Some kids use robots to learn Chinese language

ple digital skills.

Some pre-schools use coding and artificial intelligence (AI) tools to help in language learning. At Toa Payoh Methodist Pre-school, K2 children use robots to learn the Chinese language.

There is the Luka AI Reading Robot, which reads aloud bilingual picture books, and the Tale-Bot Coding Robot, which lets children learn new Chinese words while playing navigation games in pairs.

Hanna Lee Chye Yue, six, said these tools make lessons interesting, and the robots' voice command functions help to improve her pronunciation of Chinese words.

"Luka will first say the words in English, and then in (Mandarin). So I learn new words and get to hear how to say them correctly. Then I will repeat them," she said.

Dr Sun He, assistant centre director at NIE's Centre for Research in Child Development, said findings from an NIE-administered e-book reading project showed that using well-designed digital materials promotes early bilingualism.

But she added that as young children spend more time on screens, it becomes crucial to gain a deeper insight into the effects of screen exposure during early childhood.

While the American Academy of Paediatrics advocates that pre-schoolers aged two to five should be restricted to one hour of high-quality digital media exposure a day, reports from various regions indicate that children frequently exceed this recommended limit, Dr Sun said. She added that in Singapore, only 26.5 per cent of pre-school children were observed to adhere to the guideline.

Skool4Kidz's 28 pre-schools also use coding robots like Bee-Bot during outdoor play. For example, in the school garden, children can program Bee-Bot to move on a grid mat on the ground to "collect" pictures of plants. They can also use a tablet to scan QR codes paired with each plant to get more information about it.

Dr Jane Ching-Kwan, 62, curriculum founder at Skool4Kidz, said its centres use technology tools and resources that are appropriate, purposeful, and have an element of play.

"How can they use these tools to communicate, collaborate and play with their friends, instead of just them and the technology in a singular relationship?" she said, adding that children need to see that learning can happen in different ways.

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