

Managing Human Capital in World Cities: Education Reform, Nurturing Talent and Student Learning in a Globalizing World

Critical reflections on managing human capital



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History and Vulnerabilities of Singapore

The history and vulnerabilities of Singapore are the chief causes for its government's overriding characteristic of being an "administrative state" or what other commentators describe as a "developmental state". 2 Its genesis as a nation was "traumatic" as it experienced separation from Malaysia.3 Early in its turbulent past, the fledgling nation realized that ${f social}$ cohesion among its diverse races was critical in order to accomplish nation-building goals. As a result, a ${f strong}$ elite-driven technocratic leadership steered Singapore to economic progress and in the process managed to achieve a unique form of social cohesion evidenced by the absence of racial and ethnic riots that once besieged it.5

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Background

Background

Education as strategic instrument

Singapore has consistently used education pragmatically as a strategic instrument to accomplish not only economic goals but social cohesion and nationbuilding objectives as well. In the early decades after the independence of Singapore, the People's Action Party (PAP) played, and still continues to play, a vital role in directing the nation's fortunes. The PAP elite-led, pragmatic and results-oriented style of governance has produced tangible results both in the economy and general well-being of Singaporeans.

¹ Low, L., Toh, M. H., & Soon, T. W. (1991). Economics of Education and Manpower Development: Issues and Policies in Singapore. Singapore: McGraw-Hill.



Background Education and Training

Education and training and its relation to human capital formation have led individuals and societies to invest heavily in its acquisition with the hope of **reaping expected higher returns.** ¹ The linkages between nope of reaping expected higher returns. The finlages between education and training on the one hand and notions of income equality and inequality have been investigated quite extensively internationally ² and in Singapore. ³ Another area that has similarly been studied quite thoroughly would be the **linkages between education and** citizenship and civic participation. 4

Mincer, J. (1958). Investment in Human Capital and Personal Income Distribution. The Journal of Political Economy, 6(4), 281-302.

Becker, G. (1962). Investment in Human Capital: A Theoretical Analysis. The Journal of Political Economy, 70(5 (Part Two)), 3-49.

275-293.

White, P. (1999). Political Education in the Early Years: The Place of Civic Virtues. Oxford Review of Education, 25(1/2), 59-70. And Putnam, R. (1995). Tuning In, Tuning Out: The Strange Disappearance of Social Capital in America, 187. 59-70. And Putnam, R. (2014). Review of Putlinal Science and Putlina's Xiene and Review of America (1994). Making Demonary Work: Critical Traditions in Modern Italy. New Jersey: Princeton University Press. And Bourdeu, P. (1991). Second Lecture. The New Capital Introduction to a Japanese Reading of State Nobility, Putlat Tadap, 1/24), 643-640.

Background NIE Myth of Meritocracy

The other founding myth is meritocracy. Because of the relatively short history of Singapore and the presence of several ethnic communities, Singapore cannot rely on a 'golden past' – or Chan and Evers's 'regressive identity' – in searching for the myths of nationhood. **Instead they have to** look towards the future and the importance of economic achievements to articulate their conception of the nation.

The Government also adopted the principle of 'meritocracy' as a cornerstone of Singapore's development mission in general. This means giving equal treatment to all Singaporeans irrespective of their ethnic creed and treatment to all Singaporeans irrespective of their ethnic creed and one's vertical mobility would mostly depend on one's merit or qualifications. Consequently those with better education and better skills have a better edge than others. Although some form of limited 'affirmative action' programmes were extended to the Malays (who in the Constitution of Singapore, Article 152(2) were regarded as the indigenous people), by and large, all Singaporeans have to accept and live by the motto, "to each his merit". ²

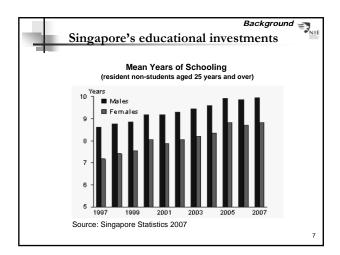
¹ Hill, M., & Lian, K. F. (1995). The Politics of nation building and citizenthip in Singapore. London: Routledge., p. 31 ²Muslish, H. (2004). Singapore's Quest for a National Identity: The Triumphs and Trials of Government Policies In A. Palic & C. K. Tong (Eds.), Imaging's Nation of London, Singapore: Eastern Universities Press., p. 59

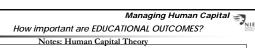
Background NIE Singapore's Economic Performance

Per Capita GDP at Current Market Prices

Year	Singapore\$	US\$		
1997	37,498	25,255		
1998	36,115	20,982		
1999	36,371	20,889		
2000	39,683	23,019		
2001	37,070	20,690		
2002	37,847	21,136		
2003	39,440	22,638		
2004	44,282	26,198		
2005	46,738	28,078		
2006	49,301	31,028		
2007	52,994	36,163		

Source: Singapore Statistics 2008





Mincer -- using decennial censuses of the US population (1939 & 1949) among other sources -- developed a theoretical model for examining the nature and cause

of inequality in personal incomes. Mincer argued that training and skill -human capital – had a significant impact on the differences of personal incomes.

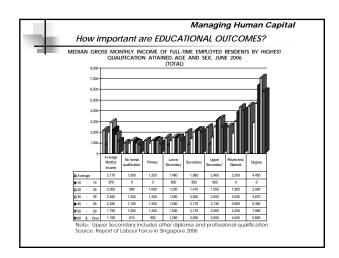
Mincer's model purported that:

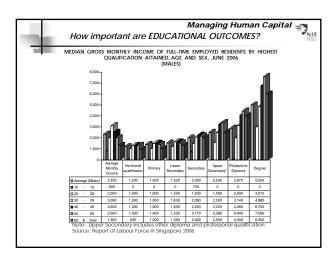
-"As more skills and experience are acquired with the passage of time, earnings rise" (p. 287)

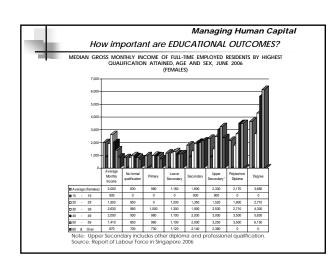
"Differences in training result in differences in levels of earnings among occupations...the differences are systematic: the higher the occupational rank, the higher the level of earnings"(p. 288)

"Later years aging often brings about a deterioration of productive performance and hence a decline in earnings" (p. 287)

Mincer, Jacob (Aug, 1958). Investment in Human Capital and Personal Income Distribution, The Journal of Politic Economy, 66(4): 281-302







Managing Human Capital Migration Transition

In the wider context of development, the transition from labor exports to labor imports is closely related to the pace of economic growth and the nature of structural change. It is possible only in economies where the structural transformation in the composition of output and employment facilitates a move from the extensive margin of labor absorption to the intensive margin of labor use. Obviously, labor exporting countries can be transformed into labor importing countries once they attain full employment. However, this is a necessary but not a sufficient condition. The reason is that technological choice, imports of goods and exports of capital are, to some extent, substitutes for imports of labor.1

Nayyar, D. (1994). International Labor Movements, Trade Flows and Migration Transitions LA Theoretical Perspective. Asian and Pacific Migration Journal, 3(1), 31-48.

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Managing Human Capital

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Greater cause of concern for Singapore: Loss of homegrown talent

Of greater concern to Singapore has been the loss of high quality manpower through the disproportionate emigration of the better educated Singaporeans. Data on the educational qualifications of GCC recipients in 1989 show that nearly one-third (31.4 percent) had tertiary qualifications while another 59 percent had secondary or post-secondary qualifications. In comparison, only 4 percent and 36 percent respectively of the resident population in 1990 had similar qualifications. Comparison with the resident population of working ages 15-59 improves the representation slightly at 5 percent and 45 percent respectively. The low quality of the indigenous labor force in terms of their educational qualifications has been identified as a serious constraint on future economic growth.¹

Yap, M. T. (1994). Brain Drain or Links to the World: Views on Emigrants from Singapore. Asian and Pacific Migration Journal, 3(2-3), 411-430.

Managing Human Capital Emigration and the crisis in Singapore

Singaporeans emigrate for economic as well as non-economic reasons. Economic factors such as low growth, high unemployment, low wages and economic uncertainty were the main reasons for emigration during the 1960s and the recession period of 1985-86. Non-economic factors were the main driving forces in emigration during the high growth years of the 1970s and 1980s...Regionalization activities during the 1990s also saw an increase in temporary outplacements of Singaporeans to facilitate the expansion of the country's 'external economic wing'.¹

¹Weng, T. H. (1998). The Regional Economic Crisis and Singapore: Implications for Labor Migration. Asian and Pacific Migration Journal, 7(2-3), 187-218.

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Managing Human Capital Steps taken to stem the tide of emigration

On the other hand, since the highlighting of the emigration issue by the former Prime Minister in 1989, several changes have been made to improve the quality of life and education in Singapore to stem the flow of emigration. These include the release of more land for the development of private residence, the liberalization of film censorship and introduction of more recreational activities, the development of more institutions of higher learning to cater to the ever rising demand for tertiary education, and modification of the streaming and second language policies in education.¹

¹ Yap, M. T. (1994). Brain Drain or Links to the World: Views on Emigrants from Singapore. Asian and Pacific Migration Journal, 3(2-3), 411-430.

Managing Human Capital Singapore's Second Wing

Back in 2002, there was a view that emigration makes one's national loyalty suspect, but an alternative view is that Singaporean emigrants can continue to think of Singapore as 'home' and 'nation', even as they form an 'external wing' for a Singapore characterized by high population density and land scarcity, and, more importantly, experiencing economic restructuring.¹

¹ Tan, E. S. (2005). Globalisation, Nation-Building and Emigration: The Singapore Case. In B. Lorente, N. Piper, H.-H. Shen & B. Yeoh (Eds.), Asian Migration: Sojourning, Displacement, Homeoming and Other Travels (pp. 87-98). Singapore: Asia Research Institute.

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Managing Human Capital Diaspora by Design

The Singapore vision of harnessing economic nationalism to the dynamics of globalization is predicated on cultivating a diasporic identity as a Singapore tribe which also reflects the characteristic of being 'New Asians'...able to combine flexibility and enterprise in responding to new opportunities, a strong ethnic component which can be harnessed for networking, and equally strong attachment to an imagined 'homeland' while being citizens constantly on the move. 'Diaspora by design' is thus a strategic tool in successful regionalization and nation-building, intended to bridge the gap between global and local imaginations, between cosmopolitanism and localism, and allowing individuals to successfully remain and strategically navigate inside and outside of both home country and host society simultaneously. ¹

¹Yeoh, B., & Willis, K. (2005). 'Singapore Unlimited'? Transnational Elites and Negotiations of Social Identity in the Regionalization Process. Asian and Pacific Migration Journal, 14(1), 71-96.

Challenges of the KBEs

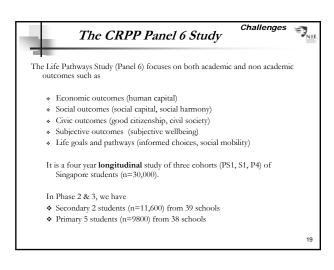
Burbules and Torres have explicitly identified the 21st century education problematic when they discuss globalization and the consequent paradigm shift in "educational aims that have more to do with flexibility and adaptability" rather than the standardization that characterized the earlier industrial phase and greater harmony among peoples and among nations. I Gopinathan & Sharpe recognise the implications of the irrepressible waves of globalisation and note concerns for Singapore's development and education policies. ²

¹Burbules, N., & Torres, C. (2000). Globalization and Education: An Introduction. In N. Burbules & C. Torres (Eds.), Globalization and Education: Critical Perspectives (pp. 1-26). New York: Routledge.

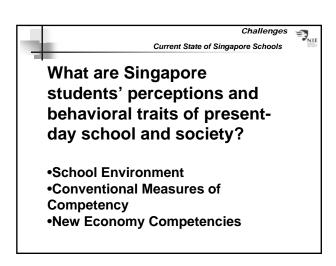
²Gopinathan, S., & Sharpe, L. (2004). New Bearings for Gizenship Education in Singapore. In W. O. Lee, D. Grossman, K. Kennedy & G. Fairbrother (Eds.), Gittyanship Education in Asia and the Pacific Concepts and Issues (pp. 119-136). Hong Kong: Comparative Education Research Centre.

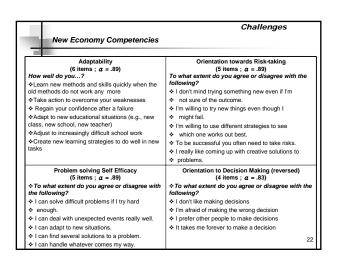
Challenges

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		Challenges
New Eco	nomy Competencies	s
	Interpersonal Problem-	
Interpersonal	Solving Skills	 Social & Leadership Skills
skills	 Group Engagement (in class) 	
	Orientation to Risk-	 Problem Solving Self
Inventive	Taking	Efficacy
Thinking	Adaptability	Orientation to Decision
		Making
Work-related	Orientation to Project Work	 Orientation to Competition
Skills		 Orientation to Learning
	Generic Agentic Skills	
Knowledge	Multi-literacy Skills	
Management	Interdisciplinary Work S	
Skills	Information Management	nt Skills
·	Time Management	
Self-Regulation	 Individual Engagement 	(in class)
	⇒ Effort Regulation	





	(Challenge
Conventional Measures and New I	Economy Competer	icies
-		
Correlations	English	Math
Interpersonal Skills		
Group Engagement	.12**	.08**
Team Work	.06	.02
Social & Leadership skills	.22**	.16**
Interpersonal problem-solving	.07**	.07**
Inventive Thinking		
Risk-taking	.11**	.08**
Problem solving efficacy	.15**	.17**
Adaptability	.10**	.11**
Decision Making	.05**	.02

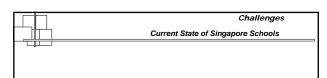
		Challenges
Conventional Meas	sures and New Economy Compete	encies
Correlations	English	Math
Work-related cum		
Life Long L LO	w correlations between	.06
Project Wo ac	ademic & new economic	02
Generic age	competencies	.08**
Orientation to Competiti	•	.04
Self Regulation	4	
Individual Engagement	.10**	.11**
Persistence	.16**	.15**
Time Management	.03	02
Knowledge Management	Skills	
Multi-literacies skills	.19**	.07
Interdisciplinary skills	.21**	.07**
Information Managemer	nt ,17**	.06



- student outcomes.
- Several implications
 - 1. Academic aptitude is not a pre-requisite for students to develop new economy talents.
 - 2. Innovative curriculum and pedagogies needed to prepare students for challenges in the 21st century economy.
 - 3. Assessment by high stakes exams is not sufficient to measure students' capabilities to be successful in the new workforce.

What Makes Education Valuable? Most Important Value.				
	Primary 4 (%)	Primary 5 (%)	Secondary 1 (%)	Secondary 2 (%)
Getting a high paying job	14.3	27.5	28.8	28.5
Doing well in exams*	41.1	20.0	22.8	20.4
Contributing to your community	3.1	4.7	3.8	4.4
Learning information about the future	3.3	3.3	3.6	3.3
Learning new things	11.3	13.6	13.8	15.9
Learning about yourself	1.1	1.4	2.7	2.5
Learning about nature	1.7	2.2	1.0	1.0
Spending time with friends	3.5	3.8	3.2	3.3
Learning to be a cultured person	.8	2.5	2.2	2.4
Being a person with good character	9.2	12.7	14.4	14.9
Being a good citizen	8.4	8.3	3.3	3.4
Total	100.0	100.0	100.0	100.0

• Drop in the importance of "Doing well in exams"; more for P5 and moderately for Sec2 • Economic values of education (Getting a high paying job) increased 2 times for P5



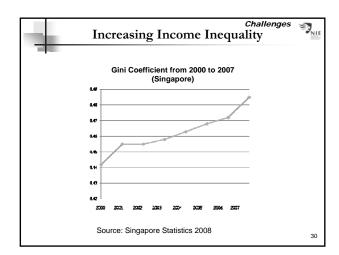
What is the value of education?

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Challenges Threats to Singapore's economic niche Income inequalities and cracks in social cohesion ■ Need to produce imaginative and creative students

■ KBEs and nurturing highly-skilled graduates



Towards creative & imaginative students

"Many more exciting things are happening in schools all over Singapore, but this is our fundamental approach to uplift all Singaporeans. Whichever school you go to, whatever your home background, we will help you to develop your talents to the full. The ladders are steep, but we will provide you many ladders to success and help you climb up as high as you can."

Lee, H. L. (2007). National Day Rally Speech of PM Lee Hsien Loong 19 August 2007 at the NUS University Cultural Centre (pp

KBE's & highly-skilled graduates

"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."

¹ Gopinathan, S. (2007). Globalisation, the Singapore developmental state and education policy: a thesis revisited. Globalisation, Societies and Education, 5(1), 53-70.

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Challenges

Policy & Practice Singapore's Responses

- Innovation and Creativity
- Critical Thinking
- Learning vs. Adaptation

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Policy & Practice Thinking Schools Learning Nation (TSLN)

"A nation's wealth in the 21st Century will depend on the capacity of its people to **learn**. Their imagination, their ability to seek out new technologies and ideas and to apply them in everything they do will be the key source of economic growth. Their collective capacity to learn will determine the well-being of a nation."

¹ Goh, C. T. (1997). Speech by PM Gob Chok Tong - "Shaping our Future: Thinking Schools, Learning Nation" Paper presented at the Singapore International Conference on Thinking at the Santee City Convention Centre., p. 1 _.

Policy & Practice Innovation & Creativity

"What is critical however is that we fire in our students a passion for learning, instead of studying for the sake of getting good grades in their examinations. I must say this passion is generally lacking among our students, including many among our most able. Their knowledge will be fragile, no matter how many 'A's they get, unless they have the desire and aptitude to continue discovering new knowledge well after they leave school." ¹

⁶ Goh, C. T. (1997). Speech by PM Gob Chok Tong - "Shaping our Future: Thinking Schools, Learning Nation" Paper presented at the Singapon International Conference on Thinking at the Santee City Convention Confer., p. 3

Policy & Practice Critical Thinking

Tan & Gopinathan suggest unequivocally that the path to "true innovation, creativity, experimentation and multiple opportunities in education" would be accomplished if and when the "state allows civil society to flourish and avoids politicizing dissent."

¹ Tan, J., & Gopinathan, S. (2000). Education Reform in Singapore: Towards Greater Creativity and Innovation? NIRA Review, 7(3), 5-10., p. 10.

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Policy & Practice Learning and Adaptation

Recognizing entrenched traditional mindsets inherent in the education system and the need for creativity and innovation, the education system itself must have the capacity to engage in learning which implies that "the organization's members are induced to question earlier beliefs about the appropriateness of ends of action, and to think about the selection of new ones, to revalue themselves." 1 The organizational learning required is not merely adaptation which is "muddling through"2 or "incrementalism" where subsequent policy decisions are carried out as a mechanical continuation of previous decisions."

¹ Haas, E. (1991). Collective Learning: Some Theoretical Speculations. In G. Breslauer & P. Tetlock (Eds.), Learning in US and Suntar Funging Policy fop. 62-29). San Francisco: Westerion.
² Haas, E. (1991). Collective Learning: Some Theoretical Speculations. In G. Breslauer & P. Tetlock (Eds.), Learning in US and Suntar Funging Policy fop. 62-29). San Francisco: Westerion.
³ Van Meter, C., & Van Horn, D. (1975). The Policy Implementation Process: A Conceptual Framework. Administration and Switty, 6(4), 445-488.

Policy & Practice Learning vs. Adaptation

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.1

Policy & Practice **Experimentally-Oriented Economy**

One type of society and economy that would be dominant in a 21st century globalized setting is what is referred to as an Experimentally Oriented Economy (EOE). In EOEs "full penetration of state space for optimal positioning by all agents is impossible at each point in time, and (because of learning) at each future point in time", which therefore presents a situation highlighting uncertainty and complexity as a feature of

tomorrow's society.1

Singapore's Consistent Response: Policy & Practice Selective Globalization

The city-state enjoys its status as one of the most globalized countries in the world in terms of migration, global finance and telecommunications, and yet regularly garners criticism from international human rights institutions for its insistence on practicing its own brand of politics, whereby certain civil liberties are curtailed in view of local multiethnic and multi-religious realities. The practice of selective globalization expresses the need to remain globally connected for the sake of nothing less than national survival, and the desire to retain certain notions of tradition and conservatism that protect specific dominant interests. 1

ng, T. (2006). Singapore: Globalizing on its own terms. Southeast Asian Affairs, 265-282

Policy & Practice Singapore's Challenge: Strong Nation-State and Open Global City

Conventional arguments for cultural and ideological protectionism may sit well with the character of nation-states, but are increasingly incongruent with the functions of global cities. And since a global city cannot be willed into being but becomes one only when others recognize it as such, all global cities require cultural legitimacy from the international community of transnational professionals, creative classes, and international opinion-shapers who have the power to confer it recognition...The fact that Singapore's survival as a nation-state depends on its status as a global city means that the government has little choice but to constantly shift gears between the national and the global when it comes to policymaking, thus compelling it to send mixed signals to this international community.