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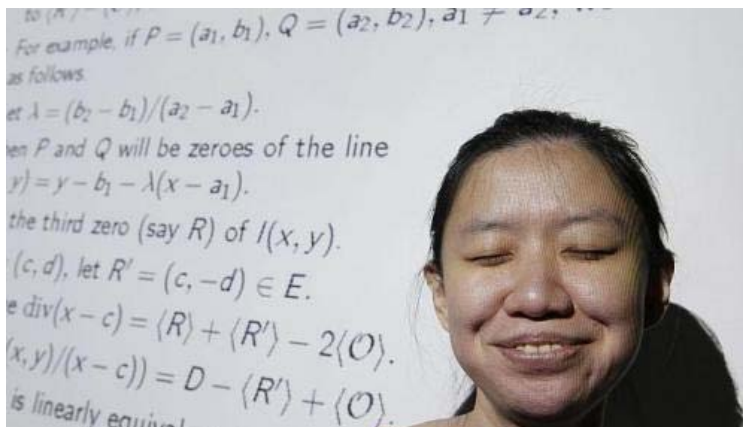
IN CASE YOU MISSED IT

A beautiful mind

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Dr Yeo Sze Ling's grit moved Prime Minister Lee Hsien Loong to cite her as an inspiration in his National Day Rally speech. -- ST PHOTO: MARK CHEONG

By Kezia Toh

As a young girl, Dr Yeo Sze Ling fell in love with mathematics, solving maths problems like little puzzles in her head.

The fact that she had glaucoma and lost her sight at age four did not stop her from pursuing her love for the subject, winning an A*Star scholarship in 2002 to do her PhD in maths.

Her grit earned her a mention in Prime Minister Lee Hsien Loong's National Day Rally speech last week.

Dr Yeo, 35, now a research scientist at A*Star, spends her days at its infocomm security department doing cryptography, a field which protects data as it transfers from one computer system to another.

Her dexterity with numbers has won her praise from her bosses, who describe her as someone with a "resilient spirit, perseverance and willingness to help".

Says Dr Tan Geok Leng, executive director of the Institute for Infocomm Research at A*Star: "She has a finely honed ability to mentally manipulate difficult notations found in modern mathematics papers and has been indispensable due to her



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deep understanding and research of complex mathematics problems."

Dr Yeo's sight started to blur when she was a preschooler at a PAP Community Foundation kindergarten. She could not see what was being written on the board unless the teacher wrote "very large and bold" letters.

With a wry smile lighting her lips, she adds: "In that hazy four-year-old memory, I remember my mother being very distraught, taking me from doctor to doctor, trying to find a cure."

It was an ordeal her mother Tung

Poh Mui, 65, a hawker assistant who is now retired, remembers well. As her daughter always clamoured to be carried, she did not notice the worsening vision until she noticed her child's writing did not stay between the lines in her exercise books.

"I was very sad when she became blind. I felt she could not live as well as other people," she says in Mandarin.

As Dr Yeo's sight ebbed, Madam Tung transferred her at age seven to the School for the Visually Handicapped, now known as Lighthouse School, where she took her PSLE and scored 222 points.

Maths was a source of solace during her schooldays and working through puzzles kept her occupied in lieu of options such as watching TV, Dr Yeo says candidly.

Meanwhile, leaving the house posed a challenge. She has taken public transport independently since her schooldays at Bedok South Secondary and later Serangoon Junior College, by tapping on her other senses - feeling the bus do a big swerve and rolling over a hump - to know when to press the stop bell.

Schoolmates, including some unlikely ones, would chip in to help. "Some of my school's ah bengs (Hokkien slang for uncouth boys) would block the bus door to let me board first, before allowing others on."

Giggling over their youthful fit of gentlemanly behaviour, she adds: "Afterwards, they would tell me gruffly not to tell others that they were so nice to me."

Home is a four-room Housing Board flat in Bishan which she shares with her mother and 72-year-old father, a former public health officer.

Dr Yeo, who is single, is the middle child. Her older brother is a media officer, 39, while her younger sister, 26, works as a nurse.

In school, she learnt the best way she could, tape- recording each lesson. Teachers helped by reading aloud what they had written on the board. At home, she transcribed the lectures into Braille, a tedious process that took her till almost 1am on most nights.

"You have that limited amount of time to master that information, so you just learn to do it," she says.

It was this attitude that impressed retired Serangoon JC principal Thomas Tan, 76. "Our teachers helped to accommodate her learning by drawing graphs on a piece of plastic using the sewing machine's needle so she could feel the graphs," he adds.

He describes Dr Yeo, who studied there from 1995 to 1996, as a "courteous and cheerful student" who left a lasting impression.

Her examinations were taken in Braille. Mathematical symbols have their own Braille versions and when she is unsure, she checks the Braille equivalent of a dictionary. Dr Yeo also uses a "talking" computer with a standard keyboard - without Braille lettering - which reads out words as she types. It took several days for her to learn the software, she says, using how-to tapes.

She uses an iPhone 4, with its voice-over function telling her what is being written on the screen as she swipes her fingers over the words.

Describing her daughter as an independent, quiet person who craved alone-time in her room, Madam Tung says that watching Dr Yeo go on stage to receive her PhD in 2006 was one of the proudest moments of her life. She says: "My husband and I did not expect her to study so hard and to do so well. We feel very fortunate that she is able to do so well for herself."

Learning to cope has given Dr Yeo an arsenal of know-how to pass on. Apart from working as adjunct assistant professor at Nanyang Technological University, where she teaches graduate-level students, she also mentors five blind students at junior college and polytechnic level, who asked her for advice after reading about her or whom she met through mutual friends.

One of them, 19-year-old Millenia Institute student Ong Hui Xin, calls her "big sister" and goes to her for homework advice.

Dr Yeo tutors her, breaking down mathematical problem sums to make them easier to understand and also gives the teenager a listening ear. The pair chat online or over the telephone once a week and sometimes meet at Dr Yeo's home for dinner.

Helping younger, blind students is what Dr Yeo calls her "greatest satisfaction". She says: "So many people in my life have helped me along - my teachers, peers and even just random strangers on the street, so I want to pass it on by helping others."

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BACKGROUND STORY

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DR YEO SZE LING, a research scientist at A*Star

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