

## FACING the Future with Confidence -

### An Educational Perspective

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I am honoured and delighted to be invited to share some thoughts with you on the educational aspects of the 3<sup>rd</sup> Hitachi Young Leaders Initiative theme "Leading Dynamic Asia into the New Global Age".

Education must be of interest to all young participants here as you are in the midst of your tertiary studies. What is probably of greater significance and concern to you is how your education prepares you for your future roles as adult leaders and members of the Asian working community in a global age.

At an international conference in Hong Kong last year, I noted that most East Asian nations with the exception of Japan (which started reform early) borrowed or had imposed upon them during the period of colonisation, "western-type" models based on an industrial manufacturing model for their education systems – the curriculum, textbooks (often imported), examinations which led to higher education at the metropolitan centres, models of teacher training, school organisation, etc. These features were combined with some cultural attributes – a belief in the value of education, of merit in achievement, high levels of parental involvement, a common curriculum, frequent assessments to monitor standards, homework to ensure mastery of content, relatively high regard for teachers to produce education systems which are now admired by politicians and policymakers in developed countries.

East Asian education systems also emphasised values, especially values of social cohesion and produced disciplined and hardworking workers who contributed much to the rapid economic growth of East Asian countries over the past 25 years (the present economic crisis notwithstanding).

Yet in Asia, as in the West, educational reforms are being championed by almost every nation. What drives this and why is there a pressing need for these reforms?

The critical features that influence the reforms can probably be narrowed to rapid globalisation and the proliferation of technological advancements with accompanying socio-political and cultural changes. It is evident that the industrial manufacturing model for economic growth has given way to a knowledge-based economy where financial capital and labour are no longer enough and a shift of emphasis towards intellectual capital or knowledge is needed for wealth creation.

The Prime Minister of Singapore put it this way at the 7<sup>th</sup> International Thinking Conference in June 1997. Mr Goh Chok Tong said, "We have to prepare ourselves for a bracing future – a future of intense (global) competition and shifting competitive advantages, a future where technologies and concepts are replaced at an increasing pace and a future of changing values. Education and training (investment in human capital) are central to how nations will fare in the future."

How do we educate you for the future where there may be no predetermined sets of jobs? I note that there is a wide range of disciplines being pursued by our 24 young participants, from arts/social sciences and communication studies to science and engineering to law. Do you think that if you enter careers for which



you are being educated in, you will be using the same knowledge or doing your job without major changes for the next 40 or more years of your working life? Or do you believe you will change, adapt and embrace lifelong learning because every 10 years or thereabouts you are likely to be changing jobs or have to master new skills to stay relevant in the same job/career?

What knowledge, skills and values or attributes would you need in a world which requires talented and able individuals and teams?

I am sure you will not dispute the notion of lifelong learning, unlearning even and relearning but what is more important is that you must have the desire for lifelong learning in order to open up opportunities for your future and enhance workforce competitiveness and industrial/business relevance. Human capital (people) is the determining factor in knowledge-driven industries and hence what is needed is a high proportion of skilled, innovative, thinking, self-motivating people with a strong sense of social responsibility and moral integrity.

Where does your preparation for lifelong learning begin? You may say in the home and at school but you are all in tertiary institutions at this stage. How does tertiary education prepare you for your future?

First, the fundamentals obviously never change. If you intend to be a world class geneticist, molecular biologist, linguist, financial engineer, materials scientist, software developer, barrister, actuary, surgeon, etc. you need to master the basic or core knowledge (theory and practice) and understanding of the respective discipline/profession first. Secondly, we all know that it needs more than basic understanding and knowledge to be truly competent and current. One has to know how and where to apply the knowledge gained; to keep on learning, experimenting, reading, discussing and whatever it takes to stay relevant. Thirdly, tertiary education is the culminating stage of the pre-employment process to nurture the individual into a holistic person. In its totality, this means you have to graduate not only satisfying the cognitive domain, but also the physical, social, moral and aesthetic spheres as well. Leadership, process and interpersonal skills, moral integrity, character and team building, social responsibility and commitment to society, and interest in our physical well-being and the arts/sciences are integral to holistic education.

You can now understand the rationale for tertiary institutions providing you with numerous hands-on experiences either as core or enrichment courses e.g. independent study and research projects, work or research attachments to industry, community service, student exchanges abroad, mentoring and peer tutoring, field studies and camps/workshops on a variety of topics ranging from environmental issues to language and art.

This very forum and community service programme initiated by Hitachi is exemplary of what educators are trying to instil in students beyond the paper chase. The graduate would have been helped to gain a better understanding of Asian values and community spirit and greater cross-cultural understanding and harmony.

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# Shaping the Future with Confidence An Educational Perspective

As an illustration of the role Universities can play in preparing graduates for the new global age, permit me to cite a Singapore perspective. In 1998, the Deputy Prime Minister, Dr Tony Tan Keng Yam, spelt out three initiatives that Singapore Universities ought to be concerned with:

1. Fostering a research culture by expanding postgraduate education.

This not only prepares more manpower for the industries but increases the value addedness of the individual in an evolving technology-oriented world. Analytical, deductive, process, higher order thinking skills and innovation/creativity are developed in a research culture.

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2. Reviewing the undergraduate curriculum in order to bring it up-to-date and to put more emphasis on thinking skills and fostering of creativity.

This involves reduction in curriculum content which retains core concepts and knowledge while freeing curriculum time to emphasise skills critical to the undergraduate's future – critical and higher order thinking, creativity, the ability and desire to learn independently and continuously, effective communication, integration of IT in learning and teaching, interpersonal attributes, perseverance, etc.

3. Providing a wider range of educational opportunities at tertiary level.

Criteria for admission to Universities are being reviewed to move away from a sole reliance on GCE 'A' level examinations and towards a holistic evaluation of a person's potential to realise the benefits of university education.

Obviously, if the desired outcomes of tertiary education are to be fulfilled, there must be effective measures to determine these outcomes. The modes of assessment are crucial and have to take into account not only standardised tests but also project work, viva voce, open book and open ended examinations, portfolios, practical assignments, class discussions and tutorials, i.e. multiple modes of assessment.

Tertiary institutions must produce graduates who are science and technology savvy, have a greater propensity for risk taking, can think on their feet, understand there are no textbook solutions to real-life problems, expect jobs to be created that we have not heard of, be imaginative but realistic i.e. having one foot in the air and one on the ground, global in outlook but have ties to their homeland, risk takers but based on sound rational principles and weighed options, and can create resources, not wait for them. In other words, the entrepreneurial spirit is to be fostered.

At the same time, you are mature enough to know you are the masters of your own destiny and that no one owes you a living. How are you accepting the challenge to face uncertainty and to take more responsibility for your own learning throughout life and preparing for the opportunities that will present themselves to you just a millennium (and miniscule moment) away!