

# S'pore ends gold drought at Maths Olympiad

By LIN ZHAOWEI

IT TOOK him three tries, but Lim Jeck finally won a gold medal at the International Mathematical Olympiad this year.

The determined 16-year-old and his five teammates have not only succeeded in ending Singapore's 14-year gold drought, but also taken home four of the coveted prizes.

And they achieved the best-ever showing for the national team, coming in third out of 101 countries.

To top off his personal triumph, Jeck emerged as the second-highest scorer out of 564 competitors in the prestigious week-long competition in Amsterdam, which ended on Sunday.

Jeck - who won a silver in last year's competition and a bronze the year before - said he did not expect a gold as he found the questions "quite difficult".

"But my previous experience in the Olympiad has definitely helped, as I was

more mentally prepared this time," said the Year 4 student from the National University of Singapore (NUS) High School of Mathematics and Science.

The other three gold medallists were 17-year-old Raffles Institution students Joseph Kuan and Ding Yue, and 18-year-old Ang Jie Jun from Anglo-Chinese School (Independent). NUS High's Ang Yan Sheng, 17, took a silver, while Raffles Institution's Ryan Kor, 17, received a bronze.

During the competition - which is open to pre-university students aged under 20 - each competitor has nine hours to answer six questions covering advanced maths topics such as number theory, geometry and combinatorics.

Those whose scores are in the top 8 per cent receive gold medals. The teams' rankings are based on the number of medals each team wins.

China emerged first this year, followed by the United States. The top scorer was



NUS High student Lim Jeck (left), 16, won a gold medal and came in second overall, while schoolmate Ang Yan Sheng (far left), 17, won a silver medal and came in 83rd overall.

ST PHOTO: KEVIN LIM

performed to the best of their ability this year.

He said they had done a two-week residential stint at NUS High in the run-up to the contest, which probably helped to sharpen their focus.

Gold medallist Jie Jun, who also took part in last year's Olympiad, said that the stint allowed the team members to get to know one another better.

Jeck, who is young enough to take part in the next two Olympiads, said his performance has given him greater self-confidence.

Asked if he will take part again next year, he gave a firm "yes".

His target? Another gold, naturally.

Germany's Lisa Sauermann, 18. The Singapore delegation was led by Associate Professor Wong Yan Loi from

the department of mathematics at NUS. Professor Wong, who has led the team for the past four years, said the students

## THE ST INTERVIEW

# Jobs aplenty, but are we happy?

NTU economist is keen to measure level of life satisfaction in S'pore



By TAN HUI YEE  
CORRESPONDENT

DON'T worry, be happy, as the song goes, but as May's General Election showed, Singaporeans do worry, about everything from immigration to crowded trains. They have also increasingly questioned the costs of economic growth.

Enter Nanyang Technological University (NTU) economist Nattavudh Powdthavee, who has become something of a happiness expert over the past 10 years.

His use of the economist's tools of data gathering and number crunching allows him to quantify that elusive concept of happiness and identify just what factors in life contribute to it.

And the 33-year-old reckons the time is ripe for Singaporeans to come under this particular microscope.

He says the economy has developed to a stage where people think they can "ease the foot off the pedal a bit and look after (themselves) in other areas".

At first glance it would seem a no-brainer: Jobs are plentiful, increasing national wealth has delivered benefits in everything from education to housing, infrastructure, health services and so on.

Yet he is unsure if Singaporeans are indeed happier in times of economic growth. Surveys in the West show that happiness levels have "remained stagnant" despite constant economic expansion since World War II.

The question is fast moving from the fringes of social policy to the centre. In May, for example, the Organisation for Economic Cooperation and Development - normally a stickler for hard economic indicators - launched a "happiness index" of sorts that looks into general satisfaction, security and work-life balance.

For economists like Dr Powdthavee, happiness is not some nebulous concept, but something that can be quantified through detailed surveys that track people's life satisfaction over time.

There are well-established methodologies to do this, he notes, where respondents are asked at various stages in their life - through marriage, divorce, parenthood and bereavement - to rate their life satisfaction on a scale of one to seven.

The numbers are then analysed to measure the impact of events like divorce or bereavement as well as various public policies on a person's level of happiness.

Finding the key to happiness need not be expensive, he stresses. "Singapore conducts surveys all the time. They go to households and ask about their income. They can add one more question in these surveys (about how happy they are)."

The findings should be "freely available" and "built into political discourse" so that people are aware about what makes them happier, and what doesn't, he suggests.

His past studies show that happiness research often ends up debunking some long-held assumptions.

The economist, who joined NTU in January after spending 18 years studying and teaching in Britain, found that people whose loved ones die take on average two years to revert to being just as happy as they were before their loss.

He analysed British data with Warwick University economist Andrew Oswald in 2008 and found that someone experiencing the death of a partner would require on average the equivalent of £312,000



Nanyang Technological University economist Nattavudh Powdthavee, 33, says happiness is not some nebulous concept, but something that can be quantified through detailed surveys - and notes that people are not necessarily happier in times of economic growth. ST PHOTO: SAM CHIN

(S\$615,400) of additional income in the first year after the loss to feel just as happy as he was before.

The quantification raised eyebrows, but he points out that the £312,000 figure far outweighs the compensation that British courts often award for deaths. The figure shows that losing a loved one can be devastating, even if it lasts for just a few years.

In 2009, he waded into a storm of controversy again when his piece discussing existing research that children do not make people happier was picked up by British media.

Generally, people become happier while expecting their child, but things go downhill in the first year after the child is born and their happiness levels never quite recover to their pre-parenthood days until the child is about five years old.

The piece earned him a torrent of abuse, but he stands by it. The research is robust, he says. "When we ask about their happiness, we do not ask leading questions. We do not ask, 'Do children

make you happy?' Most people say 'yes' to that. Instead, we ask, 'How happy are you on a scale of one to seven?' We ask you that before you have your children, and we ask you after you have your children.

"Bringing up children can be very hard work. There are good times, there can also be bad times. That's not surprising. What's surprising is that we tend to overestimate the positive impact of children on day-to-day pleasure."

He says it is the "focusing illusion" - how people tend to "exaggerate the effect of whatever they're thinking about, when (they) are thinking about it" - that makes them think they cannot get over losing a partner or that children make them happy.

This means that if they are asked, 'Do children make you happy?', they tend to conjure up blissful images of David or Sarah running through a backyard, smiling for the first time, and say 'yes'. But ask them, 'How happy are you?', and the response will tend to be more neutral.

Dr Powdthavee, who is engaged,

stresses he is by no means asking people to stop having children. "Kids make your life meaningful even though they don't make you happy," he says with a laugh.

Happiness, in that sense, is overrated. It should not be the means by which people - and governments - judge all their decisions. Doing so might open it to abuse by rogue governments, which might resort to short-term policies to "make you happy today" at the cost of future well-being.

But happiness research does have practical implications in that it helps people decide what kind of trade-offs they want to make in their lives.

Commuting, for example, is an activity that people never mentally adapt to, unlike bereavement.

"If you commute the same way for 10 years, you don't adapt to it; you're just unhappy all the way through," says Dr Powdthavee. "Commuting is that kind of activity that requires your attention all the time. You think, 'Oh no, I am standing on this bus, it smells, this person's sweaty', every single day."

## Finding the worth of love

THAI economist Nattavudh Powdthavee, 33, is a Nanyang Technological University assistant professor noted for his work on the economics of happiness.

He has conducted studies that found that the level of happiness that marriages bring is worth £200,000 (S\$394,400) in their first year, and it takes on average two years for a person who has lost a loved one to regain the same level of happiness as before.

He wrote *The Happiness Equation: The Surprising Economics Of Our Most Valuable Asset* (2010); is co-founding editor of New Zealand-based *The International Journal of Wellbeing*; and is a research fellow at the German labour research institute IZA.

He earned his bachelor's in economics and management at London's Brunel University and a master's and doctorate at Warwick University.

He was a lecturer at York University before he relocated to Singapore in January to be closer to his Thailand-based fiancée.

But if people are asked to move to new, higher-paying jobs that would require a longer commute to work, most tend to say 'yes' if the pay hike is high enough.

"How much is high enough? We calculated that high enough means these people needed to be compensated a lot more than what they accepted in terms of the real job."

All around the world, he notes, most people tend to overestimate what money can bring to them in terms of happiness. But here is the clincher: Money can buy happiness, but only if people know how to spend it wisely.

This means spending it on experiences, rather than accumulating goods merely to signify status or privilege, such as branded bags or cars.

"If you use money to buy your friends gifts or use it to fund a day out doing something fun, that could have a much greater impact on your happiness."

Hence, he suggests the Singapore Government could make its people happier by encouraging better work-life balance and creating more experience-based activities.

Plugging into social life has great pay-offs, as his research shows.

Someone who is single would need to earn on average £200,000 more than his current annual income to achieve the same level of happiness as his counterpart enjoying his first year of marriage.

And a person who keeps to himself needs to earn on average £120,000 more a year to achieve the same level of satisfaction as someone who talks to his neighbours every day.

How exactly these equations might look like in Singapore is anybody's guess without a full-fledged study on the subject.

But increasingly, many societies around the world are starting to realise that happiness matters just as much as other indicators of progress. And Singapore might want to keep in step, says Dr Powdthavee.

"Happier people live longer. They're much healthier. They are likely to have a good social life in the future. And they tend to stay married for longer."

"But I guess living longer says it all."

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## Why nobody's happier when everyone's richer

■ What are some of the most surprising findings about happiness?

A: The first and very famous one actually came from American Richard Easterlin, a professor of economics at the University of Southern California. He found that richer people are happier than poorer people. However, income growth increases the happiness of no one. It's a paradox: If rich people are happier than poorer people, how come when everybody becomes richer over time, happiness doesn't rise with it?

There are many explanations for that, one of which is that people care about relative status. I'm sure that people in Singapore as well as everyone else in the world do. But there's only so much status to go around. With every one winner, there's always one loser. So aggregate happiness doesn't increase with it.

■ Where else can we see this phenomenon?

A: Suppose you bought a car, a very nice Volkswagen. Then the next day, your neighbour buys a Ferrari. You were very happy the day before, but you are no longer now. In traditional economics, it shouldn't matter what other people do, but in reality we do care.

Another good example is in the workplace: Why is it that people refuse to leave early if their colleagues haven't left yet? We know that if we leave earlier than the other person, we will probably lose in the relative income hierarchy. And because we care about that, increasing income for all doesn't really lead to increasing happiness.

■ How do you measure and quantify happiness?

A: We ask you how happy you are on a scale of one to seven. This can be done through self-completed surveys because if people are interviewed, they want to please the interviewer, they want to say things that don't make them look so bad.

There are many ways to circumvent biases - now there are things measuring hypertension, blood pressure, cortisol or "stress hormone" levels, which are much more objective but correlate very well with subjective happiness. These are good physiological indicators of how well we are. We know that being healthy has a huge impact on your well-being. When you feel that you are healthy, you tend to report very high happiness levels.

But health is a very broad thing. We tend to think in terms of physical health, but happiness is mental health.