



A WHOLE NEW WORLD

WHAT IT TAKES TO NURTURE CREATIVE AND INNOVATIVE THINKERS.

Why don't crabs have eyebrows? Do fish drink the water they swim in? If sunlight and rain are food for plants, why aren't rainbows? These are some thought-provoking questions asked by children at Khalsa Kindergarten that stimulate curiosity and spark the creative process.

Children are intrinsically curious, says Mrs Teh-Ng Cheng Khim, a lecturer at the National Institute of Early Childhood Development – Temasek Polytechnic Campus. "This quality motivates children to explore and discover, which in turn helps them become more self-aware and builds their confidence," she adds.

“Educators with an innovative mindset are constantly on the lookout for creative ideas. They are likely to go out of their comfort zone and think of new ideas and ways to plan and implement learning opportunities.

MS NURLINDA BINTE DAUD, 40
Principal,
TwinkleKidz
Academy



The key is to provide them with plenty of opportunities to explore, imagine, inquire and create. Furthermore, it is important for educators and parents to 'walk the talk' and model the same behaviours they want to nurture in children, that is, be curious and innovative themselves. *Beanstalk* catches up with a few educators and parents, as well as Mrs Teh-Ng, to talk about innovation in the early childhood sector.

WHAT DOES AN INNOVATIVE MINDSET LOOK LIKE IN AN EARLY CHILDHOOD EDUCATOR?

Nurlinda Binte Daud: Educators with an innovative mindset are constantly on the lookout for creative ideas. They are likely to go out of their comfort zone and think of new ideas and ways to plan and implement learning opportunities. We once used playground slides spontaneously to conduct a ramp experiment, after a child wondered out loud why they were able to slide down the slope. We collected a variety of items to explore which ones could and could not roll down the slides. The children recorded the results and talked about the criteria needed for things to slide down a slope. That day, the slides became an innovative teaching resource, instead of just another outdoor play structure. To me, innovation can mean using a novel approach for a theme or topic, giving children different materials to explore, or simply using available resources in different ways.

Nithya d/o Chandrasekaran: Innovation is about being creative and reflective in our teaching practices. In the classroom, we use technology as a tool to complement

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MS NITHYA D/O CHANDRASEKARAN, 40
Senior Teacher, Khalsa Kindergarten



WATCH AND LEARN

How are other educators embracing an innovative mindset in their classrooms?

Check out how Mr Mohammad Aizat Hashim, principal of Mosaic Preschool (Eunos), uses innovative techniques such as “bookless stories”, magic and technology to engage his preschoolers effectively.



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authentic, hands-on experiences. For example, we used to teach children about current affairs the traditional way, by using newspaper and magazine cuttings. It was challenging to engage children due to the small font sizes and pictures, and the complex words used in the articles. What we did was to use a projector to flash news content with detailed pictures and videos that were able to better capture their attention. Group discussions then became more energetic. It is also important to reflect on our teaching practices based on our observations of children’s behaviours to develop new and creative ways to engage them.

WHY IS IT IMPORTANT FOR EDUCATORS TO EMBRACE AN INNOVATIVE MINDSET FIRST?

Teh-Ng Cheng Khim: Studies show that teacher-child interaction contributes quite significantly to developing innovative mindsets in young children. Children look up to their teachers as role models. Therefore, it is important for teachers to embrace an innovative mindset and embed it in their classroom practices. It is also essential to involve children in the creative process to further develop their creative capacity.

BEING AN INNOVATIVE EDUCATOR MEANS DOING THINGS DIFFERENTLY AND TAKING RISKS. WHAT ARE SOME CHALLENGES THAT EDUCATORS FACE AND HOW CAN THEY OVERCOME THEM?

Nithya: Some educators may find it troublesome to change things that are already working well. The process of innovation can be tiring and time-consuming. It often involves a lot of trial and error, where failure may affect the teacher’s self-esteem and confidence. By adopting an open, collaborative culture, working as a team and sharing ideas, we can encourage teachers to take risks and embrace mistakes as part of the creative process. New ideas can spark imagination and trigger further ideation. I use my mentoring programme as a framework

for teachers to share teaching strategies and discuss implementation concerns. Peer observation also helps teachers learn good practices from one another. I myself have learnt many new things from my mentees, which I share with other colleagues.

Nurlinda: Time management is one of the biggest challenges for teachers. They need time and space to explore new ideas, learn new technologies and try new strategies. As much as possible, I ensure my teachers have protected time as it is one way to support innovative thinking. I also encourage them to take things one step at a time and come to me for help or advice. It is important to acknowledge their ideas, no matter how big or small they may seem, and encourage them to share their thinking behind these ideas. To support the creative process, we need to help teachers build the required skills through professional development.

PARENTS, WHY IS IT IMPORTANT TO DEVELOP AN INNOVATIVE MINDSET IN YOUR CHILD?

Kyle Lee: Change is the only constant, and the speed of change is only going to increase. Having an innovative mindset is about being able to troubleshoot, consider alternatives and solve problems. It is also about being flexible and adaptable to changing situations. These are important life skills.

Neeta Pon Malar Kalaiselvan: Innovative thinking helps a person go through different phases and rough circumstances in life. Reducing distractions in the environment helps children focus and think of new ways to tackle a task. Parents just need to be patient and give them time to complete the task, rather than doing it for them.

WHAT STIFLES INNOVATIVE THINKING? HOW DO YOU OVERCOME THESE OBSTACLES?

Neeta: Fear of poor outcomes and making mistakes stifles innovation. It is important to provide positive affirmation to our children when they try to be innovative.

Kyle: If a child is not given the opportunity to understand or analyse an issue, or to

STRENGTH IN NUMBERS
Mrs Elsie Tan-Chua, an ECDA Fellow and Principal of Living Sanctuary Kindergarten, shares tips for fostering a culture of innovation among preschool teachers.



- **SET THE RIGHT TONE.** Create an environment that nurtures the spirit of innovation together with these values: openness, communication, mutual respect, engagement and trust. Every educator should be viewed as a thinker. Encourage and welcome all contributions, including those from the non-teaching team.
- **HAVE AN OPEN MINDSET.** Be open to new ideas and acknowledge the innovators.
- **CELEBRATE FAILURES TOO.** Acknowledge and celebrate the achievements and creative efforts of educators, but also embrace failures as part of the learning process.
- **EXCHANGE AND IMPLEMENT IDEAS.** Encourage educators to share good ideas and translate these into practice. Reflect on these innovative strategies to adjust and adapt accordingly.



“It is perfectly fine for children to have free time and space to exercise their creativity to make their own entertainment.”

MR KYLE LEE, 37
Lawyer, father of Alexander Lee, 4, and Victoria Lee, 2 (with his wife, Ms Karen Wong)

participate in decision-making, it might lead to the child preferring to wait for instructions or be more passive. We find it useful to articulate to our children the situations we are facing and ask them questions. For example, if something we had wanted to buy was sold out at the first shop we went to, we would ask them to think of possible alternatives and talk through the different options with them.

WHAT DO YOU DO AT HOME WITH YOUR CHILDREN TO GET THEM TO THINK OUT OF THE BOX?

Kyle: The pandemic restricted our ability to bring our children outside, which greatly limited their activities. So, we invented games for them to play at home. We provided them with miniature instruments to make their own music. We let them use the bathroom as their atelier, where they painted with washable paint and explored other art materials. We also had a stash of recycled materials that could be repurposed for art projects. One rainy day, we dressed them in rain boots and gave them umbrellas

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MRS NEETA PON MALAR KALAISELVAN, 33
Occupational Therapist, mother of Noel Anbukkiniyan, 4



DREAM MACHINE

Luka, the reading robot, knows over 70,000 Chinese storybooks. The first of its kind to debut in a preschool in Singapore, the artificial intelligence-powered robot was introduced at the five Methodist Preschools to supplement the teaching of mother tongue language. He has been a hit with the children, who enjoy listening to him read aloud, sing rhymes, and even teach them Chinese through pictorial cards. Interacting with the robot has encouraged children to read more and read independently, thus improving their vocabulary and communication skills in Chinese. For its innovative use of technology, Methodist Preschools won the international Gartner Eye on Innovation Award for Education 2022 in the K-12 category.

to play with at the balcony. Through these activities, we showed our children that they could create their own fun, whatever the circumstances.

Neeta: We plan activities that do not require a lot of time to prepare, and use materials found at home to promote creative thinking. For example, we gave our children a bucket of colourful balls to decorate a wall. Left to their own devices, they came up with creative patterns.

WHAT ELSE CAN EDUCATORS AND PARENTS DO TO ENCOURAGE INNOVATION AND AVOID STIFLING CHILDREN'S CREATIVITY?

Cheng Khim: For a start, refrain from giving children too many instructions. Often, direct instructions are provided prematurely to children before they have sufficient time to think or exercise their reasoning skills. This inhibits children's innovation. Be active listeners — listen carefully to children, be non-judgemental, and respond genuinely to their feelings and words. Give them the autonomy to make their own choices, think and reason for themselves. Guide children through the problem-solving process by asking questions, generating alternative solutions, allowing them to choose, and helping them follow through with their choice. More importantly, as children learn through observing important adults in their lives, we too need to emulate these behaviours in our interactions with children and others.

Kyle: Do not be afraid that your child might be bored. It is perfectly fine for children to have free time and space to exercise their creativity to make their own entertainment.

Nurlinda: Allow children to make mistakes and enjoy the process of doing, rather than needing to achieve a perfect result in the eyes of adults.

Nithya: Give children space and time to explore on their own. Let their learning journey be organic and natural. Through the process, they will learn to think critically, use their imagination, and solve the problem. Giving them the solution or doing it for them only hinders them from being creative. It is normal to want our children to succeed, but without facing failure, they cannot learn and grow.

LEADING BY INNOVATION

DR SUM CHEE WAH ON THE IMPORTANCE OF LEADERSHIP IN SHAPING AND INFLUENCING EDUCATORS' MINDSETS.

Preschool teachers who want to succeed in adopting an innovative mindset need a supportive environment as much as children do. After all, teachers are only able to provide an environment for the children's innovation when they themselves work within one that encourages, promotes and values innovation. Here are some ways centre leaders can create an enabling environment to nurture teacher innovation.

A teacher who has been instructed to follow the lesson plan closely will not be able to build on unanticipated learning opportunities that emerge in the classroom.

> TAKE SMALL STEPS. Start innovations on a small scale. Learn from prototypes before scaling them up. This is also an approach that teachers can take with classroom-level innovations.

> CREATE DEDICATED TIME FOR TEACHER ENGAGEMENT.

Allow time for teachers to engage with one another. This will enable them to process their ideas and have deeper pedagogical conversations with peers.

> CREATE A SAFE PSYCHOLOGICAL ENVIRONMENT FOR TEACHERS TO ARTICULATE THEIR IDEAS.

If a teacher comes up with an idea that is quickly dismissed, he or she is likely to feel inhibited and hold back the next time. Instead, help them see the bigger picture or the larger considerations at hand.

> GIVE SPACE TO MAKE CLASSROOM-LEVEL DECISIONS.

Encourage teachers to be flexible and try different activities in response to the diverse range of situations in the classroom or their observations of children.

> NEVER CONDONE FINGER-POINTING.

Do not expect things to be right the first time. Facilitate learning from the experience by reflecting on what worked and what did not, so that teachers can accept failures as part of learning and succeed the next time.

Centre leaders play a key role in nurturing innovative mindsets. As such, they need to embrace a growth mindset themselves and shift from wanting to be in control to sharing responsibilities with their teachers.



DR SUM CHEE WAH is an Associate Professor of the Early Childhood Education Programme at the S R Nathan School of Human Development, Singapore University of Social Sciences. She previously served as an Advisor for Preschool Education at ECDA.