Design Education Summit

Design is not just a job – it's a way of thinking: Minister

Singapore's young must be nimble problem-solvers in a world disrupted by Covid-19, says Lawrence Wong

Jolene Ang

A group of primary school pupils has come up with a novel solution to tackle the challenge of how to motivate patients at a hospital to attend physiotherapy sessions.

The pupils from Princess Elizabeth Primary, who were part of the school's applied learning programme in innovation and enterprise, came up with a simple but effective method.

They turned the physiotherapy exercises into tactile games, which were popular with patients.

Yesterday, Education Minister Lawrence Wong cited this example of contributing to the community through design thinking.

He was speaking at the Design Education Summit, held virtually yesterday and attended by more than 600 local and international educators and industry experts.

The event, which is in its second edition, was organised by DesignSingapore Council – the country's national agency that promotes design – and the SUTD-MIT International Design Centre.

Its focus this year was on the importance of design as a strategic tool to help Singapore recover from the social and economic effects of the Covid-19 pandemic.

Design thinking is an approach to creative problem-solving that applies to businesses across sectors.

The focus is on building empathy in reframing and resolving problems.

Mr Wong said that in a world disrupted by Covid-19, there is a need to prepare Singapore's young to be "adaptable, nimble and innovative problem-solvers".

"And in this respect, design as a discipline and way of thinking has much to offer. Design is not just a job – it's a way of thinking. And today, we see the fingerprints of design in every sector, from banking to manufacturing and IT."

In the corporate world, design has transformed businesses, helping to solve "the company's most frustrating problems, with a lens that puts the user at the centre", he added.

He cited DBS' user experience and design team as an example.

The team researches consumer banking journeys and looks for ways to improve.

Education Minister Lawrence Wong cited DBS' user experience and design team as an example. The bank noted a surge in logins near the end of every month, and the design team attributed this to the number of people who were logging in to check that their salaries had been deposited. In response, the team added a new "peek balance" function to the bank's app, where users can check their account balances without having to input their login details.

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The new function was used six million times a month in 2019, said Mr Wong.

"So you can imagine the convenience it has brought to consumers and the time saved collectively."

In the span of five years, this user experience and design team in DBS has grown from two people to 60, which is indicative of the value that design as a function brings to the business, he noted.

Mr Mark Wee, executive director of DesignSingapore Council, pointed out that "given the difficulties the pandemic has imposed on businesses and society at large, this summit serves as an important reminder of the efficacy of design – from providing solutions to offering new and exciting opportunities".

"Having a design mindset and its associated skills is imperative to adapting to a volatile, uncertain, complex and ambiguous world."

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Above: Dr Muhammad Nazir Amir spent years conducting classroom research and developing a pedagogy to make learning more relevant, appealing and personal. His story was shared at the Design Education Summit yesterday. PHOTO: BERITA HARIAN

Right: St Joseph's Institution students testing an augmented reality prototype on a piece of artwork. Students in the school's arts programme came up with the idea of using augmented reality to transform the viewing experience of various pieces of artwork displayed around the school. PHOTO: ST JOSEPH'S INSTITUTION

Teachers, students use design mindset to spark learning and creativity

When Dr Muhammad Nazir Amir started teaching at Greenview Secondary School in 2002, he realised his students were easily distracted.

It got him thinking about ways to better engage them. He spent the next 15 years conducting classroom research and developing a pedagogy to make learning more relevant, appealing and personal.

Dr Nazir's experience was part of a series of stories shared at the Design Education Summit yesterday.

The summit, which is in its second edition, was organised by DesignSingapore Council and SUTD-MIT International Design Centre.

In 2005, while Dr Nazir was accompanying students on a volunteer trip to a Movement for the Intellectually Disabled of Singapore (Minds) school, he passed by a preschool class and noticed that the Minds teachers were also struggling to engage the young children.

"This became a design opportunity to conceptualise a storytelling project for the children. We had an idea to design and make science-based toys that could make fairy tales and nursery rhymes come alive," said the 43-year-old, now a master teacher in educational support at the Education Ministry's Academy of Singapore Teachers.

This is one example of having a design mindset – an approach to creative problem-solving that applies across sectors, including education. The focus is on building empathy in reframing and resolving problems.

Through the project, Dr Nazir's Greenview Secondary students picked up science, art, English and computer application concepts.

For instance, in the story of Rapunzel, they came up with a way to depict the scene of the prince climbing the tower, using a kitchen towel roll integrated with a wheel-and-axle attached to a pulley.

The students' English teacher came in to train them in narration and dramatisation skills, while graphic and animation skills in PowerPoint were also taught during computer applications lessons.

Said Dr Nazir: "Through this project, the students found a sense of purpose to learn... In the end, students come to the lessons because they want to and not because they have to."

He added that the project also got buy-in from teachers.

"It instilled in the students a sense of self-worth and heightened self esteem. They were not just contributing with their service and time, but also with their knowledge... As a teacher, I saw that they became interested and engaged."

Another story featured at yesterday's summit was one about St Joseph's Institution, where students were involved in a design education initiative of their own.

In January last year, a group of Secondary 2 students in the school's arts programme came up with the idea of using augmented reality to transform the viewing experience of various pieces of artwork displayed around the school. This was done outside of curriculum time.

Ms Jessica Cheng, 27, one of the teachers in charge of the arts programme, said: "Our key objective with this initiative was to think about how we could use technology to tell stories, as well as view art.

"The students came up with solutions to create a better (viewer) experience, relevant and in line with the nature of design thinking."

The students created a discovery trail, where visitors can use their mobile phone cameras to find clues around one art piece that lead to the next.

Said Ms Cheng: "To them, learning is usually within the classroom and graded with a set of assessment rubrics. But with this, they saw learning in a new light, that it need not be bounded by that."

One of the summit's speakers yesterday, Mr Pann Lim, told The Straits Times that design goes beyond products and aesthetics. He is co-founder and creative director at advertising agency Kinetic Singapore and art collective Holycrap.sg.

Young people will have to understand that "the usual way of working is not the same any more", he added.

With the gig economy on the rise, many may choose to take up multiple jobs concurrently.

"If I had said to my parents years ago, I'm taking up three to four jobs in a week or month, they would have said, 'No, go for a stable job'."

There are different avenues to make money, such as creating content on YouTube and Instagram, Mr Lim, 48, added.

"There used to be a few ways of reaching your destination, but these days, there are many routes... Creativity is not necessarily about doing design or being artistic: It's a way of thinking."

Jolene Ang