

In the first of a four-part series on the changing role of universities, Education Minister Chan Chun Sing talks to Senior Education Correspondent Sandra Davie about how we need to think differently about higher education.

# OUT: Graduation ceremonies, degree scrolls IN: Just-in-time learning, skills certificates

## Students must acquire the mindset to learn, unlearn and relearn, says minister

Education Minister Chan Chun Sing will be remembered for his address to a class of university graduates last year where he told them that the grand ceremonies that universities hold for those completing their degrees are likely to become a relic of the past.

He also told the students that their degree scrolls, which indicate the specific degree they undertook and the date of completion, will also become outdated in the future.

Explaining his remarks to The Straits Times, he stressed that the rapid pace of change under way will push students to keep updating their knowledge and building new skills. Hence, once they enrol in an institution, they will never "graduate" just once, but will go on to have a lifelong relationship with their alma mater.

He said universities will offer more flexibility and grant their students unlimited credits, allowing them to take as many modules as they want throughout their lifetime.

Students can take up courses at any point of their working life, when they need to acquire new skills and knowledge. And they would study alongside students of all ages, using many modes, be they offline or online, on campus or at the workplace.

He added: "In the future, it will also be unthinkable that students would graduate with a Degree in Engineering or a Degree in Business. These subjects will not be taken in isolation."

What will be of value will be relevant skills and knowledge to solve real problems rather than "artificial silos" of content.

In his wide-ranging interview on education and institutions of higher learning, which he kept referring to as "institutions of continuous learning" or ICLs, he spoke about what else will change in higher education.

**Q Why use the term ICLs instead of IHLs?**

**A** The use of terms such as Institutes of "Higher" Learning or "higher education sector" is not inherently intuitive. After all, learning is learning. It is arguably ambiguous to classify learning as "higher" or "lower". I prefer to call them Institutions of Continuous Learning and these include the universities, polytechnics, the Institute of Technical Education and all other institutions where you go to further your education.

**Q Why do you say in the near future, students may enrol in but never graduate from the institutions that they enrol in?**

**A** The pace of change has accelerated, just look at product cycles of our phone. Every year, there's a new model with even more advanced features.

Similarly, many of the jobs that are emerging may not yet exist in the lexicon of today's world. For ex-



The rapid pace of change will push students to keep updating their knowledge and universities will grant them unlimited credits to take as many modules as they want throughout their life, says Education Minister Chan. ST PHOTO: GAVIN FOO

ample, not many years ago, we would not have heard of UX design (User Experience design). If you walk down the street from here (Ministry of Education building at Buona Vista) to One-North, you'll find all kinds of jobs that didn't exist just a few years ago. This requires students to keep going back to ICLs to upgrade their knowledge and skills. And we need flexibility in our system to allow students to take up different modules and extend their studies if necessary.

**Q How do we get our students to see the need for continual learning and not just frontload their education before they go out to work?**

**A** There needs to be a mindset shift. Our students must move away from frontloading their education. They should build a strong foundation and then use continuous learning to build on that further.

Most importantly, they must acquire the ability and mindset to learn, unlearn, and relearn.

The universities are moving towards a modular, "building block" system where students can take different modules according to their interests, or based on the shifting demands in the market.

Say you have students who want to try their hand at entrepreneurship. With this system, the students can go off and develop their entrepreneurial ventures and come back and plug into the sys-

## About Mr Chan Chun Sing

Mr Chan Chun Sing was appointed Singapore's Minister for Education in May 2021 and he has been Minister-in-charge of the Public Service since May 2018.

He brings his experience from several ministries and the union to education.

Before taking up the education portfolio, he drove Singapore's economic and industrial development as Minister for Trade and Industry (MTI) from 2018 to 2021.

At MTI, he ratified the Regional Comprehensive Economic Partnership agreement, as well as deepened international cooperation on the digital economy.

From 2015 to 2021, he also served as deputy chairman of the People's Association where he oversaw national efforts to foster social cohesion.

As secretary-general of the National Trades Union Congress (NTUC) from 2015 to 2018, he expanded the Labour Movement network to represent all working people in Singapore.

Prior to NTUC, he served as Minister for Social and Family Development (2013-2015) and Acting Minister for Community Development, Youth and Sports (2011-12). He was also Second Minister for Defence (2013-15) and Minister of State for Information, Communications and the Arts (2011-12).

Serving with the Singapore Armed Forces from 1987 to 2011, Mr Chan held various appointments including Chief of Army.

An SAF (Overseas) and President's Scholarship holder, he graduated with First Class Honours in Economics from Christ's College, Cambridge University, United Kingdom.

He was also awarded the 1998 Distinguished Master Strategist Award by the US Army Command and General Staff College. In 2005, he completed the Sloan Fellows Programme at the Massachusetts Institute of Technology under the Lee Kuan Yew Scholarship.

Born in 1969, Mr Chan is married with three children and enjoys reading and jogging.

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tem at any point in time in the future. They would have gained valuable skills and experience and be clearer about what modules they want to take. This also helps the institutions be more targeted in what they deliver.

Not everyone has to fit into the traditional route or pathway. I am prepared to have students chart their own paths and enable them to discover new breakthroughs.

**Q What about planning for university places using CPR or cohort participation rate? Will that too become irrelevant?**

**A** We need to move beyond what we call the CPR or cohort participation rate. If we have continuous learning for life, then we should have a lifetime cohort participation rate. And it would not matter whether you go for a degree, diploma or some professional certificate, or at what age you do so.

We need to build a system that can support our students and workers to do just-in-time learning, where learning is available on-demand and can be accessed when the learner needs it. Young people will keep upgrading, without calling it a degree necessarily. So this whole concept of CPR is increasingly less relevant to our needs as a society going forward.

In fact, I'm seeing more and more Singaporeans who are not interested in that full degree or diploma programme. They are very targeted, very selective in going after those modules that give them an edge in the job market.

**Q There is much more diversity and more pathways in our education system now, including our higher education system. Can we expect more diverse pathways and institutions going forward?**

**A** Yes, our schools, post-secondary and tertiary institutions offer many more choices. At the secondary level, you have the Singapore Sports School, School of the Arts, and the NUS High School of Math and Science. You also have different programmes, from the International Baccalaureate to the Integrated Programme, GCE O levels and GCE A levels. And at all levels. I think we will increasingly have more diverse options for our people because we are no longer adopting a one-size-fits-all approach. In

fact, we are in the process of mass customising to bring out the best in everyone.

But I think our mission and our sense is that our success is not defined by some metrics or numbers, our success is whether each and every child can fulfil his or her potential.

Many of the leading edge frontier companies have their own training institutions and we should not shy away from partnering with them, especially when it comes to continuing education, because, increasingly, this thing about a degree and a diploma is just one frame of thinking about higher education. It is really the skills, the currency of knowledge that is more important.

Why shouldn't we work with the Googles of the world to learn the latest things that they are doing? They may not offer a full degree programme or a full diploma programme, but they certainly offer valuable modules that our adult learners want to take up.

**Q What about the role of universities in promoting social mobility?**

**A** All institutions and schools, even pre-schools, play an important role - not just universities.

If you are born a Singaporean, so long as you are capable, you're committed and you're prepared to work, you will have every chance of success, regardless of your starting point.

I come from a single-parent family and was able to progress partly because of the opportunities I had in the education system. Being the Minister for Education today, I want to be able to say to every student that even if you come from a family like mine, or a family with much more challenging circumstances, you can also have the chance to succeed in Singapore. That is our commitment to our people.

We need to make sure that we have multiple pathways of success for different children with different abilities, and instill confidence in themselves, confidence in their future, and the confidence to contribute to our society.

**Q What advice would you give to a young person heading to university?**

**A** I am not sure my university experience would be relevant to youth today. But one of the things I did while in university was to minimise the amount of time I spent on my degree studies and maximise the amount of time that I spent on subjects beyond that. I studied economics in Cambridge, but I read up on biology, behavioural science, history and many other things that were not directly related to the degree courses that I was taking. I wanted that span of knowledge and inquiry and I wanted new tools to help me think about the issues of the world.

So my advice to the students that I meet is always this: that it is one thing to get your diploma and degree and pass the exam to meet and fulfil the requirements, that in itself is necessary and good, but don't be constrained by that. We must develop a lifelong passion of inquiry, to learn things beyond what is covered in exams. And that really enriches your perspective and helps you to have a much richer understanding of the subjects that you are studying.

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