisation and neo-liberal economic policies growing in strength, the havoc caused by the 1997 Asian economic crisis and the new geopolitical and security environment following the September 11, 2001 attacks on the US, there is a need to reconsider some of the arguments and to review the policy responses, especially in education. Is there evidence of the state weakening? Are more pro-market policies changing governance and funding of education thereby altering the nature and purposes of schooling? I begin with a consideration of the broader phenomena of globalisation and then review the claims that call into question the continued relevance of the East Asian developmental state model and its education and training infrastructures.

Globalisation, economic change and education

It will be readily agreed that no contemporary macro analysis of education policy is possible without considering both the processes and impacts of globalisation. Yet, while there is a vast literature on globalisation, there are also many ways of defining globalisation, identifying when it began, differences with an earlier phase of internationalism, what elements within globalisation are significant and for which sectors of social activity and where globalisation is likely to lead (Fukuyama, 1992; Ohmae, 1996; Giddens, 1999; Mok & Tan, 2004). For a trenchant critique of economic globalisation see Stiglitz (2002). It is also the case that globalisation processes are complex and often contradictory, and we need to avoid an overly deterministic view

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of globalisation's impact on education policy. Globalisation is real, not a virtual phenomenon and its effects are enhanced, even transformed, by the revolution in communications and the continuing press of technology-driven innovation. **While some see globalisation as a process for removing restrictions, thus leading to increased trade and economic growth and economic benefits, a liberal and liberating process, others point to the social costs of globalisation citing growing inequalities in some countries, environmental degradation, commodification of culture and education, rise in unemployment, greater uncertainty and risk and reduction of sovereign power in states as unacceptable consequences** (Hsieh & Tseng, 2002; Stiglitz, 2002). In essence, economic globalisation may be defined as the process of accelerating economic integration which privileges market capitalism and which places considerable economic power in the hands of transnational corporations; there are, however, political, cultural and technological dimensions that need to be taken into account. Coupled with changes wrought by the communication and technological revolution, some of which are driven by economic considerations, many fundamental changes are taking place in institutions, relationships and practices.

Even as the older international order and its constituent elements, states, persist—the UN system may be weak presently but many states and elites wish for a strong role for the UN in international affairs—we need to consider how state integrity and activity are impacted upon by globalisation. Early predictions for the demise of the nation state (Ohmae, 1996) may now be seen to be farfetched but without a doubt states have to act differently in the face of economic globalisation, and in some cases, their power to act is influenced by, and some might say, circumscribed by globalisation. Pierre, 2000 argues that globalisation processes do create a need for modern states to alter their governance modes and to institute reforms in the public sector to better manage uncertainty and risk. This is in line with the arguments of Weiss (1998) and Dale (1997), who argue that our attention should be on how state roles are being reconstituted and reconfigured, not on their 'inevitable' decline. The pressure to remain economically competitive in the face of massive structural change in the global economy—e.g., a decline in manufacturing in developed economies, the rising economic power of China and India, the loss of first, blue collar, now professional jobs in developed economies, the increasing importance of knowledge and innovation in the economy, and in parallel the declining value of raw material, etc—is **forcing states to act in certain ways in economic and social policy, principally with a view to remaining attractive to transnational capital**. The key is not if the state will remain viable and relevant but what strategies and policy responses developmental states need to adopt to remain competitive and socially cohesive; what roles education and training will have, and how their contribution can be enhanced. There is clear and present danger that education's capacity for enhancing talent and promoting understanding and tolerance could weaken in the face of globalisation pressures.

At this point it may be useful to bear in mind important distinctions and caveats. Castells (1996) has argued that under globalisation the relationship between labour and capital has changed, leading to fundamental changes in the labour market and in workplaces. It is often asserted that we now have post-industrial economies and that

future wealth generation will come from the use of knowledge to drive invention and innovation; the sub-text is that this is a desirable state of affairs and should drive economic and education policy. However, it is not clear, as is often asserted, that economies are mostly in a post-fordist, rather than a neo-fordist, stage. For example, while there has been strong growth in non-industrial sectors, Singapore, for instance, still expects to generate about 25% of GDP from its industrial sector and many aspects of economic governance—e.g., the role of trade unions—are neo-fordist in nature (Tang, 2000). **It is also not clear, for example, how the knowledge gained through extended years of content-dominated schooling, the most common version of human capital enhancement, will be of benefit in the service sector of the economy where the social skills of communication, empathy for others, toleration of difference, may be more significant.** While it is asserted that economic restructuring will bring about new growth and an expansion of opportunities, it has very painful consequences for individuals who are retrenched and for societies which face high and persistent levels of structural unemployment; what is one to make of the phenomenon of ‘jobless growth?’ We must therefore be careful not to be taken in by all the hype regarding the new economy, new workplace, new workers. If societies are now more risk prone (Beck, 1992), then the effects on marginalised sectors in society will be severe and challenge existing social policies.

How are global economic changes and changing roles for state power relevant for a consideration of education? While it is hard at one level to link decisions taken at a board meeting at Microsoft in Seattle with decisions to say, reorganise educational governance in Thailand or use more English in instruction in Malaysia, it can be asserted that the latter decision came about as Malaysia was becoming even more tightly enmeshed in the global economy in which English was becoming even more dominant in a globalising world. Green (1990), among others, has shown that national education systems developed as part of the formation of the nation state in Europe and elsewhere. Schools are sites for the preparation of the country’s labour force, preparation for social participation, for political and social identity formation and for the production of national elites, and one should therefore expect that if state power is being transformed then this will impact on policy. Green (1997) argues that in Singapore education was not only instrumental in its ‘miraculous economic development but equally as a vehicle for promoting a cohesive civic identity, based on the ideological tripod of multiculturalism, multilingualism and meritocracy’ (p. 147). Kerr *et al.* (1973) argued that higher education, for instance, was crucial to the process of industrialisation in Europe. Globalisation’s effects can be seen in greater internationalisation, of a trend towards the commodification of education, greater convergence in views about how education should contribute to the economy, greater use of choice, competition, deregulation and increasing both the involvement and burdens for parents. Some state dominated systems are moving towards an acceptance of private schooling, greater outsourcing of services, importation of business practices and terminology into education—principals as CEO’s, students as clients, use of branding to obtain a larger market share, performance targets, positions on league tables as marks of excellence, etc.

The nature and processes of educational reform in turn do not offer any clear guidelines for how states should proceed. With reference to the comment made earlier about the contradictory nature of globalisation processes, we need only note that in the US and UK, the state has assumed a dominant role in setting education policy and even prescribing practice. Similar to economic integration, is there, in spite of Green's assertion of the essential national nature of education systems, an emergent 'common world education culture'? The convergence of curriculum on a global scale is well documented. Under conditions of empire, colonies used metropolitan syllabi, textbooks and assessments regimes. Agencies like UNESCO, the World Bank, OECD, research agencies like IEA, by virtue of their recommendations, funding power and cross-national comparisons, contribute to education ministries having to adopt an internationalist mindset. The present arguments are of a different order and seem to require changes of both developed and developing economies. The argument is that as global and national economies have changed and as new types of workers are needed, educational reform is an imperative in the race to stay economically competitive. The reform rhetoric is remarkably similar across very different education jurisdictions; all reform proposals stress the need for greater attention to process, higher order thinking skills, better utilisation of technology in education, changes to assessment, greater devolution of power to principals, etc, in tandem, it must be said, in some developed economies, with moves towards greater central control over curriculum and pedagogy, more frequent assessment and on meeting specified academic outcome targets. Some have noted that with neo-liberal economic policy on the ascendant education systems are forced to do more with less, thus moving from equity to efficiency as the goal of education. The key issue for us is if this is evidence of declining state power or of the state having to use the master metaphor of our times, marketisation, to remain in charge and steer from a distance. If globalisation is indeed transforming state-market (capital) relations, then the question for educators is how the ideology and provision of schooling is being altered via reform.

Overcoming dependency

Before looking at the Singapore experience as a case study of the pressures on education and its remaking we need to understand the broader context in which strong East Asian economies emerged in the last three decades. Dependency theorists (Frank, 1984) argued that no real development was possible in peripheral states, colonies or decolonised states, as this was not to the benefit of global capital. The international division of labour was such that low wages and primitive working conditions rather than labour productivity would create surplus. Education systems would be managed to create compliant elites who would do the bidding of metropolitan elites. Such was the dominant explanation for underdevelopment in peripheral states.

Yet this was clearly not the case with the East Asian economies of Taiwan, South Korea, Singapore and Hong Kong whose rates of economic growth were sufficiently impressive to warrant talk of a new development model (Berger & Hsiao, 1990). Theorists like Johnson (1982), White and Wade (1988) and Castells (1992) have

characterised these states as ‘*developmental states*’. A developmental state is one which gains legitimacy through ‘its ability to promote and sustain development’ (Castells, 1996, p. 182). Taiwan, South Korea, Singapore and Hong Kong were at this stage fragile states whose sovereignty was under threat; high rates of economic growth provided resources for socio-economic development, thus ensuring legitimacy. In the case of the four economies the developmental strategy was fostered and managed by the state, which used foreign direct investment to create export-oriented economies. Though dependent at an earlier stage on both capital and technology imports, both Taiwan and South Korea (as did Japan earlier) were able to accumulate capital surplus at home and develop R & D capacity to such an extent that they were able to create their own multinationals, whose investment in the region further boosted growth. At the centre of the modernisation effort was the state, which both facilitated the economic activity by managing external capital but was in many cases, a major economic player itself. Thus the East Asian state was a strong and autonomous state and was able to ‘*govern the market*’ and not be subservient to it.

A key strategy in these developmental states was the implementation of policies in education and training designed to boost stocks of human capital. The enhancement of labour productivity was seen, in the earlier context of low innovation capacity, to lie in expansion of education. In addition to expansion of secondary and post-secondary institutions, a greater emphasis on science and technology in the curriculum and expansion of vocational and polytechnic education, these states were able to achieve a tight coupling of education and training systems with state-determined economic policies. These developmental states created centrally planned, universally available, standardised, and state driven education systems, which created the national subjectivities necessary for affiliation to the states’ modernisation project. The return of investment on education was such that the states could justify the expansion and diversification of education as high priority; wealth generated by economic growth justified further investment in education. Thus a virtuous circle of investment in high skills creation, which justified high wages and thus higher standards of living all around, was created in these developmental states (Ashton *et al.*, 1999; Brown & Lauder, 2001b).

What is significant for our present discussion is the fact that following the 1997 East Asian crisis and the accelerating pace of globalisation, the East Asian developmental state model has come under scrutiny (Pang, 2000; Low, 2001; Hsieh & Tseng, 2002). Neo-liberal opinion in the west, which has now become dominant, has pointed to the crisis as an example of the consequences of state intervention in the economy leading to the growth of *crony capitalism* and *clientalism*, among others (see also Robison, 2000; Leong & Sidhu, 2003). The crisis has resulted in major political changes, e.g., the fall of the Suharto regime in Indonesia, steep rises in unemployment and poverty and the increased power of multinational organisations like the IMF over national economic policy. The crisis has thus had broad economic, political and social effects. Significant as the crisis was another major development in globalisation has been the consequences for East Asian economies of economic liberalisation in China and India. In two decades, with astonishing rapidity, first China and now India have signalled an intent to be full players in the global economy and become

major attractors for FDI. Their vast reservoirs of skilled but low cost labour is leading to a new international division of labour which is impacting negatively on both western and the East Asian economies. There are new fears of a hollowing out of the industrial sector and rising levels of unemployment; though high skills remain important high wages, it seems, are now a drag on the economy. In response, economic strategy in Singapore since 1997 has been both to reduce business costs and to accelerate investment and growth in a number of new industries such as biotechnology, information technology, financial services, education and creative industries.

As the economic environment has been transformed, so too has the political and strategic environment. Following the terrorist-inspired attacks on US institutions in September 2001 and the subsequent US-led wars on Afghanistan and Iraq and the rise of radical Islam in Southeast Asia plural societies in South and Southeast Asia have seen the emergence of new strains in social cohesion. Multiethnic states like Singapore with Malay-Muslim populations have had to act swiftly to strengthen cohesion. Given that one of education's aims has always been the enhancement of social solidarity these new developments raise questions about state-dominated education systems capacity to manage. The Ministry of Education in Singapore has, for instance, identified the strengthening of interethnic relations in schools as a major priority for the next three years.

The Singapore context

Two features of the Singapore context are worth noting in this discussion of globalisation and education. The first is that as a small island with no natural resources except a strategic location, Singapore's survival has always depended on its usefulness to major powers. It attracted colonial interest because it provided a well-placed base for economic penetration of the region; and the colonial experience, 1819–1963, served to deepen Singapore's integration into Britain's economic empire. Although there was political contestation in the 1950s over culture, languages and political issues, there was also early recognition of the value of English, the colonial language as an economic resource (Gopinathan, 1974). Early planning for transforming Singapore's economy from an entreport to an industrial economy in the late 1950s recognised the need for foreign capital, technology and markets. Singapore thus eschewed the ideology of economic nationalism that characterises many postcolonial states. This clear grasp of the need for economic openness to global economic forces still characterises planning in Singapore even though the country is now considered a developed economy with a per capita annual income of more than US\$20,000. External trade is a major component of Singapore's economy, and Singapore's leaders are fond of making international comparisons as a way of benchmarking achievements. Singapore is perhaps unique in the world economy in that it relies very heavily on trade and therefore has always had to have an open economy. Indeed, in 2001 *Foreign Policy* ranked Singapore as the world's most 'globalised' nation.

Yet, while Singapore has been an avid participant in the global economy, its policy makers have sought to ensure that Singapore is neither swamped by external forces

nor in danger of becoming a client-state. Official recognition of the value of English was counterbalanced by the insistence that all students learn a second language, Mandarin, Tamil or Malay (Gopinathan, 1974). The Government's insistence on strengthening Singapore's cultural identity as an Asian state was, of course, due to the need to manage skilfully and sensitively Singapore's ethnic and linguistic plurality, and the fact that Singapore had a Chinese-majority population in an area dominated by Malay-Muslim communities. Singapore's leaders recognised early the value of the civilisational wisdom represented by Singapore's ethnic groups. Recognition and affirmation of ethnic-cultural values then formed the basis for articulating the boundaries of Singapore's socio-cultural identity (Gopinathan, 1995). Singapore's leaders continue to emphasise that the Westminster model of democracy is not appropriate for all, and that nations must be allowed to develop their own forms of human rights, i.e., which take the cultural context for its expression into account. Singapore has also aligned itself to the view that the neo-Confucian ideology is a sensible alternative framework for socio-economic and political organisation.

Education policy initiatives: 1997–2004

The 1990s saw globalisation processes accelerating, aided by the widespread use of the Internet for a variety of purposes including personal email, official communications, delivery of entertainment and emergent e-commerce and e-Government sectors. In the later part of the decade East Asian economies also experienced, as noted earlier, a sharp recession—beginning in 1997, with differentiated rates of recovery as the decade ended. These two developments, among others, accelerated the questioning of the resilience of the existing education systems in the context of new demands for economic competitiveness.

Given the changed economic, strategic and social environment it is inevitable that the adequacy of education and training regimes would be questioned. **What is the future for high skills formation strategies in period of relative economic decline and greater societal stress? (Brown & Lauder, 2001b). Education reform in Singapore is primarily a way of retooling the productive capacity of the system, one that the state has taken at periodic intervals.** There was already an appreciation that only the first half of the 'Thinking Schools, Learning Nation' initiative had seen extensive policy development—the present economic crisis has led to renewed attention to retraining of workers, led by the creation of a new agency, the Singapore Workforce Development Agency. Other issues that needed to be dealt with are the relative inflexibility of the system, the lack of entrepreneurial flair or risk aversion among school leavers, the lack of creative capital due to the overly academic orientation of the curriculum and new questions about the appropriate mix of skills and knowledge required for doing well in the new economy.

The Singaporean Government's reading of the emergent new economy was that it required of school leavers entirely new sets of skills. The growth of the service sector and a speeding up of market liberalisation for banking and telecommunication and the possibilities emergent in a technology-driven economic environment put a high

premium on innovation, flexibility, entrepreneurship, creativity and a commitment to lifelong learning. The decade of the 1990s was also the time that the Government began to realise the potential of computers to enhance learning by providing access to new information sources, self-paced and often interactive learning, and any-time-anywhere learning. Traditional education systems dominated by teachers and syllabuses began to look decidedly inadequate. As Brown and Lauder (2001) argue 'the learning model of the mass production of goods and services has become a source of "trained incapacity" in a knowledge-driven economy' (p. 114).

We have to be aware of continuities in Singapore education's reform narrative. The 1997 'Thinking Schools, Learning Nation' initiative was preceded by the independent schools initiative in 1987, a decade earlier and at a time of economic slowdown. The latter an effort to break with conformity in the system and in governance terms to decentralise and introduce greater choice and school autonomy. In 1997, the Government began a review of the entire system from pre-school education to university admission criteria and curriculum. For the first time university academics and other education personnel, particularly principals, were extensively involved. Though the information technology (IT) initiative came earlier than Prime Minister Goh's landmark Thinking Schools Learning Nation (TSLN) speech in June 1997, and work on the 'Desired Outcomes of Education' had also begun earlier, the reforms can be collectively considered under the Thinking Schools, Learning Nation framework.

Goh Chok Tong said in 1997 that 'TSLN is not a slogan for the Ministry of Education. It is a formula to enable Singapore to compete and stay ahead'. The Ministry of Education defined its mission as 'Moulding the Future of the Nation', its vision as 'Thinking Schools Learning Nation' and its goal the 'Desired Outcomes of Education'. The DOE was an attempt to define the aims of holistic education and in categorising the values, skills and attitudes that Singaporean students should attain at different stages of the education cycle. It was a strong restatement of the need to develop the whole child, and recognition of the wide range of talents, abilities, aptitudes and skills that students possess. **An ability driven curriculum was to be developed which would be more flexible and accommodating of variability in ability, aptitude and talent in pupils to help achieve DOE goals. 'Thinking Schools' were intended to ensure a more process centred environment while 'Learning Nation' aimed to promote a culture of continual learning beyond the school environment.** This is evidence of the recognition that Singapore schools needed a much higher threshold for experimentation, innovation and uncertainty where output is not always guaranteed or even expected. The ideal student for the knowledge-based economy would be one who is literate, numerate, IT-enabled, able to collate, synthesise, analyse, and apply knowledge to solve problems, capable of being creative and innovative, not risk-averse, be able to work both independently and in groups, and be lifelong learners.

TSLN has four major thrusts: emphasis on critical and creative thinking, the use of information technology in education, national education (citizenship education) and administrative excellence. Examples of specific changes in the curriculum implemented since 1997 are the teaching of thinking skills through infusion and

direct teaching, the introduction of interdisciplinary project work, the introduction of a school cluster system to decentralise administration and promote even greater autonomy. Leadership training was recast to emphasise the need to manage schools as learning organisations and the need for commitment and values; also introduced was the provision of an entitlement of 100 hours a year in-service training to keep teachers up to date and skilled. Some changes to assessment were also introduced and project work is now included in universities' admission criteria, and university curricula have been changed to make undergraduate education broader. New programmes have also been introduced in the polytechnics and universities to produce manpower for the new industries.

IT's potential contribution to enhancing learning has been recognised with a commitment of two billion Singapore dollars to provide, in the first phase (1997–2002), one computer for every five students, and later, one for every two students. There is clear recognition that the computer is but a tool, and the emphasis is on integrating it into learning and teaching for up to 30% of instruction time. All teacher trainees have compulsory and elective modules to equip them with ICT skills.

National education is in some ways a continuation of efforts since the mid 1960s to socialise the younger generation of Singaporeans and its main goal is to strengthen identification with the nation. What is striking in the present effort is the recognition that globalisation and the opportunities provided in a changing economy will strain the loyalties and attachments of young Singaporeans. The younger generation is increasingly aware of growing global learning and employment opportunities; indeed Singapore's economic strategy is to require Singapore companies to diversify in the region. A reasonable grounding in English, a reputation for effort and reliability make Singaporeans good students and employees. The situation is exacerbated by the Government's commitment to attracting global talent to Singapore to fill skills shortages. The response via national education is the introduction of activities, both curricular and non-curricular, to sensitise young Singaporean to Singapore's national needs, concern and possibilities, to make Singapore their 'best home'.

Significant as the 1997 reforms were, they essentially dealt with changes required of pedagogy and left untouched issues of greater structural flexibility and choice. Though the universities had begun to consider if the A level examination results of students would continue to serve as adequate indicators of quality as they moved towards a broad-based curriculum, the Ministry had not reviewed its position on examinations or on greater diversification in the system. The establishment of a committee to review junior college/upper secondary education provided this opportunity. The subtitle to the report published in October 2002 was *Greater breadth and flexibility* and *Nurturing diverse talents*. The terms of reference of the committee was to propose changes to the JC curriculum, to make it more broad-based (in line with changes being made to the undergraduate curriculum to set out a vision for JC/US education, including the appropriate structures, types of programmes to be offered, and the mix of schools to deliver the programmes. The rationale was 'we face the challenge of preparing students for an era of innovation-driven growth, and frequent and unpredictable change in the economic and social environment. We have

to regear ... To prepare students for this future ...'. There can be 'no single formula. ... We will need many talents, nurtured and trained along different paths' (pp. 3, 4).

Apart from proposed changes to the JC curriculum, essentially an exercise in redistributing content, the **major innovation is the opportunity provided to the top 10% of the primary school cohort to enter integrated programmes to be offered by the independent schools and a number of the top junior colleges.** These integrated programmes will enable students to skip their O level examinations and move directly to the junior college curriculum. The Ministry's assessment is that up to 10% of the primary cohort could benefit from the integrated programmes. The Ministry requires the participating schools and JCs to ensure that access is open to non-affiliated students, that access is available at different stages, that admission is merit-based and transparent and that the time 'saved' from not preparing for O levels be spent on **broader learning experiences, in innovative project work, leadership programmes and a range of co-curricular activities.**

Yet another radical departure recommended by the committee was the approval for the establishment of specialist schools like the 'Sports School', which admitted students in 2004, and the 'Science and Mathematics School' to be hosted by the National University of Singapore to start in 2005; a school for the arts is being considered. The committee also saw a need to allow for the establishment of a few privately-run, privately-funded secondary schools and JSs to add diversity and choice, provide an additional source of ideas and innovative practices in education, attract fee paying students from abroad and cater to children of returning Singapore expatriates. These schools will be required to implement MOE's policies on bilingual education and national education and to have at least 50% of Singaporeans in their enrolment.

Three broad areas enabling teachers, nurturing students, holistic assessment characterise reform initiatives in 2004. The broad policy rationales were announced by Singapore's new prime minister Lee Hsien Loong who coined the phrase 'Teach less, learn more' as a way, he said, of achieving 'a qualitative change, a quantum leap to get a different sort of education ...'

Recognising that schools needed more resources if the reforms were to succeed the Ministry promised schools more teachers—1000 more primary teachers, 1400 more secondary teachers and the junior colleges/centralised institutes 550 more teachers. Primary schools could also obtain up to S\$100,000 each to develop high quality programmes and be able to reduce class size from 40 to 30. Schools would also be given full time school counsellors and funds to employ former teachers as adjunct teachers.

Though the Singapore education system today is a much more flexible and variable system there are still considerable rigidities caused by tracking at the secondary level. Changes announced in 2004 allow schools with Normal (Academic) and Normal (Technical) streams to broaden curriculum offerings and indeed to develop elective modules. **Though the high stakes examinations—the Primary School Leaving Examination (PSLE), the O and A levels remain and success in them is much sought after by students and schools,** the Ministry has made changes that it is hoped will lessen the impact of examinations. Schools will be given greater discretion to offer

students places—up to 20% for independent schools and 5% for mainstream schools, selecting these students first prior to accepting students posted to them by the Ministry. The Ministry also moved to broaden criteria for school ranking.

The education and training reforms that have been proposed by the review committee and the earlier reforms signal an effort by the state to ensure that high and relevant skills are available for the restructuring economy; an educational paradigm of flexibility, and of choice seems to be emerging, one that might replace the uniformity that still characterises Singapore schooling. While there have been few systematic evaluations of Singapore's education reforms (the exceptions were Tan, 1996; Koh, 2003) it would appear that the independent schools initiative, serving as it does the brightest 10% of primary cohort did not result in major changes to curriculum and assessment. A more diverse pedagogy was facilitated and money was available for outsourcing and enrichment projects. Tan has argued that more high SES band students gained access to these prestigious schools. As regards IT Masterplan 1 it essentially provided the hard infrastructure and some IT skills. Project work initiatives have been institutionalised and in some schools are well used but in many other schools it has been selectively routinised and absorbed into the teachers' repertoire. National Education is beset with problems of meaningful integration into curricular and co-curricular activities and scepticism from older students.

The 2002–2004 reforms move the restructuring process forward; the key elements of flexibility, choice, and greater site autonomy remain. For the first time structural flexibility has been allowed and the secondary education landscape will become a more diversified one. Schools involved in the integrated programme, e.g., National Junior College, Chinese High, etc, will be substantively changed in character while other initiatives like the St Andrew's community concept, will introduce new pathways for primary-secondary, post-secondary transitions. There appear to be some real prospects for new curricular configurations for those within the IP programmes and there is a commitment to experimenting with new pedagogies, aided by the removal of the necessity for some students to take the O levels, a major reform of assessment. Potential difficulties are that these opportunities are only available to the academically talented and will place great challenges on teachers; it will be some time yet before we can assess if they have coped with the challenge.

At the time the Government was launching its TSLN initiative it was also addressing the training needs of those in workforce as part of its commitment to create a learning nation. In 1998, the Ministry of Labour was restructured as the Ministry of Manpower in order to more effectively contribute to overall manpower planning, manpower planning and manpower development are key foci of MOM. The strategic aim was to move from a regulatory role, ensuring industrial harmony to one that would help create a globally competitive workforce to support Singapore's vision of its place in the globalised knowledge-based economy. The MOM developed a Manpower 21 plan to facilitate an integrated training infrastructure in order to upgrade the quality of employee talent.

A further development is the Singapore Workforce Development Agency (WDA), created in 2003. The key role of the WDA is to help make employees and job seekers

more employable and competitive in order to build a workforce that is skilled, nimble and able to meet the changing needs of Singapore's economy. Apart from helping workers keep jobs the agency will help employees constantly learn and upgrade their skills to remain competitive, and to be prepared to learn new skills for new jobs (see <http://app.wda.gov.sg/vision.asp>). The Agency will also help retrain and re-skills professionals and executives to transfer to high growth sectors such as infocomm, e-learning, logistics, social and community services, healthcare and intellectual property.

Whither the Singapore state and its education policies?

The key issue for us is to assess if the strong developmental state has retreated under the onslaught of globalisation and forced to make accommodation in its systems of education and training. Are we witnessing a retreat from the major principles that characterised the building up of national education systems as argued by Green (1997), Aston and Sung (1997) Brown and Lauder (2001b)? Are we entering a new dependency regime, a new international division of labour that renders old assumptions and processes about the nation state and its role in education obsolete? **It is well to remember Dale's (1997) caution that the contemporary comparative issue in the analysis of education systems is one not so much of witnessing the banishment of the state as of 'locating it and disaggregating its activities' (p. 274).**

Globalisation's impacts are felt differently on nation states with each nation's room for manoeuvres and choice of response strategies dependent upon its history, location in the international system, political and economic strength and any number of associated variables (Leong & Sidhu, 2003). Nations do want to be economically competitive—but not all are prepared in equal measure to accept IMF—imposed restrictions or willingly accept limits to economic policy making. For example, Malaysia imposed capital controls during the Asian economic crisis in 1997 and Singapore broke ranks in negotiating a free trade agreement with the US. Many developing countries will be emboldened by the failure of the 2003 round of WTO negotiations and the failure of Sweden to join the Euro zone (on the grounds that joining would mean having to weaken welfare provisions).

Still, as with many other countries, Singapore has had to review its economic and social policies in response to globalisation. Singapore today faces its most severe challenge in the economic sphere in almost three decades, with unemployment in 2003–2004 close to 5% and a declining share of FDI. Most notable of the review efforts are the Economic Review (2002) and the Remaking Singapore (2003) committees set up by the Government to review policies, and many recommendations from these reports touch on education policy. The essential thrust of these reports is that globalisation's challenges cannot be avoided, must be met even at the cost of short-term economic pain via retrenchment, job loss and reduced incomes, and investment in new sectors like biotechnology, which have growth potential. There is an acceptance that the state ought to reduce its roles in the economy, move away from its present regulatory to a more facilitative stance, and generally allow businesses more space, choice and flexibility—in general, to take steps to allow more

entrepreneurial activity to flourish and to encourage more home grown small and medium sized enterprises. It will be recognised that many of the core assumptions and recommended steps are similar to those advocated in the reforms proposed for education.

These steps are not those of a state pushed to the wall by globalisation; they are the responses of a strong state acting with a view to strengthening the local and the national in order to deal better with the regional and international. Singapore is not a case of a weakened postcolonial state and its current reforms in a number of areas promise a toughened model for tougher times. Singapore's model of governance, its commitment to transparency and rule of law enable it to avoid the state and business excesses found in Korea and Taiwan. Singapore's prudent financial management has left it resource rich and capable of capital-induced productivity, just as its education system is sufficiently robust to produce much of the human capital needed in the new industries and services. Finally, Singapore's success as a developmental state in comparison with say, Taiwan or South Korea is all the more remarkable in that it is a small state and in economic terms possessing only strategic location but not natural resources or a large domestic market. In some ways, the state is the only game in town and it would be hard to imagine a stable and prosperous Singapore without the strong state, especially in the present climate of risk and uncertainty. Thus it can be argued that the Singapore state continues to enjoy policy and resource capacity, has high legitimacy and its power to persuade and mobilise, while weaker than previously, is by no means fatally damaged. These are more than residuals; they are the elements that will be necessary to remake the state.

It is clear that schooling and training as a sociocultural and economic enterprise will be affected by globalisation. State-funded systems like Singapore depend on economic prosperity for their maintenance and growth and a reduction in Government revenue will affect funding levels and create conditions for a user-pays philosophy. Education will be seen to be less of a common good and more of a commodity that can be priced and purchased, because it can be seen as primarily of benefit to the individual and his family. A neo-liberal economic philosophy will favour an education market place, the entry of private capital in education services, greater devolution and less central control so that schools can be more responsive, firm-like to their customer's changing preferences and needs. Market information will be valuable so that customers can make enlightened choices—hence the popularity of school league tables. Finally, while central authorities are prepared to devolve, in many jurisdictions devolution has been accompanied by more central control as in the UK and Australia with the emphasis on meeting performance targets and the specification, often in minute detail, of competencies. In the post-secondary sector, funding is declining and institutions are urged to be more entrepreneurial.

As noted earlier in the description of educational reforms in Singapore many of the elements of the neo-liberal education agenda is evident. There is recognition of the need for greater choice, hence the recent moves for greater curricular and structural flexibility. Policy-makers as providing the information needed to make choices and as a spur have justified school ranking to excellence; schools that want to increase

market share must be seen to be performing well. The provision of space for private schools and a private university could be seen as the true beginning of a marketisation process. And the language of mission statements, branding, the notion of students as clients is much more evident now in educational discourse than previously. In January 2005 the Government announced that Singapore's two public universities will be corporatised to give them more flexibility to enable them to have more leeway to recruit world class talent, manage their budgets and build a stronger sense of loyalty and ownership amongst students, staff and alumni.

Too much can be made of these reforms to suggest that the state has succumbed to globalisation-influenced policy changes in education. At the present time these changes are best read as tactical changes made by a strong state. The Ministry is only prepared to accept two–three private schools and they will retain key elements of the Singapore curriculum, bilingualism and national education, key instruments for citizenship formation. While there has been devolution in educational governance, beginning with the establishment of independent schools in 1987 and strengthened by moves to introduce 'integrated programmes', and the introduction of the school clusters, crucial funding and directive power lies with the state. The proposed private university is a move to allow citizens greater access to university education and to staunch the flow of students to overseas, especially Australian, universities. And the announcement of corporatisation was also the occasion for the Government to say it would continue to fund the universities generously and to appoint university council members.

Policies for unquiet times

The key issues for the future of the developmental state model do not lie in the mezzo-level changes to curriculum and structure but in broader social processes. The key task for ethnically diverse, small but strong states like Singapore is to address not only the economic challenge but also the need to generate even greater social cohesion, more social capital, in a context of greater social risk and uncertainty. Lai (2004) has pointed out that when economic growth weakens, religion, ethnicity and class can become sources of social conflict. The ideal of the liberal-democratic state is even more vital in unquiet times. Many scholars celebrate the emergence of attention to diversity and difference, of hybridity, of technology-enhanced interconnectivity, of the ability, need and value of crossing borders but seldom acknowledge risks and costs.

Singapore's successful nation building experience has hinged on the capacity of the state to mobilise to win allegiance of disparate subjects and in this task the policy of meritocracy has been central. Expansion of educational opportunities, curricular diversification, maintenance of educational quality and relevance and crucially matching these with labour market needs, enabled the schooling system to be a real source of upward mobility. However, this prosperity-loyalty compact is under strain, due to both security and economic imperatives, and the state needs to avoid being forced to move towards a neo-liberal political settlement. This is because the task of

nation building is far from over in Singapore and current environment presents threats beyond the economic. The US-led war on terrorism is likely to dominate the political and security agenda for the rest of the decade and the existence of Muslim extremist terror networks in Southeast Asia, and indeed in Singapore, is a fact. Some in the western media and scholarly community paint Muslims and Islam as intolerant and a danger, and a threat to western civilisation (Huttington, 1997). Singapore's Malay-Muslim community, already lagging behind in the socio-economic race (Tan, 1997) in spite of advances in the past two decades, feels vulnerable. **In this context, relatively minor educational moves such as those to modernise the madrasah curriculum or regulate the use of the 'tudong' become politically charged.**

A second feature that has implications for social solidarity is growing income inequality that will raise questions about the fairness of the meritocratic model that Singapore employs. As Rodan (1997) points out 'many Singaporeans are finding themselves in the wrong half of a dual labour market that separates, with increasing sharpness, the skilled and well paid from the unskilled and low paid' (p. 165). This situation is worsened by the influx of unskilled guest workers and managers, IT professionals, investment analysts, etc, a policy the Government defends as being vital to Singapore's economic competitiveness. Rodan cites data from the 1990 census to show that 20% of households had incomes of less than S\$700 a month while the top 10 percent were receiving a monthly income of S\$9700 and above. The position post 1997 is decidedly worse for the un- and low-skilled. In 2000 incomes for the top 10% of resident households grew 8.8% while incomes for the bottom 10% of wage-earning households shrank 13.6% (cited in Lai, 2004, p. 36). Lai (2004) notes that **'a widening economic gap with a class-race overlap is probably emerging to an extent in the highly competitive and globalised economic setting that places a premium on educational performance and credentials ...'** (p. 13).

It is in this context that recent moves in education to add further differentiation and variety are likely to pose some dangers. **The cognitive elite, already the ones best placed to benefit from Singapore's streamed system of education, will gain further advantage from the integrated programme** and the well-to-do will benefit from the establishment of private schools and universities, and opportunities to seek education abroad. So long as the economy was growing and there were jobs for all there was less resistance to structural inequality in the system. But in a much more volatile economic environment, and indeed one that is said to value innovation, creativity and risk taking, it can be argued that limiting options for large numbers of school goers and favouring the top 10% will lead to the sort of 'trained incapacity' that still blights a sizeable proportion of Singapore's labour force.

The primary problem with the reforms formulated from 1997 onwards is the reluctance to engage in radical measures, understandable since the system has proved to be effective in the past. Though there is acceptance that the future will be different old habits die-hard. Policy is still dictated by the core assumptions that ability can be detected early and must be differentially developed, that SES should count for little if the school is fair and effective, that reform and change will be accepted and implemented if the rationales are sound and bureaucratic measures like career development

plans, industry attachments, sabbaticals, etc, are sufficient to keep teachers motivated and committed. Thus at the school level, change, while it is occurring, is not yet fundamentally changing pedagogy and practice. Teachers having to cope with large classes, a content dominated curriculum and high stakes examinations have taken on initiatives like thinking skills but rather than allow for a reconceptualisation of practice have, in many cases, bolted on acceptable elements and routinised procedures—a technique-oriented view of creativity prevails.

Conclusion

Singapore's future as a viable state in a rapidly changing world will of course depend on more than the education reforms it is undertaking. However, the past four decades have demonstrated that education is central to the ways in which the state makes itself relevant to its citizens, and to the ways in which it engages with the wider international community. How Singaporeans produce, engage and utilise knowledge will be key to success in the knowledge economy.

This, however, must mean that learning opportunities, second chances, adult learning etc., must be available to all; if the Government can no longer pick winners in the economy (but it continues to try as in the life sciences initiatives), neither can it on the basis of school assessments provide some with opportunities and not others. **The ability driven curriculum initiative is a step in the right direction as is diversification of structure—more choices are available but fundamental assumptions about ability and its identification remain.** This cannot but limit the creation of an innovation-oriented, risk-taking workforce.

The acceptance of increased inequalities, what Brown and Lauder call 'fragmentary consequences of market capitalism' (2001b, p. 128), and the seeming inability of the state to manage the socio-economic consequences of globalisation has serious implications for **social solidarity**. When there is more intense positional competition, the upholding of meritocracy becomes more problematic. Greater structural differentiation in the school system, and the creation of alternate pathways with their attendant differences in opportunity will contribute to a hardening of social class divisions. If, not carefully handled, Singapore would be in danger of weakening social cohesion to favour the economy and put the great contribution education has made to Singapore in the last four decades at risk.

The Singaporean nation-building project is at a crossroads. The adoption of a developmental state model in which the state was a key economic player succeeded brilliantly. Education policy was a key instrument in this project providing the subjectivities needed to bond the disparate ethnic groups and to provide the skills needed as industrial modernisation commenced. From a point when education policy was deeply contested as in the sixties over access, opportunity and identity, the state has skilfully used education policy to both transform society and in that process to make education a valued social institution.

Singapore's remarkable socio-political development and the changes it seeks to implement in education are illustrative of the wider debates about the power of

globalisation and the capacity of states to remain viable and relevant. Singapore's developmental history places it clearly in the category of strong states. **Yet it is small and vulnerable, highly dependent upon trade and multi-ethnic in social composition.** Does the state have the capacity to pro-actively act to retain control or is the adoption of market type reforms a sign of weakening state influence? **Our analysis of educational reform in Singapore suggests that the former is the case.** It is also clear, however, that while the state will steer it cannot be sure that it will well manage all the consequences that will flow from the educational changes it is enacting.

References

- Applebaum, R. P. & Henderson, D. (Eds) (1992) *States and development in the Asian Pacific Rim* (London, Sage).
- Ashton, D. & Sung, J. (1997) Education, skill formation and economic development: the Singaporean approach, in: A. H. Halsey, H. Lauder, P. Brown and A. S. Wells (Eds) *Education, Economy and Society* (Oxford, Oxford University Press).
- Ashton, D., Green, F., James, D. & Sung, J. (1999) *Education and training for development: the political economy of skills formation in East Asian newly industrialised economies* (London, Routledge).
- Beck, U. (1992) *Risk society: towards a new modernity* (London, Sage).
- Berger, U. (1992) *Risk Society* (London, Sage).
- Berger, P. L. & Hsiao, H-H, (Eds) (1990) *In search of an East Asian development model* (New Brunswick, Transaction Books).
- Brown, P. & Lauder, H. (2001a) *High skills: globalisation, competitiveness and skills formation* (Oxford, Oxford University Press).
- Brown, P. & Lauder, H. (2001b) The future of skill formation in Singapore, *Asia Pacific Business Review*, 7(3), 113–138.
- Castells, M. (1992) Four Asian tigers with a dragon head, in: R. P. Applebaum & J. Henderson (Eds) *States and development in the Asian Pacific Rim* (London, Sage).
- Castells, M. (1996) *The Rise of the Network Society* (Oxford, Blackwell).
- Chua, M. H. & Ng, J. (2004, October 28) Teach less, learn more: the challenge for MOE, *The Straits Times*, p. H16.
- Dale, R. (1997) The state and the governance of education: an analysis of the restructuring of the state–education relationship, in: A. H. Halsey, H. Lauder, P. Brown & A. S. Wells, (Eds) *Education, culture, economy, society* (Oxford, Oxford University Press).
- Fukuyama, F. (1992) *The end of history and the last man* (New York, Free Press).
- Giddens, A. (1999) *Runaway world: how globalisation is reshaping our lives* (London, Profile Books).
- Goh, C. T. (1997) *Shaping our Future: Thinking Schools, Learning Nation* (Ministry of Education, Singapore). Available online at: <http://www1.moe.edu.sg/Speeches/020697.htm> (accessed 15 April 2000).
- Gopinathan, S. (1974) *Towards a national system of education in Singapore 1945–1973* (Singapore, Oxford University Press).
- Gopinathan, S. (1995) Religious education in a secular state: the Singapore experience, *Asian Journal of Political Science*, 3(a), 15–27.
- Gopinathan, S. (1996) Globalisation, the State and Education Policy in Singapore, *Asia Pacific Journal of Education*, 16(11), 74–87.
- Gopinathan, S. (1997) Education development in a strong-developmental state: the Singapore experience, in: W. K. Cummings & N. McGinn (Eds) *Handbook of education and development* (New York, Garland Press).
- Gopinathan, S. (1999) Preparing for the next rung: economic restructuring and educational reform in Singapore, *Journal of Education and Work*, 12(3), 295–308.

- Green, A. (1990) *Education and state formation* (London, Macmillan).
- Green, A. (1997) *Education, globalisation and the nation state* (Basingstoke, Macmillan).
- Huntington, S. P. (1996) *The clash of civilizations and the remaking of world order* (New York, Simon & Schuster).
- Hsieh, Y. L. & Tseng, S. F. (2002) The welfare state in the 'information age', hollowing out or restructuring in the changing labour market in Singapore?, *International Journal of Human Resources Management*, 13(3), 501–521.
- Johnson, C. (1982) *MITI and the Japanese miracle: the growth of industrial policy, 1925–1975* (Palo Alto, Stanford University Press).
- Kerr, C., Dunlop, J. T., Harbison, F. & Meyers, C. A. (1973) *Industrialism and industrial man* (Harmonsworth, Penguin).
- Koh, A. (2002) *Tactical globalisation: the Singapore State, Education Policy(y)ing and identity (re)making*. Unpublished thesis, University of Queensland.
- Lai, A. E. (2004) Introduction: beyond rituals and riots, in: A. E. Lai (Ed.) *Beyond rituals and riots: ethnic pluralism and social cohesion in Singapore* (Singapore, Eastern Universities Press for Institute of Policy Studies).
- Leong, C. W. & Sidhu, R. (2003) A tale of two cities: education responds to globalisation in Hong Kong and Singapore in the aftermath of the Asian economic crisis, *Asia Pacific Journal of Education*, 23(1), 43–68.
- Low, L. (2001) The Singapore development state in the new economy and polity, *The Pacific Review*, 14(3), 411–441.
- Ministry of Education (1998) *Learning to think, thinking to learn: towards thinking schools, learning nation* (Singapore, Ministry of Education).
- Ministry of Education (2002) *Report of the Junior College/Upper Secondary Education Review Committee* (Singapore, Ministry of Education).
- Mok, K. H. & Tan, J. (2004) *Globalisation and marketisation in education: a comparative analysis of Hong Kong and Singapore* (Cheltenham, Edward Elgar).
- Ohmae, K. (1996) *The end of the nation state* (London, Harper Collins).
- Pang, E. S. (2000) The financial crisis of 1997–98 and the end of the Asian development state, *Contemporary Southeast Asia*, 22(3), 570–593.
- Pierre, J. (Ed.) (2000) *Debating governance* (Oxford, Oxford University Press).
- Robison, R. (2000) Introduction, in: G. Rodan, K. Hewison & R. Robison (Eds) *The political economy of Southeast Asia: an introduction* (Melbourne, Oxford University Press).
- Rodan, G. (1997) Singapore: economic diversification and social divisions, in: G. Rodan, K. Hewison & R. Robison (Eds) *The political economy of Southeast Asia: an introduction* (Melbourne, Oxford University Press).
- Sharpe, L. & Gopinathan, S. (2002) After effectiveness: new directions in the Singapore school system, *Journal of Education Policy*, 17(2), 151–166.
- Stiglitz, J. (2002) *Globalisation and its discontents* (London, Allen Lane).
- Tan, J. (1996) *Independent schools and autonomous schools in Singapore: a study of two school privatization initiatives*. Unpublished Ph.D. dissertation, State University of New York at Buffalo.
- Tan, J. (1997) Improving Malay educational achievement in Singapore: problems and policies, *Asia Pacific Journal of Education*, 17(1), 41–57.
- Tan, J. (1998) The marketization of education in Singapore: policies and implications, *International Review of Education*, 44(1), 47–63.
- Tang, K. L. (2000) *Social welfare development in East Asia* (New York, Palgrave).
- The Straits Times (2005, January 3) Public universities to be given more freedom, *The Straits Times*.
- Weiss, L. (1998) *The Myth of the Powerless State* (Cambridge, Cambridge University Press).
- White, G. & Wade, R. (1998) Developmental states and markets in East Asia: an introduction, in: G. White (Ed.) *Developmental States in East Asia* (London, Macmillan Press).
- Wylie, C. (1995) Contrary concepts: the application of the public sector framework in education, *New Zealand Journal of Educational Studies*, 20(2), 149–164.