

How an inclusive school environment builds a better brain – examples from Kindle Garden Preschool

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Early experiences have been shown to affect brain development. According to Harvard University’s Center on the Developing Child, developing the brain and its ‘architecture’ can be optimal for resilience, pro-social skills and later life achievements. As such, building a solid and nurturing foundation early in life provides the best lifelong outcomes that would protect against adversities. This article demonstrates how an inclusive setting like one of [Kindle Garden](#), can provide the ingredients and environment for a better brain architecture.

Kindle Garden Preschool is an inclusive childcare that provides a common environment for children of all abilities to grow and develop together at their individual pace. When children are nurtured in an inclusive environment, brain development can be optimised. Intentional ways that Kindle Garden scaffolds our children’s growth toward this outcome are: (1) establishing safe spaces for every child, (2) fostering responsive reciprocal interactions between children and adult staff, and (3) empowering the home and community around each child.

How an inclusive school can optimise brain development

1. Establishing safe spaces for every child through

- (a) Calm down spaces
- (b) Transition resources
- (c) Conducting pre-enrolment meetings to understand potential stressors
- (d) Curriculum includes age-appropriate problem-solving e.g. social stories
- (e) Staff caring, available and approachable

2. Fostering responsive reciprocal interactions through

- (a) High adult-to-child ratio
- (b) Appreciate each individual child’s developmental and communication style, providing personalised learning experiences
- (c) Buddy system

3. Empowering the home and community around each child through

- (a) Home-school partnerships
- (b) Caregiver coaching sessions by therapists
- (c) Parental involvement in centre activities
- (d) Graduation transition package



Figure 1: Calm down corner are set up to help support children's emotional needs

Firstly, Kindle Garden seeks to establish safe spaces for every child. This is especially important as adversity and stress are known to hinder healthy brain development. We all learn best when we feel safe and learning is better retained when acquired through a positive experience. For a child, that is none other than being respected and having an adult who the child can trust to provide comfort and assurance. Ways Kindle Garden fosters positive experiences and build safe

spaces include having (a) intentional environmental spaces such as a calm down corner in classrooms (**see Figure 1**), (b) resources to support transition into Kindle Garden and to preempt changes (**see Figure 2**) and also as part of transition, (c) holding pre-enrolment parent meetings to understand and identify potential stressors. We also encourage children to develop resilience and age-appropriate problem-solving skills by having within the curriculum selected storybooks and social stories (d). However, the most critical element of establishing a positive and safe environment is having educators and even administrative staff, kitchen cooks who care for each child. Staff appreciates the importance of being available and approachable for children when in need of help and comfort (e). Guided by inclusive values of care, compassion and respect, staff enjoys building trust and relationship with each child to enable each child to be more optimally and 'brain ready' for learning activities.



Figure 2: Social Story: A Day in Kindle Garden, a story of what happens in a day in Kindle Garden Preschool to help new children to transit smoothly into school

Secondly, Kindle Garden recognises **the importance of responsive reciprocal interactions** in the centre. Responsive reciprocal interactions refer to responses an adult makes to a child's initiation of communication – such as an adult responding to a child's vocalisations, cries or gestures with appropriate eye contact, verbalisations or hugs. Experts call this "Serve and Return" like when players are engaged in a tennis match where there is the continuous to-and-fro of each turn (Palix Foundation, 2014). It has been proven that such reciprocal interactions between children and adults are beneficial for a child's continuous development. As it requires the adult to deeply attune to and holistically understand the child, children are not tolerated but are accepted for who they are. This allows the adult to provide individualised scaffolding for the child and build up according to their individual learning, skills or pace.

Kindle Garden's environment facilitates for responsive reciprocal interactions through four main ways – (a) staff are not only caring and approachable, we also maintain a high ratio of adults to children which support more responsive interactions (e.g., personal greetings upon arrival, smiling when shown an object of interest by a child, listening and responding to child's verbal and non-verbal communication). This allows educators to also have the flexibility to conduct activities in smaller groups, which further reinforces the responsive reciprocal interactions when (b) activities and instructions are personalised catering to each child's developmental and communication needs. For example, educators plan classes with every child's learning style in mind and allow children to use



Figure 3: Child using a communication book to respond to questions in class

various means to express themselves successfully too (**see Figures 3 and 4 showing the use of a communication book and an audible button**). Through such personalised learning experiences, each child's participation is maximised and the engagement then stimulates better retention and brain's development (**see Figure 5**). Thirdly, responsive reciprocal interactions are also encouraged amongst the children and through buddy system. Peers are natural conversational and learning partners. With adults facilitating the buddy system, buddies can also support each other and foster an environment that is rich with empathy, compassion and understanding (Lee & Tan, 2021; [link to article here](#)).



Figure 4: Child pressing the buzzer with a pre-recorded voice "more" to request for more of what he wants



Figure 5: Personalised activity pre-planned to achieve individual children's learning goals

Success in developing optimal brain development is multiplied when **the home and community around each child is empowered and engaged**. Recognising that all children in Kindie Garden enter with diverse backgrounds and opportunities, we (a) mindfully collaborate with caregivers to achieve strong home-school partnerships. Such partnerships are vital to understanding each family's needs and ultimately foster a strong supportive environment for each child. The resultant positive experiences would further enhance a child's brain architecture toward beneficial life outcomes. Kindie Garden aims to achieve this through involving caregivers in their child's goal-setting and developing personalised learning support. Additionally, (b) our team of therapists conduct annual caregiver coaching sessions and (c) families are actively involved in centre celebrations and class project work presentations (**see Figure 6**). The process of home-school partnership and empowering the family or community doesn't end when the child graduates. Kindie Garden's transition package sets up the child and family for the next school placement (e.g. primary school, special education school). Families are provided with opportunities to learn about primary school routines, children learn money skills and where required, Kindie Garden educators provide itinerant support to parents and the child's next school teachers through reports or consultations.



Figure 6: During the class project closure, parents are invited to the centre to listen in to their children's presentation on the project

Inclusive school environments like Kindle Garden strive to understand and cater to the needs of all children regardless of their abilities and backgrounds. With Kindle Garden staff equipped to work with children in an inclusive setting, caregiver feedback has shown high level of satisfaction on children's learning experiences in the centre. The creation of safe spaces within our centre, responsive reciprocal adult-child interactions, and the continuing empowerment of the home and community around each child are evidence-based approaches shown to achieve optimal brain architecture (Center on the Developing Child at Harvard University, 2016). Laying this strong foundation for our children early in life sets the stage for positive outcomes such as mental resilience, academic and pro-social skills important for adulthood and work success.

References

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