

TRANSCRIPT OF SPEECH BY MR TEO CHEE HEAN, DEPUTY PRIME MINISTER AND CO-ORDINATING MINISTER FOR NATIONAL SECURITY AT SINGAPORE POLYTECHNIC'S 58th GRADUATION CEREMONY 2018 ON 2 MAY 2018

“Continuing Education for a VUCA World”

Good morning. Thank you Singapore Polytechnic for inviting me to join you on this special occasion.

Today marks a significant milestone for the 343 graduands from the School of Business and the School of Electrical and Electronic Engineering, as well as the winners of the Institutional Medals. My heartiest congratulations to all of you.

I would also like to acknowledge those who have supported you in this journey - your faculty members, families and friends, many of whom are here today.

Contributions of Singapore Polytechnic

Congratulations as well to Singapore Polytechnic on reaching the milestone this morning of having more than 200,000 graduates. This reflects SP's significant contribution to Singapore's development.

SP was set up in 1954 during the post-Second World War period, when there was a critical need for technical education to support our early industrialisation efforts. It was also the first technical institution in Southeast Asia, offering diploma courses from engineering to accountancy. SP also started degree programmes in engineering and architecture, which were subsequently transferred in the 1960s to the Singapore University, one of the predecessors of the National University of Singapore.

SP has kept abreast of the latest technology and the needs of our economy. Many of our graduands this year have taken courses in completely new areas. Areas that did not exist when they were born twenty years ago, or even ten years ago, such as Cybersecurity, Games design and Development and Integrated Events & Project Management.

Even in courses such as Electrical Engineering, Mechanical Engineering and Marine Engineering that sound the same as when SP was founded, these courses have been continually reviewed, and had their content totally revamped to ensure that they are relevant to our economy, and prepare our students well for the future. These efforts include collaborations with industry partners to develop state-of-the-art research and development facilities within campus, and internships for students locally and overseas.

Indeed, there are now so many more opportunities for our students. Our Polytechnic model of education where students graduate with industry relevant, work ready skills, with a solid foundation in the basics for life-long learning has been well-received by students and employers, and recognised as filling a key need for many countries. Our Polytechnic sector has therefore grown over the years to the five Polytechnics that we have today, which graduate more than 24,000 students per year.

More than 45% of each birth cohort can now benefit from full-time diploma programmes in Singapore compared to only 8% in the 1980s. This makes a real difference to our students, our economy and to prospects of Singaporeans, individually and as a country, collectively. Currently, almost all our Polytechnic students have a period of internship in their programmes, and nearly half, about 45 %, of graduands have the opportunity to have a stint overseas.

The pathways for polytechnic admission have also become more diverse. This is part of the total approach in our education system where there are always ladders and bridges for students to progress in their education, and open up new career opportunities.

Students who do well at ITE in their NITEC or Higher NITEC can progress to do their Polytechnic diplomas and about 1 in 4 do so today.

In 2013, SP took in its first batch of students through the Polytechnic Foundation Programme. Apart from the “O” Level route, this offers top-performing Secondary Four Normal (Academic) students the opportunity to pursue polytechnic education. From next year, this programme will be expanding to benefit up to 15% of students from the Sec 4 N(A) cohort compared to 12% previously. The Polytechnic Early Admissions Exercise was also introduced in 2016 to broaden selection, where up to 15% of each polytechnic intake are chosen based on their course-specific aptitude and interests.

Our Polytechnics have helped to ensure that we have a healthy pool of highly skilled professional men and women for our workforce. Many graduates have become industry captains, scientists, professionals, entrepreneurs and architects. Each one has made a difference to Singapore. Several alumni are now serving on your Board of Governors and they are good role models for our students.

Operating in a VUCA World

Our operating environment, for you as students and graduates, for everyone in the workforce and for our country, is increasingly volatile, uncertain, complex

and ambiguous (or “VUCA”). Rapid technological breakthroughs are fundamentally changing the nature of globalisation and our economy, the work that we do and the skills that are required. There are two key attributes that our workforce will need – (i) life-long learning to develop deep skills, and (ii) an entrepreneurial mind-set that can help you thrive in a competitive global business environment. Let me explain why.

When I was born in 1954, the same year as Singapore Polytechnic, the life expectancy of a Singaporean then was about 60 years. Some of us already have extra bonus years in our lives. As we live longer, and remain in good health – intellectually, mentally and physically, well into our 60s and 70s, there are more opportunities to stay active in the economy. And many Singaporeans want to continue working.

Therefore, as technology progresses further, the concept of lifetime employment is no longer as relevant today. As companies restructure, merge or adopt new technologies, we must keep on learning.

It is the next frontier in education. We have been successful in achieving mass primary education, mass secondary education and mass tertiary education for all our students. The next frontier for every country in the world is to find the right model for mass continuing education – lifelong learning. We must continue on this journey.

The second issue is entrepreneurial skills and why are they important. You have an education system that provides you the ladders and bridges for many opportunities to progress in our educational institutions. But if you only depend on ladders and bridges, or escalators to get you to the next level, then by definition, you can only go where many other people have gone before.

But if you want to go beyond, then you need to learn how to cut your own path as you move forward. You need to learn to take risks and be prepared to learn both from success and failure. As individuals or for us as a country, we have to maintain our entrepreneurial spirit and be able to go where we have not gone before. And not to be too critical of ourselves or others, but learn from others and keep on progressing. These are two key attributes that Singapore and our workforce will need for our future, and Singapore Polytechnic has been preparing you well for these.

Life-Long Learning and Developing Deep Skills

First, lifelong learning opens up more opportunities for our students as they develop deep skills to stay relevant and productive. We have made significant investments in every Singaporean, and empowered everyone to take charge of your lifelong learning journey.

At the national level, with SkillsFuture, Singaporeans have opportunities to develop their potential throughout life, regardless of their starting points, regardless of their age. More than 23,000 individuals took up life-long learning programmes at our polytechnics last year. This number is large, but it needs to go up further.

We will continue to strengthen partnerships to develop continuing education and training courses that meet industry needs. For instance, our universities, polytechnics and Institute of Technical Education have teamed up to develop the “SkillsFuture Series” of courses to equip working adults with deep skills in eight priority and emerging areas such as data analytics, digital media, urban solutions and advanced manufacturing.¹

At the institutional level, our tertiary institutions will continue to support you in your lifelong learning journey, by providing industry-relevant opportunities to upskill and reskill. Singapore Polytechnic alone has over 300 continuing education and training CET courses to choose from. Courses will also be more modular to help our workforce keep up with the rapidly changing operating environment and enable more Singaporeans to achieve their career aspirations.

Singapore Polytechnic is also coordinating training efforts for the Architecture, Building & Construction, Energy and Chemicals, Food Manufacturing, Human Resource and Maritime sectors. This will help students not just from SP, but also those in other institutions. Students can look forward to more industry-relevant curricula as well as more experiential learning opportunities such as through the SkillsFuture Earn and Learn Programmes.

Developing the Entrepreneurial Spirit

Second, our workforce and startups have to be more entrepreneurial and can seize the opportunities in our growth markets of ASEAN, India and China. Our entrepreneurs can work with global businesses to raise technology and innovation levels.

Our polytechnics have been active in recent years to foster an entrepreneurial spirit, mentoring and guiding students keen to start their own ventures. I am happy that SP has recently set up an entrepreneurship centre, known as SPiNOFF, where students can solve real-world problems under the mentorship of industry experts.

¹ The 8 priority areas are: (1) Data Analytics led by NUS, (2) Finance led by SMU, (3) Tech-enabled services led by Republic Polytechnic and the S’pore University of Social Sciences, (4) Digital Media led by Nanyang Polytechnic, (5) Cybersecurity led by Temasek Polytechnic and S’pore University of Technology and Design, (6) Entrepreneurship led by Ngee Ann Polytechnic, (7) Advanced Manufacturing led by Singapore Polytechnic and NTU, and (8) Urban Solutions led by S’pore Institute of Technology and ITE.

Three Financial Technology companies have co-located on SP's campus, where they will mentor student start-ups, provide internship to students and co-develop entrepreneurship-related curriculum. Such electives and courses will allow full-time students to learn together with adult learners, and provide opportunities to exchange ideas and grow more start-ups. Even if you are not working in a start-up, how do you create value for your company? You do not simply create value by doing what was done before. You have the opportunity to create new value by opening new markets and finding new opportunities.

SP's 200,000th graduand, Lee Zheng De, is one of such entrepreneurs with a global outlook. He first enrolled in SP's Polytechnic Foundation Programme, and then its Diploma in Engineering with Business. Zheng De and his brother Zheng Dao, who also graduated from SP, have set up an online travel planner, Packdat.com, to help group travellers. They persevered although several of their initial ventures were less than successful. Today, Packdat.com has helped to bring together over 10,000 itineraries for 16 countries across Asia. Many graduands and recipients of the Institutional Medals are also developing startups - in social services, food manufacturing, renewables and electronics. I wish all our young entrepreneurs success as you pursue your passion. Learn from both your failures and your successes.

Conclusion

With an entrepreneurial mind-set, you can take on life's challenges, thrive in a volatile, uncertain, complex and ambiguous world, and contribute to Singapore and our society.

While you have acquired useful skills at Singapore Polytechnic, I would encourage all of you to embrace lifelong learning and take advantage of the continuing education courses by SP and other institutions. Make use of the ladders and bridges that you have. But if you want to climb further and beyond, you have to cut your own path and find your own way forward. That is also a useful skill you learn in Singapore Polytechnic and our other educational institutions.

Once again, congratulations to all of you on your graduation, and to Singapore Polytechnic on reaching the milestone of producing 200,000 graduates. I wish all of you every success in your endeavours. Thank you.