



MIND IN THE MAKING

A THINKING CHILD CAN MAKE SENSE OF THE WORLD AROUND HIM AND LEARN TO SOLVE PROBLEMS. EARLY CHILDHOOD (EC) PROFESSIONALS AND PARENTS DISCUSS HOW TO FOSTER THIS ASPECT OF BRAIN DEVELOPMENT IN OUR PRE-SCHOOLERS.

OPPOSITE PAGE On Anisah: Full outfit, Marks and Spencer. Hijab, Model's own. Coral Pumps. Stylist's own. On Sean: Full outfit, Marks and Spencer. Sneakers and Socks. Model's own. On Qistina: Full outfit, Marks and Spencer. Bandana Headband. Stylist's own. Cherry Pom Pom Sandals. Seed Heritage. On Julia: Full outfit, Marks and Spencer. On Jaycob: Full outfit, Seed Heritage. Shoes and Socks. Stylist's own. THIS PAGE Anisah: Full outfit and Hijab. Model's own.

WHY IS IT IMPORTANT TO LAY THE FOUNDATION FOR CRITICAL THINKING AT AN EARLY AGE?

Anisah Sultan Ali: The brain develops as early as when the baby is in the womb. But the pace at which connections are formed in the brain is rapid, particularly during the infant and toddler stages. We know from research that our genes and early experiences, as well as the interactions between these, help to shape our brains. Children's brains are sensitive to environmental influences. They thrive in the presence of warm and nurturing relationships with caring adults, with nutrition, as well as a safe and secure environment, among others.

Juditha Rajoo: Being able to think critically and solve problems can help build self-confidence and resilience. As parents, we can't always be there for our children so it's important that they acquire these soft skills. Children develop these skills as they explore and experience real-life situations for themselves, with supporting adults to guide and nurture them.

Julia Chan: Critical thinking is an essential life skill. When children learn to think, they can learn to reason, make decisions and problem-solve. As adults, we can equip them with skills to make sense of information, analyse, compare and contrast, and make inferences. We are our children's role models.

Brendan Khor: These days, most parents are aware that the first few years of a child's life are his most important. Whatever he learns during the early years will have a lifetime impact. Whatever he doesn't learn, he will have a hard time trying to pick up later on. Early exposure — especially when children's minds are still forming — is important. Critical thinking, an important skill in manoeuvring life's difficulties, should be nurtured from young, so that it can be polished as the child grows.

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Ms Anisah Sultan Ali

ANISAH AND JULIA, WHAT DO YOU DO IN YOUR RESPECTIVE CENTRES TO FOSTER SUCH ESSENTIAL LIFE SKILLS?

Anisah: We believe that every child should be given the opportunity to thrive in a supportive and responsive environment that will foster his brain development. These opportunities are provided during activities like playtime, story time, and even in routines such as serving of meals. Asking open-ended questions can guide a child's thinking process. We let children think about what causes things to happen, for example, why a certain issue or problem arises, or why a younger child is experiencing a hard time adjusting to pre-school.

During activity time, rather than providing answers, we let children work on projects or hands-on activities, and encourage them to discuss with each other, and look for answers or solutions. Being involved in the experience helps children to engage their minds, build on each other's ideas and make better sense of the situation rather than just listening passively to an answer provided by an adult. Throughout this process, children get to explore, experiment, inquire, investigate, interact and discover. It is a real confidence booster for a child to know that he is capable of thinking through a task.

Julia: There is dedicated playtime in class for children to handle issues through play and interaction with their peers. For instance, a child learns to resolve conflicts when he wishes to have a toy another child is holding on to. At this point, my colleagues and I will keenly observe. We do not intervene immediately to allow the child to have a sense of autonomy and ownership of the situation.

Only when there are indicators that the problem cannot be resolved, such as when one child starts to get emotional, do we step in. Still, I do not offer any advice on what to do; I ask questions to promote their thinking and, hopefully, they will come to an agreement.

However, if the problem is still unresolved, I will invite the other children to role-play the scenario. As a class, we will discuss what is the best possible solution. This way, everyone can learn in a fun and engaging manner.

At my centre, we also inculcate critical thinking through storytelling. Teachers are encouraged to not just read to the children, but also facilitate a discussion about the story through open-ended questions.

Ms Anisah Sultan Ali
49, Principal,
Learning Vision
@ Work (NCS Hub)

IT SEEMS THAT TEACHERS, TOO, NEED TO THINK CRITICALLY AND SHARPEN THEIR PROBLEM-SOLVING SKILLS. HOW CAN THEY DO SO?

Julia: Every teacher is unique and has a different teaching style. As educators, we should reflect and examine our own practices and pedagogy to provide our children with an enriching pre-school experience. We should evaluate our teaching practices, as these impact on the children's learning and our own professional development.

I find that having regular discussions with fellow colleagues is a good professional practice. When we come together, we can examine our teaching strategies and pedagogies, as well as share and learn from one another.

Having a supportive principal is also important as it creates a 'thinking' culture at the centre. For example, when I approach my principal with a problem or challenge, she does not immediately offer advice or answers, but poses questions. This helps me to reflect, evaluate and analyse the issue.

Anisah: It is crucial for EC professionals to build their own critical thinking and problem-solving skills. We embarked on a Practitioner Inquiry (PI) project on "How do teachers encourage children to ask questions?" The concept of practitioners engaging in inquiry is an important part of professional development. Undertaking the PI has enabled us to

become more reflective of our practices and more responsive to the needs of our children. We learn to observe the children closely and listen carefully to what they have to say.

In fact, the processes involved in the PI project have enabled us to be more intentional in the way we teach, the strategies we use and the outcomes we specifically want to achieve in our children. They have also helped us re-examine our centre's pedagogical practices and how we can improve them to become better educators.

PARENTS, WHAT DO YOU DO AT HOME TO ENCOURAGE YOUR CHILDREN TO THINK AND REASON?

Juditha: When my son Jacob plays with his building blocks, I don't give instructions or guide him along very much. I let him explore and experiment for himself. As the toy is something he is interested in, he is eager to solve the problems on his own. I believe decision-making skills start to develop when a child is thinking of solutions.

I encourage my sons to ask questions and I try not to give them the answers straightaway. Instead, I respond with another question to encourage them to think deeper as I probe further. It's very important to spur children's thought process and spark curiosity in them.

Brendan: Natural curiosity and a positive attitude towards life are important to me. Curiosity brings with it an instinctive desire to learn and is the very basic foundation to critical thinking. When we go out, I talk a lot with my three girls. I draw their attention to the interesting and diverse surroundings by pointing out the things around them. We need to give our children as many opportunities as possible to think and problem-solve.

At home, my wife and I encourage free play. Our children do a lot of role-playing and they get to be creative. We also encourage them to play together

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Mr Brendan Khor



Mr Brendan Khor
39, Executive Director of an integrated design and build company, Father of three girls aged 3, 4 (Kaylee Khor), and 8



THIS SPREAD On: Brendan: White tee & Healy Shirt; UNIQLO. China Pants; Marks and Spencer. On: Kaylee: Printed Dress. Seagull. On: Juditha: Full outfit; UNIQLO. On: Julia: Full outfit; Marks and Spencer.

Being able to think critically and solve problems can help build self-confidence and resilience. As parents, we can't always be there for our children so it's important that they acquire these soft skills. Children develop these skills as they explore and experience real-life situations for themselves, with supporting adults to guide and nurture them.



Mdm Juditha Rajoo

as they learn by observing other kids. Conflicts may arise, but this gives children the opportunity to negotiate and work through the issues. These are important life skills.

WHAT ADVICE WOULD YOU GIVE TO OTHER PARENTS TO HELP THEM INCULCATE CRITICAL THINKING IN THEIR CHILDREN?

Brendan: If we want our children to be critical thinkers, as parents, we have to be their role models. We need to prioritise our time, be involved and build a connection with our children and be their playmate. I'm also mindful about mobile devices. I will not take them away completely, but I will limit my children's time on it.



Ms Julia Chan
40, Educator, Glory Kindergarten



Mdm Juditha Rajoo
35, Secondary School Teacher, Mother of three boys aged 4 (Jaycob Sivabalan), 9 and 11

Anisah: Do not ask your children questions for the sake of asking. Both questions and answers must be appropriate to the children's level of understanding and ability. After a storytelling session, for example, use the '5W' and '1H' (Who? What? Where? Why? Whom? and How?) These questions will help them to recall the storyline and encourage them to think more deeply and meaningfully.

Juditha: As parents, we naturally worry and want to protect our children. However, it's important to let them know that it's perfectly alright to face setbacks, and that it's okay to make mistakes. If your child is afraid of making mistakes or failure, he will not be willing to try and learn. They need to learn that they can think through problems and find alternative solutions. If parents intervene too soon and too often, we tend to disrupt our children's thinking process and deprive them of the chance to develop critical thinking and problem-solving skills.

Critical thinking is an essential life skill. When children learn to think, they can learn to reason, make decisions and problem-solve. As adults, we can equip them with skills to make sense of information, analyse, compare and contrast, and make inferences. We are our children's role models.

Ms Julia Chan

THINKING TOTS



DR CATHERINE DONAHUE, ASSOCIATE PROFESSOR OF EDUCATION AT WHELLOCK COLLEGE, BOSTON SHARES HER INSIGHTS ON HOW TO DEVELOP STRONG FOUNDATIONS FOR CRITICAL THINKING IN INFANTS, TODDLERS AND PRE-SCHOOLERS.

HOW EARLY IS TOO EARLY TO LAY THE FOUNDATION FOR DEVELOPING CHILDREN'S ABILITY TO THINK CRITICALLY?



It's never too early. I recommend starting at birth. A baby is born curious. He responds to familiar voices, although he may show preference to his parent's voices when called. While we don't use the term "critical thinking" when talking about infants, the groundwork for this skill starts immediately. Talking and treating the baby in a respectful, nurturing way will help lay the foundation for him to grow up as a critical thinker.

DOES THIS MEAN WE SHOULD INTERACT WITH THE BABY EVEN THOUGH HE IS NOT TALKING YET?

Babies communicate from birth — just not by using words. When they look at their caregivers, that's "talk". Babies are more competent than most people understand. When you interact with a baby, be sure to wait. For example, when you ask "Do you want this?" — wait a moment. The baby may take a few seconds, but he will "answer" back. Communicative signals are given to his caregiver through sounds and facial expressions. He is paying attention, listening, looking, making eye contact, trying to touch and always seeking information. He is thinking!



HOW ABOUT PRE-SCHOOLERS?

Pre-schoolers are becoming more complex in their thinking. They are acquiring a wide and rich range of vocabulary, and can express their ideas, thoughts and feelings. When you engage them in conversations and discussions, use the opportunity to introduce new vocabulary and sharpen their observation by drawing their attention to details. They are developing a higher level of memory — they can remember more.



IN WHAT WAYS CAN WE HELP INFANTS AND TODDLERS, INCLUDING PRE-SCHOOLERS, DEVELOP THINKING AND PROBLEM-SOLVING SKILLS?



For a start, it is important to develop a trusting relationship with the child. His ability to learn and develop positively depends on the quality of this relationship. Spend time getting to know your child's development and the stage he is at — physically, intellectually, emotionally and socially. With this valuable information, you can support

and scaffold the next stage in his development in the following ways:

- **Observe the child closely** over time and how he interacts with his environment.
- **Support your observations and reflections** with theories of child development.
- **Prepare an environment with appropriate materials** to allow the child to practise or master his newly-acquired skills.
- **Be attentive** to what comes next in the stage of his development and modify the environment appropriately to challenge the child.



WHAT ARE SOME THINGS TO TAKE NOTE OF WHEN CREATING ENVIRONMENTS THAT CAN HELP STIMULATE CURIOSITY AND DISCOVERY IN YOUNG CHILDREN?

For infants and toddlers, create an environment where they can explore, touch, climb and check things out. The environment has to be interesting and challenging. If a baby can crawl, the next stage he will be working towards to will be to grab something to pull himself up. Think about spaces with different levels of mats, climbers, ramps, push and pull toys, and more.



For pre-schoolers, engaging them in group work, projects and experiments can harness their cognitive processes, as they observe, infer, communicate, bounce off ideas, clarify and make predictions. You can facilitate their thinking and engage them in discussions to deepen their understanding. Ask questions such as "Why do you think that happened?", "What makes you say that?" or "How can we solve this?" Such questions spur children to ask even deeper questions and look for answers or solutions. ♥



Dr Catherine Donahue
Associate Professor of Education at Wheelock College, Boston



COVER: On Anisah: Polka-dot Blouse & Navy, Chino Pants; Marks and Spencer; Hijab: Watch and Shoes; Model's own. On Sean: Full outfit; Marks and Spencer; Coral Bow Headband; Seed Heritage; On Brenden: Checked Shirt & Purple Pullover; Marks and Spencer; Denim Jeans; Cotton On; Watch and Sneakers; Model's own. Photo: Kavin Chiu Styling/Sharon Tan assisted by Jessica Khor & Kim Nguyen Makeup/Mansia Tan Hair/Annie Tay