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An Important Moment in ECD History!

G20 Initiative for Early Childhood Development

Building Human Capital to Break the Cycle of Poverty and Inequality

Argentina, 30 November – 1 December, 2018

G20 Reaffirms Importance of ECD

This is the first time this issue has been addressed by the G20. The G20 Development Working Group (DWG) submitted recommendations for the first 1,000 days of a child's life, key to breaking the cycle of structural poverty and inequality.

Early childhood is one of the most important stages in human life: it is key for every child's development, future well-being and learning capacity. In Buenos Aires, the G20 Development Working Group agreed on proposals to invest in the development of every child's first 1,000 days of life.

The "G20 Early Childhood Development Initiative" points out that "43% of children under five years of age are at risk of not reaching their full developmental potential due to poverty and malnutrition." With the aim of ensuring every child has access to adequate nutrition, childcare services, health coverage and education, the recommendations suggest adopting "a multidimensional approach."

The group now recognizes the link between early childhood and sustainable development, and its importance in breaking the cycle of structural poverty and inequality.

The document recognizes the importance of promoting access to health services for every child and for all women during pregnancy, child-birth and breastfeeding. It also underscores the importance of good nutrition during pregnancy and in early childhood as a means of ensuring full development for all children. It reads that "responsive care is one of the most fundamental elements for optimal child development," while advocating for the necessity for quality and inclusive childcare services, which would contribute to reducing the gender gap through women's labour inclusion.

The document also states that there are currently 70 million children aged up to six years old who have spent their entire lives in conflict zones. "All children should be allowed to develop and thrive in a secure and safe environment," the document reads.

Given this context, the initiative calls for taking action in three priority areas: financing and investing in early childhood programmes, assessing and monitoring the impact of these programmes, and international cooperation.

G20 Initiative for ECD on: International Cooperation and Knowledge Sharing

[There are 32 articles, numbers 28 to 32 are highlighted here.]

28. We renew our commitment to engage in international cooperation as a catalyst for scaling-up and improving the quality and accessibility of multi-sector ECD programs, particularly in supporting low-income and developing countries. To this end, we will coordinate with MDBs, financial institutions and IOs, as well as seek to promote opportunities for collaboration through North-South, South-South and Triangular Cooperation which involve a diversity of actors, resources and instruments.

29. We reiterate that a coordinated multi-sector approach is needed to guarantee effective ECD interventions at the appropriate governmental levels of service delivery, finance and accountability. With this in mind, we call on all stakeholders at the local, national and global levels to coordinate efforts to mobilize resources, share lessons learned, exchange experiences, foster innovation, and improve mutual accountability.

30. We acknowledge the work of different national, regional and global initiatives, platforms and networks that address the different dimensions of ECD. Among them, the ECD Action Network (ECDAN) works towards ensuring that all young children, anywhere in the world, in any circumstances, are safe, healthy and able to learn. ECDAN gathers more than 80 key partners representing UN agencies (ILO, UNESCO, UNICEF, and WHO), financing institutions (WBG and IDB), Civil Society Organizations and Non- 5 Governmental Organizations, foundations, the private sector, ECD regional networks, academia and think tanks. Its work complements efforts of related global initiatives.

31. We commit to provide ECDAN with experiences and best practices related to our national programs and/or international cooperation among ECD initiatives to foster cross-country knowledge exchange and learning. We call on ECDAN to also identify best practices within non-G20 countries and develop a sustainable platform and communication strategy to enable them to share this knowledge along with technical standards for quality ECD programs, especially for low-income countries. The platform should be operational by 2019.

32. We underscore that information on existing sources of financing and other resources is currently widely dispersed and disconnected. We call on ECDAN to develop a database of available regional and global financing initiatives and approaches that would enhance accessibility of information for all involved stakeholders, and would help avoid duplication of efforts.

For the full text, go to

[https:// www.g20.utoronto.ca/2018/g20_initiative_for_early_childhood_development.pdf](https://www.g20.utoronto.ca/2018/g20_initiative_for_early_childhood_development.pdf)

The 'Houses' Project: A Teacher's First Attempt at Inquiry Based Learning

Tessa Rim
St. James' Church Kindergarten

In June 2018, I was given the opportunity to embark on a project-based learning journey which lasted for 12 weeks with a group of 55 inquisitive preschoolers at St. James' Church Kindergarten.

The first 2 weeks was spent formulating questions and jotting down our initial understandings of the topic. The next phase lasted 8 weeks where the children conducted research and collected data from multiple perspectives and resources. Conclusions were drawn in the last 2 weeks where the children synthesized their explorations.

How it all started: Why houses?

We began being curious about houses when discussing about the demolition of the prominent Rochor HDB (Housing Development Board) flats during one current affairs slot in Term Two. The children were devastated to learn that many of the residents were chased out of their own homes. One child asked, "Why the HDB must be knocked down?" Another child thought, "How is the HDB knocked down?"

Why must old houses be replaced?

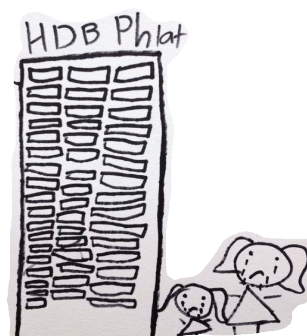
The class began to debate whether the Rochor HDB flats should be demolished. The book *The Little House* by Virginia Lee Burton heavily supported this notion and

the children realised that sometimes, environments change and old things are replaced, but houses do not always have to be demolished. We concluded that even though the flats held precious memories for the residents, space had to be created to serve more people in an improved way.

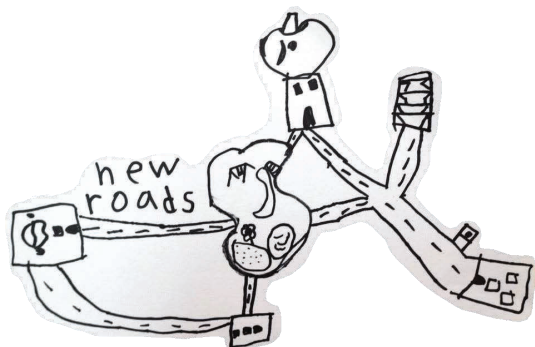
So, the children began drawing what they hoped the Rochor HDB flats would be replaced with. Here were some of their responses:



Picture 1: "A theme park connected to a hotel."



Picture 2: "New flats for those who lost their home."



Picture 3: “New roads so that travelling to places will be faster.”



Picture 4: “A museum for children.”

We took some time to brainstorm a list of ideas and questions. This was important because I wanted the children to take hold of their own learning and drive their own experiences. Here were some questions the children had about houses:

- Why must old houses be demolished?
- What makes a house strong?
- How do you build a house?
- Who builds our houses?
- How do architects design houses?
- What materials are used to build a house?

These questions were important in helping me plan their experiences in the weeks to come.

Making resources available

Having displayed new material such as books and articles about ‘Houses’ each week at our library and discovery centre, the children represented new information through drawings and discussions.

One boy asked, “Why is cement so hard?” This led to other ponderings such as “what is cement and what is it made of?” I took their questions seriously and we made a plan to investigate. We decided to buy some cement and see how and why houses are made of this material. The children had not expected me to suggest a personal experience of discovery in which they were allowed to touch and create something with cement.



Photo 1: Stirring cement powder, gravel and water

After the experience, the children’s curiosity in building materials spiked as we discussed about different tools used for building.



Photo 2: Making a guess about the names and functions of different tools

The children were exhilarated when they found out that builder materials were made available at the classroom learning centres. They felt like real construction workers and architects!



Photos 3 & 4: Putting some tools to the test

**Using resources from the community:
A visit from a migrant worker**

One girl shared, “building a house must be dangerous work because the workers are always wearing helmets and boots.”

Another girl agreed and said, “of course! I saw a banner at the construction site near my house that says “Restricted area, keep out!”

This discussion led to the invitation of migrant workers from *HOME* (Humanitarian Organization for Migration Economics) to speak in class.

The children investigated on their own by asking questions such as “how do you climb up so high to paint the HDB flat?”



Photo 5: Uncle Bulbul (a migrant worker from Bangladesh) sharing his story with the children with the help of a volunteer, Jevon, from *HOME*)

Because of *HOME*, the children learnt of Uncle Bulbul’s story of how he got hurt at work. This was a huge opportunity for the children to discover that many workers like Uncle Bulbul have to leave their family in Bangladesh to work in Singapore. It also reconfirmed the children’s initial hypothesis about the job of a construction worker being a very dangerous and demanding one. I observed that many children were able to empathise with Uncle Bulbul through their questions such as “When will you get to

go back home?” and “Do you miss your family?”

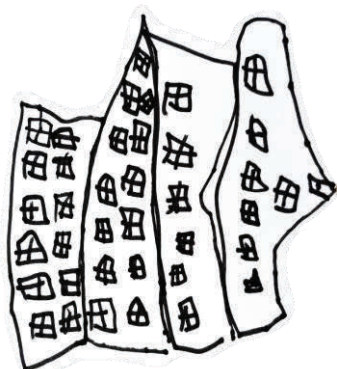
This sharing taught me that these issues can bring out children’s innate feelings of kindness and righteousness. It also aided in critical thinking as the children were reflective and verbalised about how the experience made them feel. Discussions about how to help people like Uncle Bulbul created a climate of empathy in the classroom.

Taking learning outside:

The Kampong and Pinnacle visit

Learning extended beyond the classroom when one child asked, “How are houses in the past different?” Because we could not go back in time, the children investigated by taking on a teacher-organised field study to *Kampong Buangkok* (the last kampong in Singapore) and *The Pinnacle* (a modern 50 storey cluster of HDB flats).

Before the field trip, the children made some predictions of how the oldest houses in Singapore look like. These were some of their answers:



Picture 5: “There will be wobbly houses.”



Picture 6: “The roofs will be made of straw and the windows will be blurry. The houses will be made of wood and nails, and there will be a boat instead of cars.”

During the visit, Auntie Sng, the landlord of the kampong, kindly let the children visit her home. After Auntie Sng shared about the history of the kampong and how it was shrinking, the children surprised me with their ability to empathise when they comforted Auntie Sng by saying, “How can your house be taken away!”



Photo 6: Taking a look at Auntie Sng’s living room



Photo 7: "What is that smell?"

While at the kampong, the children loved running around the large open spaces in front of the houses. However, they were not used to the smell, the heat and the mosquitos! Aunty Sng shared with the children that the stinky smell belonged to the mud and fertilisers and that "When you live here for a long time, you get used to it."

I was amused by how relieved the children looked as our bus pulled up to The Pinnacle at Duxton. It certainly seemed like they preferred this location!



Photo 8: Answering questions in the trip booklet about the features of a HDB flat at the 50th storey.

Photo 11: Documentation of children's responses about the differences between the kampong and HDB flat.



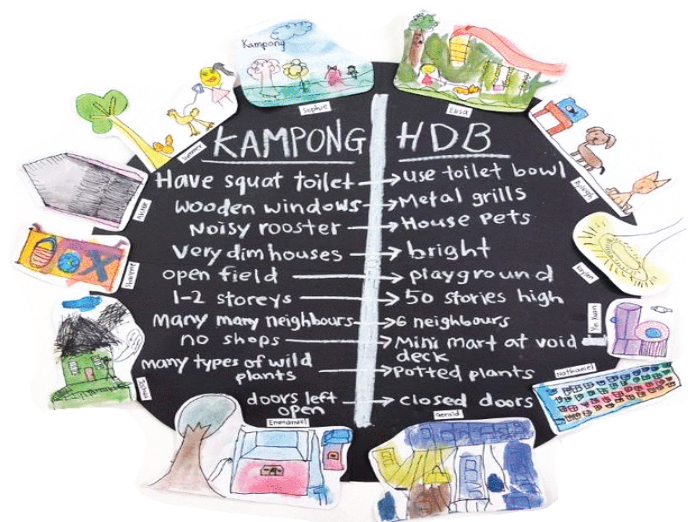
Photo 9: The children were very familiar with the features of the HDB flat such as mail boxes and lifts



Photo 10: Taking the lift together

We discussed about the features of The Pinnacle and how each amenity such as the playground, school and mini mart has a purpose to provide convenience to the residents living there.

After the outing, the class collectively shared their findings. Here is a summary:



This trip provided the children with a platform to understand the changing aspects of time and make their own inferences about the past and present houses of Singapore.

This experience even spurred some children to talk to their grandparents about the past. It provided me with the opportunity to integrate the knowledge into classroom discussions on linking the past to present.

Using resources from the community:

Learning from an architect

After the field trip, the children still had questions! One child asked, “Since Kampong Buangkok is so old, what came before the kampong houses? Another group of children also wondered how houses are built, and I thought, “Who better to teach about building and construction than an architect himself!”

Two architects were invited into the class. Architect Albert and Architect Sarah’s love for building was infectious! Their years of expertise in the field inspired the children and they asked in disbelief, “You really helped to build Terminal 4? I love Changi Airport!”

The children learnt that before the kampong houses, there were stilt houses. In Singapore today, we can only find stilt houses in Pulau Ubin. The children worked in groups and negotiated the roles each team player should take to build a stilt house model. As they went through the thought process of perfecting each component of the stilt house, the children reinforced their prior knowledge and made new discoveries.



Photo 12: “Your hands are like the strong stilts of a stilt house, holding up the parts of the house.”



Photo 13: “Each person will do a different part of the house. How tall should our stilt house be?”



Photo 14: “Don’t forget the verandah; we need space for people to relax.”



Photo 15: “We need to use more sticks for the base if not the structure will be wobbly.”



Photo 16: “Actually, the stilts in the stilt house are like the pillars in our HDB void decks - they hold the house up!”

These incidental discoveries led them to realise that houses around us are always evolving, but they all follow the same principles that were first used in the stilt house - a house always has stilts, walls, and shelter.

The children built their stilt houses with detail and precision. When they were done, they proudly shared their work with everyone, which was a wonderful social and emotional opportunity.

The architects added so much value to the children’s learning. I realised that as a teacher, by involving the community, I could be much more effective than I ever imagined.

**Investigations within the classroom:
What makes a house strong?**

After our experience with the architects, we realised that it was not easy to build a strong house. A few children also shared that houses in Japan are the strongest because they are designed to withstand earthquakes. To investigate further, we put together an earthquake table using very simple materials- recycled styrofoam boards, toilet rolls and rubber bands.



Photo 17: Children shaking the earthquake table and seeing whose house fell last.

The children began building houses using any materials they could find. There were houses made of lego, cups, wooden blocks, paper, sticks and even marshmallows (which they ate after).



Photo 18: Building a house out of sticks and marshmallows.

Because the houses that the children built were big, we decided to make a larger earthquake table using wooden shelves and large cardboard rolls.



Photo 19: Some wooden houses being tested on the earthquake table



Photo 20: “We need to adjust the roof. A wider base will create a strong foundation.”

When we shook the earthquake table, the houses that fell last were those that had a wide base and connectors. The children realised that this was what a strong foundation was made of!

Investigations within the classroom:

How do we attach parts of a house?

During the earthquake test, it was discovered that joints were what helped parts of a house stick together.

We began exploring some ways to help paper houses stick together better since glue and tape were not always the best

solutions; the children’s paper houses were falling apart!

While looking for resources online, I got the idea of compiling some paper attachment techniques and placed this at the art centre so the children could refer to it while building. Some techniques were from the children themselves.



Photo 21: Using different techniques to join a paper house together

Investigations in our Play Space:

Building a wooden house

From a small model house, the children now wanted to experiment building a big house - “LET’S BUILD A REAL HOUSE!” They wanted to create something to call their own, that could be used at their outdoor space at school.

We spent the last week of the project carrying wooden planks, measuring, hammering, fixing windows and doors, sanding and lacquering wood as well as painting their wooden play house.



Photo 22: “Wearing helmets and gloves keep us safe from falling objects and sharp parts!”



Photo 23: Joining parts of the house together.



Photo 24: Lacquering the house to keep it mold free



Photo 25: The completed playhouse

The children saw that a huge team was needed to build a house and that building it was hard work! This hard work paid off in the end and the children were able to enjoy the playhouse with their friends.

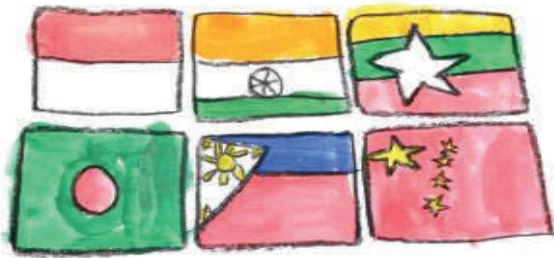
How can we share what we have learnt?

When I suggested to the children about concluding our project, one girl said, “We can make a book about Uncle Bulbul!” Together, different groups put together information that they remember from the meeting with *HOME* and each child painted about a different sentence in the story. I helped the children put their paintings together and printed the first draft for them. They were thrilled to have a book to showcase their learning about something they wanted to advocate about.

Who are Migrant Workers?



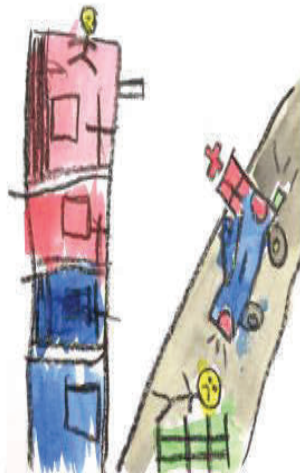
Written and illustrated by
Starlight 2/5



They come from countries
like Indonesia, Philippines, Myanmar,
Bangladesh, India and China.



Let's respect construction workers
by giving them more food and rest.
They need to be strong
to carry bricks and cement.



Sometimes, construction workers
get injured from accidents.
They have no money to see a doctor.

Picture 7: Some pages from the book "Who are Migrant Workers?"



Photo 26: Reading their books to peers from another class

Sharing with the families and public

Open house is a meaningful event at our school where each class showcases their project work process. Learning was definitely evident as the children boasted about their work and discoveries to their parents and friends. The children were already telling their parents all about their project each day after school.

The children's efforts to give back to the community was evident when they urged their parents to purchase the book and planters that they made because the proceeds would be given to *HOME* in support of migrant workers through our SSDB (*Start Small Dream Big*) component.

Advocacy may seem like a complex topic, but it becomes easy when the children identify something they are passionate about. Through this experience, they have been empowered to be a voice for the weak and advocate for an issue that they believe in.



Photo 27: Children identifying themselves in the pictures displayed.



Photo 28: "That's my drawing of the Rochor HDB flats!"



Photo 29: "That's my special window that can be opened in two ways!"

Challenges in the process

One of the biggest challenges I faced was differentiating instruction. I was constantly searching for methods to engage all children because of their wide range of learning styles. I had to offer varied modes for learning. When sharing

about what the children knew about houses at the beginning, those who had strong visual spatial abilities loved drawing maps of their houses while the children who loved movement chose to form shapes of roofs with their bodies. I found that the hands-on experiences helped the children to contribute successfully and stay on task inside and outside of the classroom.

Not all children were willing to ask questions at first. It took time and practice. I realised that taking time to invest in each question created a safe environment for the eager children to understand that all questions were valid and would be honoured. It was emphasised that there were always resources to look to for answers and this made a difference.

Major takeaways

This experience was important for me in developing professionally. I had many moments of self reflection during the process. I realised that this project empowered the children to learn on their own. They loved reading and finding new facts before sharing these findings through various ways such as drawings or show-and-tell. It has been evident to me that when children learn through inquiry and investigation, they become independent and motivated learners. They also become an advocate for a cause they strongly believe in. I hope that this passion for learning will stay with them beyond kindergarten.

Yes, You Should Write a Children’s Book for Your Students

Kathleen Fite and Jon Lasser
Texas State University

If you work with young children, you have probably read numerous books to them. But have you ever thought about writing a book for your students? Commercially prepared books are plentiful and offer tremendous diversity. However, making a tailor-made book for your class is easy, beneficial, and models for them that they can become authors. This article chronicles how a class of emerging teachers in Texas learn about language acquisition and how to make and share a book to enhance curriculum and engage young children.

Writing and reading your own book is a great way to introduce a story line and incorporate it into your curriculum. In *The World Leaders in Education*, Morgan and Barry (2016) remind us that academic skills such as reading (literacy) promote success in life and real-world settings. The Program for International Student Assessment (PISA) assesses and compares academic performance of students in over 70 countries and draws attention to achievement gaps across groups of students. For example, PISA reported that American girls are among the global pool of students with superior performance on the PISA. Girls report higher indicators of achievement and reading engagement e.g., level of enjoyment, time, and range of topics (Brozo et al., 2014, cited in Morgan

and Barry, 2016, p. 51). By crafting a book specifically for students in your classroom, you can help address some of the differences in performance by gender and by inequalities and access due to poverty and other factors that may limit educational opportunities. You know your students best: their interests, their behaviors, their achievement levels, and their level of exposure to books in their homes. By using what you know about the children you teach, you can develop books that are matched to their unique needs.

Your goal

So, where do you start? The first step is to ask yourself why you want to write a book. Is it to enhance existing curriculum? Is it that you want to introduce a topic that is to be covered in your curriculum, but you do not know of an available book? It could also be that you have a special upcoming event you want to highlight or that you want to address problem behavior such as bullying. Our goal is to write books that promote aural, oral, and written language development among the four-year-old children we teach in our fieldwork. We want to involve the children in support activities that extend their learning and engage them in meaningful ways, such as music and art activities.

Developing an idea for a book

Dr. Jon Lasser, a professor, psychologist, and author of children's books often comes to our university class to read one of his



Book cover:
Magination Press
and Christopher
Lyles

books such as *Grow Happy* (Lasser & Foster-Lasser, 2017). He talks about the creative process and gives us tips for selecting topics. He shares with us a concept called *bibliotherapy* (Turkhareli, 2014) which enables us to understand ways that books can help children learn and develop social skills.



Photo 1: Dr. Lasser reading to class



Photo 2: Dr. Lasser showing his books

Bibliotherapy is a therapeutic use of books for developing social emotional competencies and good mental health. Think about what you would like to share or teach. Would you choose a topic on social or emotional development? Why? Also, how will the book support the emerging literacy of the child from a cognitive development perspective? And, how does the use of story foster the child's imagination and support creativity?

Dr. Lasser explains to the students that stories are powerful tools that can help influence perceptions, reveal possibilities, and alter thoughts, feelings, and behaviors. Stories can "help children develop their vocabulary of feeling words...(and) give them powerful tools to build a strong sense of self" (Hankin et al., 2012). Children often identify with characters in books and learn how to manage challenges in their own lives through engagement with stories. For example, in the picture book *Grow Happy*, the main character copes with changes in the weather by protecting her garden with a blanket.



Photo 3: Dr. Lasser, with doll, reading to children

The use of stories to help us develop and build social and emotional competencies has a strong theoretical and empirical foundation. Stories have been used in counseling and psychotherapy to promote wellness, build internal resources, and help individuals cope and adjust to life's stressors (Freeman, Epston, & Lobovitz, 1997; Gardner, 1992; Ivey, Ivey, & Zalaquett, 2018). Children's literature is a therapeutic tool for facilitating emotional growth and healing. According to Heath and colleagues (2005), "stories provide a catalyst for change, providing children with other perspectives and options for thoughts, feelings, and behaviors....and to gain insight and learn healthier ways to face difficulties" (p. 563).

As Dr. Lasser says that the rationale for using books with children is to promote their social, emotional, and behavioral wellness. He notes that children enjoy books that are imaginative, culturally relevant, and full of rich language (e.g., rhyming and alliteration). He encourages authors who write for young readers to use short words and sentences but also to include some larger words to encourage vocabulary development. Books should be developmentally appropriate and appealing to children. Writing your own book gives you control of the wording, the language, and dialect used.

If you do not have an author you can talk to, talk to your students and their parents to determine the stories children prefer. If you have a library, visit it and browse the shelves to find appealing books. If you have Internet access, you can go online and explore digital children's books, e.g. *The International Children's Digital Library* (ICDL) provides, with membership, access to over 4,000 titles from authors around the world. You can also do an Internet search for "children's books" and find links to many titles of books for free. Reading the titles may help spark a topic or title for you!

Planning the story

The next step is to make a story board. We use a graphic organizer with a center circle and surrounding circles so we can visualize our topic and the key components of the story. There are a variety of graphic organizers on the Internet so choose the one that works best for you (Photo 4).

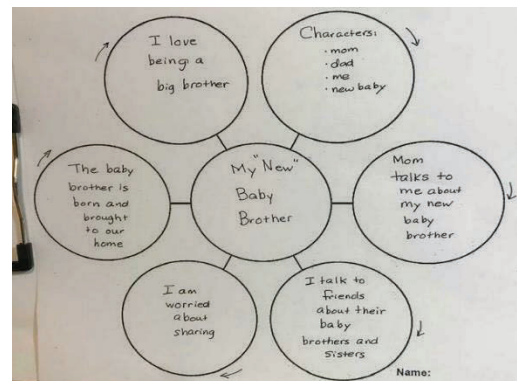


Photo 4: Graphic Organizer for Contents

Once a topic and the key components of the storyline have been identified, we fold a piece of paper so that it has 16 rectangles or squares. Number the squares 1-16. These will represent what is called a storyboard or template for the story, beginning with the title.

In each of the 16 spaces draw and write the sequence of the contents of the book, use the back of the page or additional pages as needed. Adjust the number of pages to fit your story.

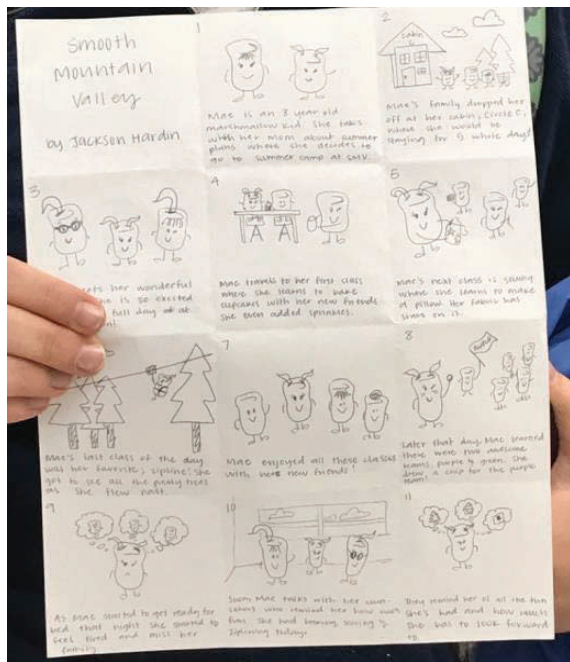


Photo 5: Storyboard with 12 pages

There are many online resources that provide guidance for writing a children's book. They suggest how to develop and publish a children's book. For our purpose, we use an online printing company called Studenttreasures Publishing. We have our books commercially printed. Many teachers publish a class book or individual student books through this service. Large companies like Studenttreasures will provide you with specific details for illustrations, wording, and layout. The company provides us with special paper on which to draw and write. Some teachers print their text on the computer, others print by hand. We are careful to follow copyright guidelines; we usually draw the illustrations ourselves or have a friend or child draw them for us.

We transfer the work to the special paper provided and mail it to the book publisher. You can bind your pages yourself by stapling them, using spiral binding, and punching clip holes if you cannot afford to have the books printed or do not have ready access to a service.

Sharing the book

While the books are being printed, our planning continues. We study how language and literacy develop, discuss how we can share our books with the children, and design supplemental activities to engage the children and enrich their learning. We ask each other questions to encourage the sharing of ideas and opinions. How should you hold a book to share it? How will you introduce the book? Will you tell the children something about the book or teach new words before you begin to read to them?

You can conduct an Internet search for an article called *Purple Suede Shoes* (Fite, 1999). It is both informative and humorous as it tracks how a beginning teacher learned effective strategies for reading by watching the children as she read to them, talking with them, and reflecting on what happened during the activity.



Photo 6: Book Cover



Photo 7: Book Cover

It is exciting to create a book and then read it to the children. We have a mantra “Remember, it is about the children.” This is meant as a reminder that we, the teachers, are with the children to hear and observe how their language unfolds and to engage them in meaningful learning and foster their literacy. Sometimes we are nervous to share books we have made with others. However, many of my students who become teachers write to say the book they made is the favorite one in their class because, as the children say, “My teacher made it for me.”



Photo 8: Illustrations



Photo 9: Illustrations

Look for ways to enhance and extend beyond the reading of your book through activities and games that enrich student learning. One way is to use magnetic letters on a metal baking sheet or you can purchase a metal board made specifically for use with magnetic letters. Addressing multiple senses in instruction is important. By allowing children to use the magnetic letters to spell words or sentences in stories, they can see the letter, touch the letter, trace the shape, and hear a sound as the letter snaps to the metal. You can use magnetic boards to help the children spell their names or to introduce and practice new words that are to be introduced in the book. This process can also be done with a felt board and felt letters.

Photo 10:
Magnetic letters
on baking sheets

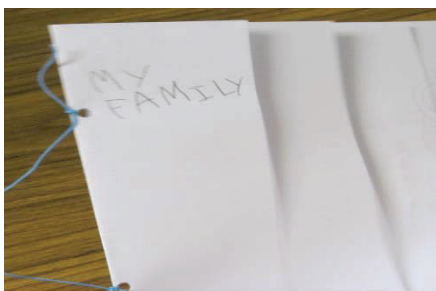


Photo 11: Take home book

We like to think of music and art activities that extend the storyline of our book. And, we have found that the children like to retell a story as they draw it or write it. You can design games, poems, and other activities to extend student learning. The folded book in Photo 11 is inexpensive and easy to make with folded paper. You can staple the edges or punch holes and secure the pages with yarn or clips. We find that children like to take home their work so they can show what they did at school, thus strengthening the bond between home and school learning.

Conclusion

It is common for teachers to talk about how we learn by doing. Based on our observation, we also learn a lot from reflecting. Reflecting on the why and how of writing a book and how you can share it with your students to promote their literacy is valuable. We learn by reflecting on the students' responses and use of the new information. Finding stories that relate to your students' interest and helping them learn more about the world and develop social and academic skills, such as literacy, will serve them well as they move into real world challenges. Yes, you should write a children's book for your students; both you and the children will benefit.

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Early Childhood Educators as Learners

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It has long been recognised that young children do not develop in a vacuum. Central to their lives is their family, the primary context in which their learning and development takes place, with implications for collaborative relationships between home and early childhood settings (Couchenour & Chrisman, 2014; Gestwicki, 2016; Keyes, 2002; Grant & Ray, 2010). Seeing children in the context of their family allows early childhood educators to recognise that home and school are joint entities. This enables an appreciation of the value of interconnectedness between the two, making it possible to establish closer connections with families and caregivers, and in turn fostering long-term positive outcomes in the young. Such an approach facilitates building family-like schools, in which every child is special and seen as an individual (Couchenour & Chrisman, 2014; Epstein et al., 2002; Epstein, 1995).

Successful collaborative practices are based on respectful relationships in which every family's strengths and contributions are noted and valued. To smoothen young children's transition to early childhood settings and foster meaningful learning experiences in the classroom, it is imperative that early childhood educators equip themselves with both knowledge and understanding of families' funds of knowledge, i.e., their work experiences, social practices, and social history (Head

Start Early Childhood Learning and Knowledge Center, 2019). In this respect, the work of Moll, Amanti, Neff, and Gonzales (1992) and of Moll (Head Start Early Childhood Learning and Knowledge Center, 2019) are particularly useful for early childhood educators when working with contemporary families, which present varying complexities in roles, relationships, and communication patterns. They suggest the need for a family-centred approach that makes learning more authentic for young children. In this approach, early childhood educators become learners as opposed to teachers. They invest time and effort in understanding every family's uniqueness, knowledge, and skills and in incorporating these in classroom learning experiences. These, in sum, facilitate meaningful connections between home and school, and add richness to young children's learning.

Seeking to actively understand family funds of knowledge requires time, effort, and know-how, and is thus a challenge to some. While there are several ways to gain information on funds of knowledge, a particularly useful tool for novice teachers is a family questionnaire (Edwards, 2016; Grant & Ray, 2010; Selmi, Gallagher, & Mora-Flores, 2015). Commonly used by family researchers, this is an excellent platform for early childhood educators when wearing a learner's hat. An easy-to-

use tool that can be adjusted to suit individual contexts, the questionnaire can include both open-ended and closed-ended questions (NAEYC, 2011). While closed-ended questions allow families to choose their response from a set of pre-determined answers, open-ended questions provide room for sharing their history and practices, thus allowing educators to better understand these families. Drawing up a list of information relevant to young children’s classroom learning experiences and consulting mentor teachers or experienced colleagues are especially useful when designing the questionnaire. While the ideal length of the questionnaire is debatable, what needs to be kept in mind is that families with young children experience time constraints as they juggle competing roles and responsibilities on a day-to-day basis (Couchenour & Chrisman, 2014).

Some General Tips

- Keep the survey short
- Adopt a friendly and professional tone
- Use jargon-free language

Informal face-face-communication is a valuable and offers an often underestimated tool for tapping into family funds of knowledge. Early childhood settings offer various opportunities for early childhood educators to interact with families and caregivers at different times during the

day. Pick-up and drop-off times are especially worthwhile platforms for becoming familiar with parents and caregivers. Although, these may not facilitate lengthy conversations, they do allow early childhood educators to become familiar with families and caregivers, and gradually learn about their family practices, thus setting the tone for a two-way relationship (Keyes, 2002).

Some General Tips

- Show interest in what they say
- Be an active listener
- Maintain eye contact
- Use jargon-free language

In essence, wearing a learner’s hat as opposed to a teacher’s hat and drawing from the funds of knowledge all families possess fosters meaningful learning experiences for young children in early childhood settings, and builds healthy home-school relationships (Edwards, 2016; Grant & Ray, 2010; Selmi, Gallagher, & Mora-Flores, 2015).

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Questioning Techniques in Facilitating Discovery of the World (DOW) - Science activities

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Children are often described as natural scientists (Pendergast, Lieberman-Betz, & Vail, 2017; MOE, 2012; Howitt, Lewis, & Upton, 2011). They are believed to be inquisitive, active learners who are capable of constructing knowledge by themselves (MOE, 2012; Ebbeck & Chan, 2011). The purpose of this paper is to share a participatory action research (AR) conducted by an early childhood teacher in a childcare centre. At the Centre, teaching of Discovery of the World (DOW) in the area of science does not build upon children's curiosity or their urge to interact and inquire; it is minimally guided and focused on conceptual understanding (Denjonckheere, De Wit, Van de Keere, & Vervaet, 2016). In fact, science in preschool has often been overlooked (Pendergast et al., 2017; Czerniak & Mentzer, 2013; Andersson & Gullberg, 2012). Researchers have raised questions about the quality of science education in early childhood settings (Fleer & Pramling, 2015). Thus, in this research, the challenge for educators is how to nurture children's innate curiosity through providing an engaging environment and appropriate learning experiences (Howitt et al., 2011).

Literature Review

In Singapore's national framework *Nurturing Early Learners* (MOE, 2012), Discovery of the World is one of the learning areas that supports children's holistic development. It helps to widen children's knowledge, acquire the necessary skills and understand the world they live in. It also lays the foundation for learning geography, history and science in the future. In this research, DOW is based on the area of science.

Research has shown that studying science in the early years may enhance and accelerate the development of many skills, including language, logic, and problem solving (Czerniak & Mentzer, 2013). In Singapore, the development and application of process skills are crucial in the preschool years. Watts, Salehjee, & Essex (2017) remarked that children without these skills are like prisoners of conventional wisdom. This will result in children accepting common beliefs as truths without questioning the originality.

Educators as facilitators of their children's learning should provide guidance and support through demonstrating, giving prompts and formulating relevant questions. Through the latter, educators are able to sustain children's ideas or interests, motivate them to think and develop inquiring attitudes (MOE, 2012).

DOW (Science) Theories

Prior to scaffolding the learning of DOW, three epistemological perspectives, conceptual, feminist and cultural-historical approach on how DOW should be taught to young children, will be discussed in this paper.

In a traditional science classroom, conceptual approach focuses on the mastery of the content taught and questions are usually asked as a form of assessment (Denjonckheere et al., 2016; Andersson & Gullberg, 2012). According to Vygotsky (1987), conceptual development cannot be mastered simply through memorising. It is difficult and impossible for young children to remember scientific concepts in their final form as there is a need for them to go through the process of understanding.

In the feminist approach, Andersson and Gullberg (2012) discussed that learning DOW is not merely learning the content or scientific concepts, but also connecting to the knowledge and experiences of the social practices of science, language and culture. Opportunities should be planned for children to inquire, analyze or de-construct the knowledge that was taught, thus feeling empowered over their own learning

However, learning DOW or science should focus on how an individual comes to know (process) than what he/she knows (product) (Czerniak & Mentzer, 2013). To Vygotsky (1987), learning should not be done in isolation. He believed that the basic everyday or spontaneous concepts intertwined naturally and lay the foundation for

scientific concepts, which are usually learned in a formal context and through the introduction of a more knowledgeable person. For example, the scientific concept of force can be learnt through everyday activities such as push, pull, pressure, friction and motion (Fleer & Sikder, 2014). Thus, in the cultural-historical approach, it is crucial to take into consideration the child's everyday life or play in relation to their social interactions with adults, peers, environment and culture (Fleer & Sikder, 2014; Howitt et al., 2011).

In addition, an important learning outcome for conducting DOW is to give children a sense of satisfaction and feeling of empowerment (Andersson & Gullberg, 2012). In order to achieve that, questioning techniques are essential skills to interact with children, draw out their prior knowledge, sustain their interests and challenge them to problem solve.

Questioning techniques

The questions an educator poses play a crucial role in every phase of children's scientific investigations (Harlen & Qualter, 2004). In *Nurturing Early Learners*, a good question is defined as one that supports discovery and critical thinking. It is clear and has focus. It also helps educators to assess children's achievement of learning goals (MOE, 2013). Questions can be used to facilitate children's exploration, check for understanding, invite curiosity, scaffold children's investigations, determine children's prior knowledge as well as stimulate higher order thinking (Lee & Kinzie, 2012; Harris, 2000).

Traditionally, educators base their questions according to Bloom's taxonomy (1956), on knowledge, comprehension, application, analysis, synthesis and evaluation; questions can be classified as higher or lower quality. Lee and Kinzie (2012) further defined how these questions help to stimulate children's learning process and expand their thinking skills. Lower quality questions refer to questions that require students to recall or name the facts; these elicit lower-level cognitive skills while questions that require students to predict or give a reason are considered as higher quality questions (Lee & Kinzie, 2012; Harris, 2000).

In their research, Lee and Kinzie (2012) found different factors that affect teacher's questioning skills. Teachers generally asked more closed-ended questions and more open-ended questions when conducting experiments. Different classroom contexts can also lead to different questions being asked and their frequencies. For example, in socio-dramatic corner, more open-ended questions are asked than during a reading activity. Another variable that can influence a teacher's use of questioning techniques is the class size. Teachers tend to elaborate more when they are with one child.

In addition, Lee and Kinzie (2012) found that in using questioning techniques as a scaffolding strategy, teachers have to base it on responses from their students. In this way, the teacher provides a contingent support by determining the level of the children's understanding and adapting supports/responses based on

the child's level. However, this area was significantly lacking in this research.

Thus, the purpose of this research is to investigate if a workshop for the educators helps in developing questioning techniques to engage children in DOW activities. The research question is "How would a workshop for the educators enhance their questioning techniques in Discovery of the World (DOW) - science activities?"

Research Methodology Design

The aim of the research is to investigate if a workshop in questioning techniques helps in the educators' facilitation of DOW – science activities. To ensure validity of the data, three methods of data collection were used in this research, namely: checklist, classroom observations and semi-structured interviews. The methods were used for both pre- and post-test. The purpose of the data collection during pre-test was to find out the difficulties educators faced when come to facilitation of DOW. Data was then collected during post-test to find out if the workshop on questioning techniques helped teachers to better facilitate DOW activities.

Data collection methods

Checklist

A checklist was designed to record the frequency of educators asking questions and also the types of questions educators normally asked. Some examples were questions that begin with "who, what, where, why."

Classroom observations

The responses of the children were recorded during the class observations especially after the teachers had asked questions. Each observation lasted 30 minutes. Reactions such as facial expressions, body movement or language and/or spoken language were recorded during pre-test while both educators' gestures and children's responses were recorded during post-test.

Semi-structured interviews

The four participants were invited to a one-on-one semi-structured interview. The objective of conducting the interviews was to find out more about educators' teaching practices in relation to conducting DOW activities. An example of the questions used in the interview was "Do you meet with any challenges when conducting DOW activities?"

Participants

In this research, the four participants were preschool educators from a childcare centre located in the east of Singapore. The youngest educator was in her mid-twenties and the most senior educator was in her late fifties

The range of teaching experience the educators had was from 3 to 10 years. Two of the educators were local while the other two were foreigners. Two of them were university graduates while the rest were diploma holders. All of them were

certified L2 teachers according to ECDA regulations.

Ethical considerations

Before commencing with the research, participants were informed of the purpose and aims of the study, how the results would be used and any consequences the study would have on their lives (Creswell, 2014).

The participants had the right to refuse to participate or withdraw at any time. The participants were ensured of their anonymity and confidentiality of their particulars or information.

Findings – Baseline data

All the data collected on the checklists, field notes on classroom observations and semi-structured interviews were collated below.

Checklist

The results collated from the checklist are tabulated and shown in Table 1. All the educators were aware of the purpose of asking questions and some asked a variety of open and closed-ended questions. The commonly asked questions often heard were related to "what", in seeking children's prior knowledge. Questions of "how" and "why" were only heard in Kindergarten classes. Some questions asked were used as classroom management such as "Who is not sitting down?" or "Where is your partner?"

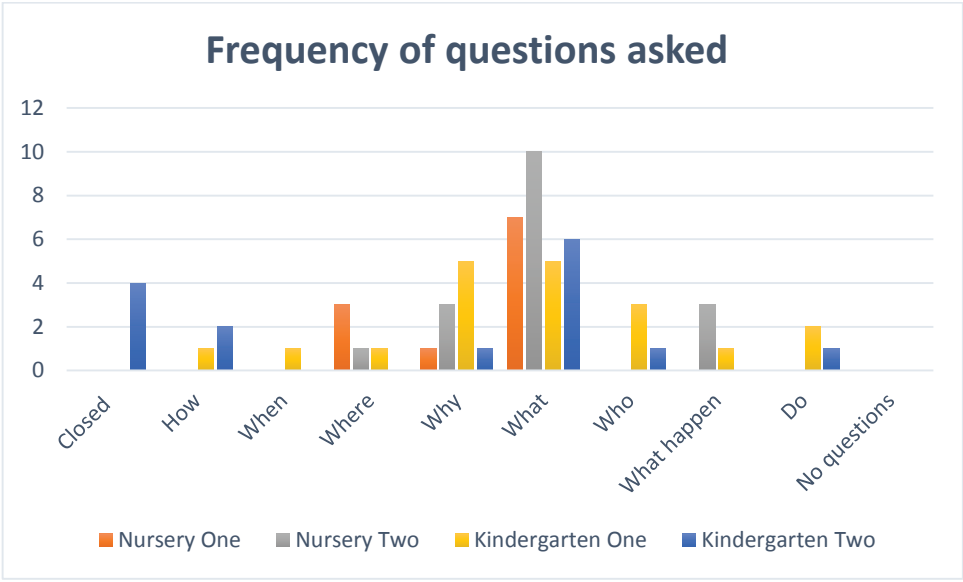


Table 1

Classroom observations

During the observations, children were found enthusiastic during their DOW lessons. Most of the time, they stood up in awe, wanting to share about the things they saw. The educator from Nursery one (N1) class was observed to repeat the same question a few times before the correct answer emerged. Often, the children were not responding to the questions as they were more excited to point to and name the animals they saw. The Nursery two (N2) children were calmer and able to answer the questions posed by the educator. They were seen walking in pairs and sharing what they saw with their peers. However, the educator tended to pose a question and answer it herself.

A story, “House for the Hermit Crab”, was read to the K1 children. They were encouraged to ask questions with 4W 1H (What, Who, Why, When and How). The children were attentive in the beginning of the story, but some got restless

towards the end. A few boys were more responsive; the educator asked a few opinionated questions and most of the time, children could express their preferences.

Most of the K2 children were observed responding spontaneously to the educator as their science activity involved food. Based on their prior knowledge, they were able to assimilate new knowledge with the old ones. “Smell like playdoh,” and “later will ah-choo!” were some responses from the children.

Some questions caused the group to be silent; similar behaviour was observed for all 4 classes. They were “What is this (bottle of herbs) made of?” and “Does it (the induction cooker) use gas or electricity?” As the children had no prior knowledge of the herbs and the induction cooker, the educator could have made use of these opportunities to challenge the children and get them to predict or to provide them with a probe. In fact, not

many questions were tapped on children's responses.

Semi-structured interviews

During the interviews, most educators enjoyed seeing or hearing the responses from children. Two educators enjoyed doing the experiments and one educator felt that DOW provided an authentic learning for children.

On the other hand, educators felt that different age groups have different challenges in facilitating DOW activities. For example, the N1 educator felt that when her students got excited, they would not wait for instructions and grabbed all her teaching materials. Her belief was reflected in her facilitation as she believed that children this age do not understand her questions. The N2 educator believed that the younger children needed to have vocabulary first before they could answer the questions. K1 educator was more worried that her experiment did not turn out well. Similar to Lee & Kinzie's (2012) research, the K2 educator was affected by her class size (21 students); she felt challenged with the classroom management when she started to ask questions. The children in her class would speak non-stop.

Action Plan and Implementation

Based on the findings and taking into consideration the child's everyday life or play in relation to his/her social interactions with adults, peers, environment and culture (Fleer & Sikder, 2014; Howitt et al., 2011), the cultural-historical approach towards teaching science in the Centre was used in this

research as it focused on interacting with children and it is similar to how the national framework (iTeach principles) has guided the early childhood educators.

In addition, guiding children through asking questions, directing their attention on the causes and effects or assisting them in with probes are parts of an interactive environment (Denjonckheere et al., 2016). Research has found that with appropriate science instructions through the support of a scaffolding adult, young children can participate in experiences that lead to the understandings of science (Akerson et al., 2011). Hence, the role of an educator should be transformed to helping children in constructing their own learning in a holistic, integrated and seamless way (Ebbeck & Chan, 2011).

In this research, a workshop was designed to guide educators in the Centre in using appropriate questioning techniques to scaffold children's learning and social interactions. The workshop was tailored based on the findings from the baseline data.

The workshop commenced with the sharing of the report findings. Each educator was encouraged to share about their facilitating experiences on DOW; this part of the workshop leveraged on educators with more teaching experiences to help the less experienced educators. The next part of the workshop was a brainstorming session on crafting different types of questions from simple to challenging. An example of a diorama was used as a case study for educators to practise their questioning techniques. The purpose of using a diorama was to help

educators to reflect critically and acts as a common topic to share amongst her peers. Educators were encouraged to craft challenging questions and probes to assist children in providing the vocabulary as well as think through the challenges in conducting such an activity. Educators were also encouraged to tap on children’s responses during the process of facilitation.

A workshop on questioning technique was conducted, after which educators were encouraged to implement their newly acquired skills by carrying out the

questioning techniques and post-data were collected.

Findings – Post-test

Checklist

The results collated from the checklist were tabulated and shown in the Table 2. The most frequently asked questions were the “what,” followed by closed-ended questions. Some examples were “Are you sure?” and “Is this a lion?” These questions checked on children’s understanding and determined their prior knowledge (Lee & Kinzie, 2012; Harris, 2000).

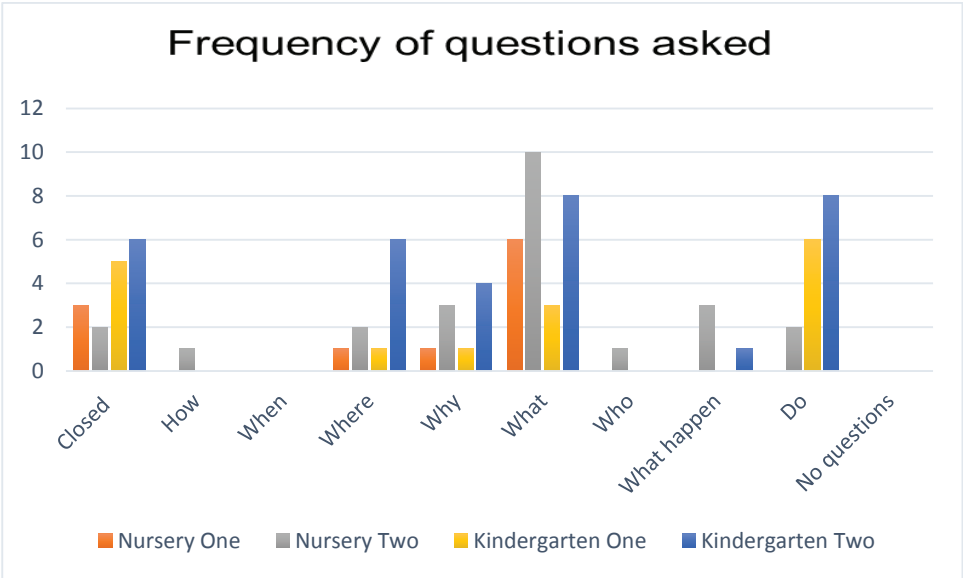


Table 2

Classroom observations

All educators were observed to tap on their students’ responses or questions, even for the N1 educator who used questions to correct her students’ responses, like “Is it inside or on top?” Some higher quality questions were asked in all classes; such as “Why are they endangered?” posed to a N2 class, and “Why can’t the chicken fly high?” posed to

the K2 children. To aid them in answering such questions, probes were provided to the children. For example, upon posing the first question, the N2 educator said, “I heard the word “hunted,” so the animals are hunted and ____.” Some answers came as “died” or “killed.” Similarly, the K2 educator continued, “Because they (the chicken) are ____.” Most of the children answered, “Fat!” Non-verbal

probes were also observed in K1 and N1 classes; the educators used gestures to guide the children in answering. The N1 educator used her hands to do wriggling movements when she asked, “What does a bear eat?”

In observing the K1 children, they were given “air time” as the educator passed a painted towel roll tube for each child to talk, speak or respond. In the N2 class, the whole facilitation on the topic of “endangered animals” was like a conversation as the educator frequently tapped on children’s responses. She even asked a child if she wanted to share anything with her peers.

Semi-structured interviews

The questions in the post-test were slightly different from the pre-test. One example was “Did you implement some of the learning (from the workshop) into your lessons? Can you name some of them?” The N1, K1 and K2 educators named “ask challenging questions and scaffold their learning” while the N2 educator said that she learnt to count to 5 when waiting for children to respond.

The educators were also asked about challenges they encountered during facilitation of science activities. N2 and K2 educators confidently said none while K1 and N1 teachers mentioned classroom management. They noticed that their students needed concrete materials.

All educators realised that children had different ways of responding to questions; some pointed and some repeated the same question to their educators. Most educators also realised the usefulness of

using probes after asking a challenging question.

Analysis and Discussion

The aim of the research was to investigate if a workshop in questioning techniques helps in the educators’ facilitation of DOW – science activities.

In comparison with the data gathered from the checklists, “what” questions were commonly and frequently used by the educators in both observations. However, more closed-ended questions were recorded in the post-test than the baseline. This could be due to the probes that the educators used to help children in answering the questions, for example, “Are you sure?” and “Is it a polar bear?” This result is congruent with Lee and Kinzie’s (2012) and Bay and Hartman’s (2015) research.

Similarly, both pre- and post-tests showed similar data in educators asking the “why” questions. These questions were recorded throughout all levels before and more after the workshop. This could be because educators realised the power of scaffolding through tapping on children’s responses and providing a contingent support (Lee & Kinzie, 2012).

Consistent with Lee and Kinzie (2012), the classroom context was one factor that influenced some educators and their questioning skills in this research. For example, the educator in the K2 class was able to ask a variety of questions in the pre-test as her activity was cookery as it involved observable changes while a lesser variety of questions were asked in post-test activities.

On the other hand, during the pre-test interview, the K2 educator shared that class size hindered her facilitation, this was mentioned as a variable in Lee and Kinzie's (2012) research. However, after observing the classes, the variable that influenced educators' facilitation was their classroom management. Before an educator posed a question, she would have thought ahead of possible ways to engage her learners. The K1 educator passed a "baton" around to give every child a chance to speak up; the N2 educator planned her questions based on the abilities of her students.

In answering the research question, "How would a workshop for the educators enhance their questioning techniques in Discovery of the World (DOW) - science activities?" data has shown that the workshop has served its purpose in scaffolding teachers' pedagogies. At least one challenging question was heard during the observations in each class, verbal and non-verbal probes were given to guide children in answering challenging questions and teachers were observed to be scaffolding children's learning when they tapped on their responses.

An ideal science lesson should be like having an interactive (Howitt et al., 2011) conversation with children and giving them a sense of satisfaction and feeling of empowerment (Andersson & Gullberg, 2012). In this research, the N2 educator had successfully carried out such a lesson.

Limitations

Limitations are shortcomings or influences that are beyond the control of a researcher (Creswell, 2014). Similarly, in

the research, there are some limitations that have directly or indirectly affected the data.

First, the learning speed of an educator has to be taken into consideration. Educators with more years of teaching experiences are able to internalise the content of the workshop faster than educators with lesser teaching experiences. For example, after the workshop, the N2 educator used different probes to interact with the children. Some children were able to answer her questions because of this. She also used questions to direct children's attention to the items that she wanted to show them; she also had easier questions which catered to children who learn at a slower speed. However, the N1 teacher needed more time in acquiring, implementing and trying out the skills.

Science was conducted once a week and this posed a challenge when guiding teachers in the teaching of science to the nursery children. Even more challenging was the fact that there were little to no opportunities to learn about science for early years (Denjonckheere et al., 2016) as well as the limited language skills of the younger children. Findings of a research report that is congruent with Vygotsky's theory (1978), everyday activities such as playing with playdough create opportunities for developing small science concepts in toddlers' everyday life (Fleer & Sikder, 2014). More science activities should be integrated into daily lessons; in addition, the N1 educator needs more encouragement to venture out of her comfort zone of following lesson plans strictly.

Conclusion

As the phrase goes “Research informs practices,” there are a lot of learning points through the AR journey which has helped to define and bridge gaps as well as improve processes in the centre.

Action Research is an authentic experience and also a realisation that there is rich and valuable data in the Centre. Hence, there is a need to continue to look and relook at processes to improve on practices.

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Recruitment, Retention and Attrition of Early Childhood Educators: Additional Polices Required to Reduce Movement Within and Out of the Industry

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It is unambiguous that early childhood education is vital, not only in enhancing young children's developmental outcomes and preparing them for mainstream education, but developing underpinning qualities for learning and growth throughout their lifetime (Tan, 2017; Ang, 2014). Behind the establishment of early childhood education, teachers play the most significant role in building and upholding the quality of the early childhood education (Pek-Greer & Wallace, 2017; Ang, 2012).

The Singapore Context

In the last 50 years of nation building, the early childhood care and education (ECCE) sector in Singapore has transcended from the earlier "*Survival*" and "*Efficiency*" phases into the current "*Ability and Student Centred, Values-Driven*" phases (Khoo, 2010; Lee, Hung, & Teh, 2016). The Singapore government has invested heavily in the ECCE sector, setting up early years centres and kindergartens in ensuring the affordability and accessibility of early childhood services to the public (Craig, 2017; Lim & Lim, 2017). With this rapid expansion of the ECCE sector the fraternity is in dire need of teachers or Early Childhood Educators, as they are

officially termed in Singapore (Pek-Greer & Wallace, 2017). This paper will look at the efforts that have been put in place to recruit and retain EC educators in Singapore, measures to reduce attrition within the industry and what more can be done to grow and maintain the workforce which is imperative in ensuring the quality of the Singapore ECCE mission.

Studies on Attrition and Retention in Singapore

Human resource is a valuable asset in most trades and more so in education. Having trained teachers leaving the vocation is costly, unproductive and a waste of resources, not to mention the negative impact on quality early childhood programmes and child development, especially for very young children (Buchanan et al., 2013; Ang, 2012). Knowing the reasons why EC educators choose to leave the profession will provide some answers to reducing the attrition rate (Luekens, Lyter, & Fox, 2004). In the U.S.A and other developed countries, Teacher Follow-Up Surveys (TFS), a longitudinal study tracking teachers throughout their professional career, had been used to understand why teachers switch schools or leave the vocation at different stages of their

career and the motivating factors that kept them in the profession. In Borman & Dowling (2008), Buchanan et al. (2013), the researchers found four main factors that influenced the attrition and retention of teachers namely:

- 1) Teachers' personality coupled with their training and qualifications – teachers with higher qualifications and training were more likely to leave than their lower qualified counterparts.
- 2) Teachers' demographics and experience throughout their professional work life – 45% of teachers quit teaching during the first 5 years of their career.
- 3) Working conditions such as low salary, high workload and lack of resources.
- 4) Other conditions such as lack of professional networking, career growth, decision making and support from school management.

Through literature review, the writer had not found any such survey done in Singapore. Studies on the attrition and retention of teachers in the ECCE sector in Singapore were also very limited (Pek-Greer & Wallace, 2017). For this paper, we will look at the results of some studies with similar situation as Singapore and extrapolate the readings to local context. We will look at the issues in the following aspects:

- pre-service recruitment and training
- working condition
- professional growth and progression pathways
- professional status and engagement

Pre-service Recruitment and Training

For primary and secondary education, the Singapore government, through the Ministry of Education (MOE), has direct control in terms of teacher recruitment, pre-service training, work assignment, professional development and progression (MOE, Career Information, 2017). This seamless and wholesome system has won praises from around the world and placed the Singapore education system as one of the highest-performing school systems in the world (OECD, 2011).

Comparatively, the recruitment and employment of EC educators in Singapore is more fragmented and dependent on market forces (Lim & Lim, 2017). The recruitment and training of pre-service teachers is conducted by some private as well as government-linked institutions such as the polytechnics and Institute of Technical Education (ITE) (Tan, 2017). In general, the recruitment effort is targeted at two groups of people - one group being secondary school leavers at 16 years old, applying for tertiary education in the two polytechnics that offer the Diploma in Early Childhood Education and Care programme or the ITE for the Advance certificate in Early Childhood Care and Education programme; the second group of targeted individuals are university graduates and mid-career switchers who could be trained in similar programmes at accelerated speed (ECDA, 2018). In 2008, the sector experienced an upsurge in pre-requisite entry requirement for such courses, indicating efforts to uplift the quality of EC teachers. In line with the

national workforce masterplan, these pre-service preparation courses conducted by the private institutes had to comply with the Workforce Skills Qualification (WSQ) system in 2014, to attain quality assurance and to be in tune with industry needs and standards (Tan, 2017; Lim & Lim, 2017). With the setting up of the National Institute of Early Childhood Development (NIEC) in 2019, the pre-service training of teachers will be more streamlined which will help in attracting more people to consider early childhood educator as a career (Yuen, 2017).

All these are good initiatives to warrant a quality workforce. However, more needs to be done to attract the appropriate candidates for training and retain them in the profession after training (Mohandas, 2017). Currently, in addition to meeting the pre-requisite entry requirement for the courses, school leavers have to undergo an interview with a panel to ascertain their aptitude for the course (Ngee Ann Polytechnic, n.d.). In the report (OECD, 2011), it is suggested to expand the selection process such as preparing lesson plans, demonstrating teaching skills and working as a team, to identify the most promising candidate. The report also encouraged the recruitment process to place weighted emphasis on essential teaching qualities such as passion, empathy, embracing differences and responsibility, in relation to conventional criteria like qualification. During training, attitudes needed to be an effective teacher should be highlighted frequently to motivate the learners (Colker, 2008), in

addition to the knowledge and skills required for the job. Learning from aspirational teachers, whether to see the person in action or to hear his/her experiences through seminars will be opportunities to inspire the learners to reach their potential as an educator. This will also help to close the gap between theoretical learning and actual practices so that EC graduates will be better accustomed to their first job after graduation, thus reducing attrition rate (Ang, 2012).

The introduction of the 'Place and Train' scheme in 2014 by the Workforce Development Agency (WDA) and Early Childhood Development Agency (ECDA) was an effective way to attract mid-career switchers as they would be paid to work and study concurrently (ECDA, 2014). Being able to apply what they learned in class immediately at the work place and resolving issues met at work during class discussion and sharing were invaluable opportunities for learning. Some EC employers would offer training scholarships for their selected candidates to attend full-time or part-time pre-service training with a service bond after completion of their training. These service bonds commit the EC graduates in the industry for the early part of their EC career which helps to retain young teachers in the industry.

Working Condition

Remuneration is an essential contributing factor for teacher attrition rate, both within and out of the industry. EC educators are paid significantly lesser than their counterparts in the formal

education arena (Lim & Lim, 2017) and other jobs prompting early career teachers to leave the trade (Mohandas, 2017). Those who stay within the EC sector would leave their organisation for another EC setup in pursuit of small pay increments. This situation has resulted in high attrition rate within the industry and staffing cost is fast becoming the top expenditure of early childhood establishments (Ang, 2014). In helping to keep EC services affordable, the Singapore government subsidises operators' operational cost with the condition that the selected operators must keep their fees at an agreed and relatively low rate (ECDA, 2017). If this salary war is allowed to continue, the national mission of maintaining affordable EC services may be very expensive due to the increasing cost.

In the highly successful primary and secondary Singapore education model, all trainee teachers are paid a salary by MOE during their training period. They are obligated to serve as teachers for at least three years after the completion of their training and would be assigned to schools based on the school's needs. There is a well-structured salary package based on qualification, performance and experience. This had been an attributing factor to Singapore's success story (OECD, 2011). With the setting up of NIEC in 2019, it would be an appropriate tenure for the government to look at the possibility of a similar system whereby trained EC educators would come under the payroll of NIEC or a relevant government ministry. In this way, teachers are assigned to the schools

based on their respective needs and teachers would have to supply evidence for transfer request. With a standardised pay scale, teachers can then focus on the important task of delivering quality EC curriculum and more importantly, children will benefit from the stabilised workforce. When salary is reasonable and comparable to general workforce, the dropout rate from the industry will taper (Ang, 2012). Instead of subsidising operator's expenditure and having to allocate resources to monitor the compliance from these selected operators, it should be worthwhile for the Singapore government to weigh the advantages of shouldering the teachers' remuneration instead, which would be more direct and effective in capping cost in the long run. With this 'central teacher registry system', there are worries that the Singapore EC scene will be nationalised. This does not have to be the case as the schools can still operate their customised programme and provide supplementary training to their teachers according to their programme needs.

Besides remuneration, working condition would include work environment, working hours, job responsibilities and workload, job satisfaction, collegial and leadership support (Pek-Greer & Wallace, 2017; Borman & Dowling, 2008; Buchanan et al., 2013). These are factors which ECDA envisioned to improve (Masood, 2017).

Professional growth and progression pathways

Studies have shown that the lack of professional development will hamper

the delivery of quality EC programmes and a decline in educator's contentment, which can lead to attrition (Pek-Greer & Wallace, 2017; OECD, 2011; Borman & Dowling, 2008; Buchanan et al., 2013). Singapore EC operators under the AOP schemes where operators that received operational cost funding must ensure their teachers fulfil minimum hours of continuous professional development as one of the condition for renewal funding. For preschools to attain SPARK accreditation, an endorsement from ECDA that the preschool offers quality programme, the schools must ensure teachers are adequately supported in professional growth either through in-house training, peer sharing or attending courses and seminars (ECDA, 2015; Jing, 2017). The government has an undoubtedly huge financial commitment to professional development for the EC Educators (Rashith, 2018). The question to ask is 'Can the current courses satisfy the teachers' needs for professional growth?' We will require a survey to evaluate this.

ECDA, working jointly with SkillsFuture Singapore (formerly known as WDA) had formulated professional pathways and career progression for the EC sector (SSG, 2017). The pathway is aspiring but only applicable to larger organisations that can create the layers for advancement. The smaller outfits will find their ambitious teachers leaving for better opportunities.

Professional status and engagement

For a long period of time, Singapore EC educators have suffered a low

professional and social status partly due to low qualification, lower-than-other-profession pay and job scope as they are viewed as high-class baby-sitters (Ang, 2012). With recent emphasis on early childhood education and the various programmes set up by the Singapore government to attract entrants to the industry, the professional image of the EC educator has been elevated. It is now time for the EC educators to portray the positive professional image to commend respect from those outside the industry and this can only be realised through professional development (Jing, 2017)

Maslow's hierarchy of needs states that when physiological and safety needs have been satisfied, the person will require social recognition. Hence, mid-career teachers will have differing needs from early career teachers. Studies have shown that some teachers cited leaving their schools as they do not find gratification in exerting their opinion, either because the school does not support such initiatives or there is no avenue for propositions (Borman & Dowling, 2008; Buchanan et al., 2013). To retain such teachers, the administration and management of the schools should involve the teachers in decision making and engage them in curriculum and programme development such as EC action research (OECD, 2011).

Conclusion

It is timely that Teacher Follow-Up Surveys (TFS) should be conducted in Singapore to better ascertain the issues facing teacher attrition and retention. There is a need to review the teacher

recruitment process to attract the appropriate candidates and teacher training content and process to close the gap between theory and practice. These measures will help to reduce the chances of early career teachers leaving the profession. It is recommended that a national pay structure be established and for the Singapore authority to centrally manage the teacher resource. With quality training and professional growth, EC teachers must have the confidence to eliminate the previously less-than-desired image and portray a positive and professional impression. There is a need to evaluate the needs of senior teachers and allow them to exert more influence in educational decisions.

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How Reflection Impacts Preschoolers' Learning

Charmaine Lee
Pro-FLAiR

In the final term of the school year, I introduced a change in my FLAiR class. At the end of each FLAiR lessons, I introduced reflection to the children.

The reasons for change

At training session, a fellow Pro-FLAiR shared that her children were making wonderful progress in their ability to reflect. What a novel idea this was; I wanted to adopt it as I felt it would be good for my children to learn and practise this ability to reflect and become more self-aware. I wanted to create positive experiences by pointing out the child's good qualities and attributes.

Through the process of reflection, I envisioned that the child would become more attuned to his/her own feelings, thoughts and actions and to also recognize his/her own strengths.

Implementing the change

I talked about the activity of reflection with the children and explained that reflection was about thinking - thinking about what they did well in FLAiR and why they deserved a sticker. At first, they were not used to this concept of taking note of small successes, so they tended to bring up what their friends did badly. I constantly

reminded them to mention only things that they did well in. After a few days, they were able to recount only the positive. I also reminded them to listen while their friends were sharing their reflections; everyone also had to be calm so that they were in a correct state of mind that encouraged them to focus.

Children's responses to the change

Some really looked forward to the activity of reflection and they would feel disappointed if we ran out of time and did not have the opportunity to do the reflection activity.

Excerpts from the children's reflections:

17 Sept 2018

Child S: Today, I sit properly, I listen.

Pro-FLAiR: Yes, you also answered questions and participated.

Child J: I sit properly.

Pro-FLAiR: You also paid attention.

Child L: I stay on the sun*.

Pro-FLAiR: You also joined in.

*Teacher-made chart showing symbols for different behaviours; the Star means excellent behavior, the Sun is for good behaviour, Rainbow for not so good behavior and Thunder for terrible behavior.

Child A: I stay on the rainbow because I not listen.

Pro-FLAiR: Your behaviour has improved; I noticed it.

Child I: I sit properly.

Child J (interjected): Child I also pay attention I think.

Child S: Child I also listen to story and pay attention.

26 Oct 2018

Child J: I answer question very well. I listen to story and I join in all the things.

Pro-FLAiR: And you said kind words to Child L.

Child I: I don't know...

Child L (offered to help): Child I do very good and he join us (in) the things.

Child A: I do very well, I help Child I when he fell down. I do all the things.

Child L (disagreed): Are you sure? I enjoy the story, I pay attention and I answer questions.

Pro-FLAiR: Yes, you did do well. You should not say to Child A "Are you sure?". That will not make her feel good about herself.

Child L nods his head.

7 Nov 2018

Child I: Child S sit well, she did everything correctly.

Child S: Child I paid attention and did everything good.

Child L: I don't know.

Pro-FLAiR: Child L showed kindness, he shared a book with Child S. He also listened to instructions and participated enthusiastically.

Child J: I pay attention, I bring the book* for all of you. (*book about bugs, he had brought this book from home to share with his classmates).

Pro-FLAiR: Child J is very kind to share his book with us and is able to let others choose the page to read.

Before FLAiR ended for the year, I asked the children what they liked about FLAiR:

Child J: I like the game, reflection, all the activities like making and decorating a cookie, making lemonade.

Child S: I love the activity, reflection, calendar, story, the new words, buddy reading.

Child L: I like to celebrate a small celebration. I like to read stories.

Reflections

(a) The children's learning -

Some children were more reflective and more aware of their own feelings, thoughts and actions.

Some had started off seeing themselves as rule followers and, over time, they saw themselves as being active and successful

participants in the FLAiR class.

I also observed that some found it difficult to assess their own thoughts, feelings and actions. I wondered if they were more used to suppressing their emotions such that it was challenging to get in touch with their real feelings and thoughts. It was interesting to observe children who were not able perform self-reflection could often help other children, for example in pointing out what they did well.

Through this reflection activity, some children grew to understand and talk about their own feelings.

(b) My professional and personal growth –

It gave me confidence when I saw how it helped the children celebrate small successes and how they became more aware of their thoughts, feelings and actions. The process of reflection helped the child acquire the skill of self-awareness. With self-awareness, they think over things that happened and find ways to learn and benefit from them.

When the children shared their reflections, I modelled the thought

process by affirming where they did well. Other children spoke up to help point out where their classmate did well. For the child who is not yet able to self-reflect, he or she hears what his peers perceive well of him.

There were also moments where I could step in to show the children how to interact appropriately. When Child A said “I do all the things” and Child L sneered, I showed Child L that his tone of voice and comments could hurt Child A’s feelings.

As a Pro-FLAiR, I also practise self reflection because it helps me to assess what has worked to help the student learn. In this way, I can refine and adjust to become a more effective Pro-FLAiR.

FLAiR stands for *Focused Language Assistance in Reading*. FLAiR is a language and literacy programme developed by MOE in 2006 to provide focused support for Kindergarten 2 (K2) children who have difficulties in learning English. These children may lack opportunities at home to listen and speak in English as well as reading materials in English. Pro-FLAiRs are para-educational professionals who spend dedicated time reading, conversing and conducting language-focused activities with identified children.

The Importance of Teaching Effective Communication Skills to Children

Judy Toh
Pro-FLAiR

I took a step back and reflected upon my handling of conflicts whenever it arose among the children in my FLAiR class.

What did I do previously?

For me, conflicts among children were nothing short of a nuisance. It got in the way of my lesson plans. My FLAiR lesson could be as short as 30 minutes. Because of this, I would brush conflicts aside as quickly as possible, demand that the offending party apologised and then quickly moved on with the lesson. What I had failed to see was that I had lost a teachable moment; I had not made time to listen nor shown respect for the children's feelings when I brushed aside grievances they had brought to me. In my rush to cover the curriculum, I had not been teaching the children effective communication skills.

I have since learnt that it was crucial to make time to communicate effectively by using positive language so as to build warm and respectful relationships. Feelings should be acknowledged, not ignored. Confrontation could be handled better and resolved calmly if we used effective communication. It thus became my priority to take time to teach effective communication skills.

Implementing the changes

I looked at the many ways about how to teach communication skills to the

children. I decided, in our FLAiR context, to focus on five points:

First, effective communication skills require the use of specific words. I had to ensure everyone understood, that no one person could read one another's minds. We are not telepathic but often we (mistakenly) expect others to understand what we meant and we show our impatience, for example by clicking our tongues, giving an icy stare or even when we gesticulate. We cannot expect others to know our intentions if we do not articulate it with words.

In class one day, Child M was irritated by Child D for sitting too close to her thus intruding into her personal space. She clicked her tongue a few times and said, "D!" Child D did not understand her. I intervened, "M, you'll have to explain to D what you are unhappy about. He doesn't understand what you meant. So, let's use our words and explain to him." She responded with "Excuse (me) D can you move?" D moved away. The situation was quickly diffused in a calm and pleasant manner.

Secondly, effective communication skills require us to listen carefully and sensitively. Good communication skills involve careful listening. This applies to both the children and the teacher. Sometimes, we do not listen because we are in a hurry to get things done. If we continue doing that, we may send out the

message that feelings are not important, tasks are more important. That contradicts the goal of raising a future generation who are kind and empathic. Once, a child, looking sad, told me that her hamster had died. It was clear that she had wanted to talk about it. However, instead of giving her that opportunity, I merely nodded and carried on with the lesson. Upon reflection, I did not show empathy and kindness to the child. Recently when SH came up to me and said, "I am sad." I took the time to ask her why. It turned out that it was because P and S were not listening to her. I said to the other two, "SH said she is sad because you were not listening when she was talking." Immediately, they apologised. SH acknowledged it and was happy again. All these did not take up as much time as I had mistakenly thought.

Thirdly, effective communication skills require us to stay calm at all times. If communication is oppressive, it would take a toll on self-esteem and relationships. Shouting only escalates the problem, not solve it.

Effective communication skills require us to be a conscious of our speech and actions at all times and we become good role models for the children. Children tend to learn or imitate what they see and hear. I had a tendency to use the children's stationery, without their permission because my teacher did that to us when we were students. One day, I helped myself to a child's pencil and she protested, "Hey! That's my pencil!" It was then that I realised what I had been doing. I had failed to model for them the correct behaviour with regards to personal

property. From then on, I would make it a point to respect a child's property and would ask for permission first. By doing this, they would learn to treat other people's or public property with respect and grow up to be civic-minded people.

Lastly, effective communication skills require us not to jump to conclusions but to take time to seek to understand the situation by asking "what happened". This shows that we are seeking to understand and not pass judgement immediately. This will help the child to reflect on their behaviour and learn to self-regulate. One particular day in school, the class teacher shared with me that Child M had pinched Child A a few times. Instead of taking on a judgemental stance, I asked Child M, "What happened?" She did not reply. "Did you pinch A?" She nodded her head. "Why?" She replied, "I don't know." "How do you think A feels?" She replied, "Sad." Then I asked, "Did you say sorry to her?" She shook her head. "Would you like to say sorry to her later?" She nodded. The next day, another child, Child G, showed me a note that Child M had written to her. It read, "I am sorry." I asked Child M, "Why did you write 'I am sorry?'" She replied, "Because I always make G (angry). So I write I am sorry to G."

I was very impressed to see results so quickly. This happened only after a few weeks of teaching the children effective communication skills. This showed that Child M reflected on her behaviour in school and on her own initiative, wrote apology notes to her friends. She also wrote me a note "To T.J. I love you so much because you are kind". I checked

with her class teacher and she said she had nothing to do with this note. I also asked if she had noticed any change in Child M to which she replied “Yes. She’s also more helpful and asks others if they’re feeling okay.” Child M saw me role modelling kind behaviour and she learned to be kind to her friends. When children learn effective communications skills, they will also learn to reflect and self-evaluate. For Child M, she became more thoughtful about her decisions and actions and this helped her to regulate her behaviour.

Conclusion

Looking back, even though I only implemented this change in the fourth term, the changes in the children’s behaviour were obvious. They were calmer; they used their “listening ears” and became more self-aware and more thoughtful of how their actions affected others. They got along better with each other, they began to treat others with more respect and kindness and they have

tried to see things from the point of view of others.

I too became more conscious about being a good role model of the language; more careful about listening and not jumping to conclusions, seeking to always understand first. Sometimes we tend to forget that we are teaching children, and not just a subject. Oftentimes too, we forget that what they learn from us do not just come from books but by observing the way we behave and speak. When I decided to teach the children effective communication skills, serendipitously, I got them to stop and examine their actions and think about their experiences. They learned to reflect and self-evaluate and by doing so, it helped them to regulate their future actions and decisions. I believe, in time, this skill will equip them to make good decisions, solve problems and resolve their own conflicts. It augurs well for a future generation to become independent learners who can be self-reflective, self-aware and self-regulating.

Reflections on AECES Japan Study Trip 2019

Vanessa Kong
Heartfield Kindergarten

In March 2019, AECES organized a study trip to Tokyo, Japan where participants got to visit different places of education. The study trip was eye-opening as each visit brought about new insights and broadened my view of early childhood education and how it is carried out in a different culture.

Fuji Kindergarten

Our first visit was to Fuji Kindergarten, a preschool that is world-renowned for its architectural design. While the preschool subscribes to a Montessori approach, the Reggio Emilia approach to education where the environment acts as a third teacher is apparent in the school's design.

The large circular roof serves as the playground – there is none of the usual playground equipment, so the children rely on their own creativity to create their own games. The open-air space also means that the children are constantly exposed to different elements of nature during play (e.g. blooming sakura trees in spring, falling snow in winter). Having a natural space that is evolving allows children to navigate through the changes and challenges that come with it.

The wide, open field in the middle of the school is deliberately bumpy, so that the children learn how to balance after falling for a few times. There are also taps scattered around the field which the children use to wash their hands/feet.

The unique characteristic of these taps is that they have no sinks underneath them so that the children will be reminded to turn off the taps immediately after use, otherwise the water will continue splashing on the ground.

Fuji Kindergarten is a superb example of how the environment plays an important role, and that every aspect of the school environment should be planned in an intentional and deliberate manner. This ensures an organic way of learning where each child develops independently and at their own pace. It also allows children to cherish their surroundings as it has become a space where they invest their imaginative energy, as compared to the usual structured spaces that are created by adults (Rasmussen, 2004).

Yahata Youchien

We had the privilege of visiting this preschool in the morning and witnessing how they begin their day. Upon entering the school, we were greeted by an incredible flurry of activity. At first glance it seemed chaotic, but the teachers had split the children into small groups doing activities at different corners of the large common room. There was an indoor obstacle course, a playdough table, a Lego corner etc. – it was impressive how the teachers kept their calm as they interacted with their group of children. My favourite corner (which I have since

interacted with their group of children. My favourite corner (which I have since also implemented in my own classroom) is the recycled materials area, where there is a wide assortment of recycled materials that the children use to create art pieces. The children were just 3-4 years old, but they were adept at using tools like the scissors and tape dispenser to create art of their own imagination. While it might be common to have a recycling corner at school, Yahata Youchien took it to another level by encouraging the children to create beauty out of waste.

The school's philosophy also left a deep impression – taking care of the whole family, not just the children. This means that there is parental involvement on many levels, including having the parents organize school events and having stay-home mothers tend to the school garden. The principal also recognized the need for stay-home mothers to have a community for support, thus she organized weekly infant/toddler playgroups where these mothers can ask her for advice and have social interactions of their own.

Sony Education Foundation

Visiting Sony seemed like an odd choice at first as it is not a school and we had to do the mandatory tour of viewing the types of products they have (which turned out to be enjoyable as we got to try their AR technology and saw robot dogs) but the presentation done by the president of Sony Education Foundation changed my mind. The foundation is committed to fostering a “scientific mindset” among children and their efforts to do so are

remarkable. One such example is the Sony Educational Support Paper, a yearly affair where they encourage teachers from all over Japan to submit their best practices on imparting scientific knowledge to children, preferably in interesting and creative ways to get children excited about science and discovery. These papers are then compiled into a publication that is distributed to schools, inspiring teachers to carry out these activities in their own schools.

Coming from a country where our culture teaches us to keep success to ourselves so that we will not lose out, sharing of ideas and best practices actually helps the industry to progress. When educators collaborate with one another, it enables us to constantly improve and innovate. Most importantly, sharing of best practices benefit children in their development and growth. We need to cultivate a learning environment in our own school where sharing of ideas is natural and instinctive.

Aozora Hoikuen

We were initially supposed to visit Taiyonoko Hoikuen, but we ended up at their sister school Aozora Hoikuen instead. Unlike most preschools that have bright and cheery exteriors, this preschool is painted in inconspicuous colours and there is little indication outside that this is a preschool. We later learnt from the principal that it is a conscious effort on their part to blend into the neighbourhood instead of sticking out like a sore thumb. The school also has

low fences and large glass windows so that the community could interact with the children better and vice versa. While this may raise security concerns, it fosters a sense of belonging and identity, as well as a better understanding of their community.

This school also practices inclusion in that they accept children as they are and empower them to develop at their own pace. There is occupational therapy equipment installed so that they can help children with their gross motor skills and sensory integration. There are also quiet corners around the school where children may retreat to when they find challenges in managing their emotions. Some corners have books in them while one of them even has a fish tank inside, helping to calm children down.

However, my biggest take-away was how they structured their art programme. The school collaborates with art university students, who come in to conduct different projects with the children. One of the ongoing projects was placing a local artist's paintings and sculptures all around the school, creating an atmosphere where art is easily accessible to the children. The children become little curators who get to touch, feel and examine the art pieces. They are also given the autonomy to pick the pieces that they like for their classroom. The school subsequently even invited the artist to do a painting while the children observed him. The school's approach to art is indeed inspiring as they help to cultivate interest in art beyond the artwork that children commonly do in school. It helps children to see that art

can be everywhere and that it is not just for adults. Collaborating with art students is also a brilliant approach as it ensures a constant flow of ideas for the children to learn about different aspects of art.

Musashino Higashi Dai-ni Youchien

Our last school visit of the trip, Musashino Higashi left a deep impression as it is a school that accepts a high rate of children with autism. The school practices a "mixed education system" in that the children with autism join the other neurotypical children for large group activities such as singing, sports, mealtimes etc. There is an emphasis on having the children learn through real and meaningful experiences of daily activities, and in the process they grow to be independent and self-reliant.

The school is intentional in helping the children to develop to their fullest potential, regardless of their learning abilities. While we were there, the children were rehearsing for their graduation ceremony by singing songs together. The children stood in a circle around the large hall, holding hands while singing. Meanwhile we could see some teachers who were holding on to children who had difficulty staying still, some of them bringing the children for walks to calm them down. The principal explained that children with autism have individual reactions to certain things and the teachers constantly try different methods to connect with and understand them. The love and patience shown by each teacher was evident and it reinforces the fact that teacher-child interactions are

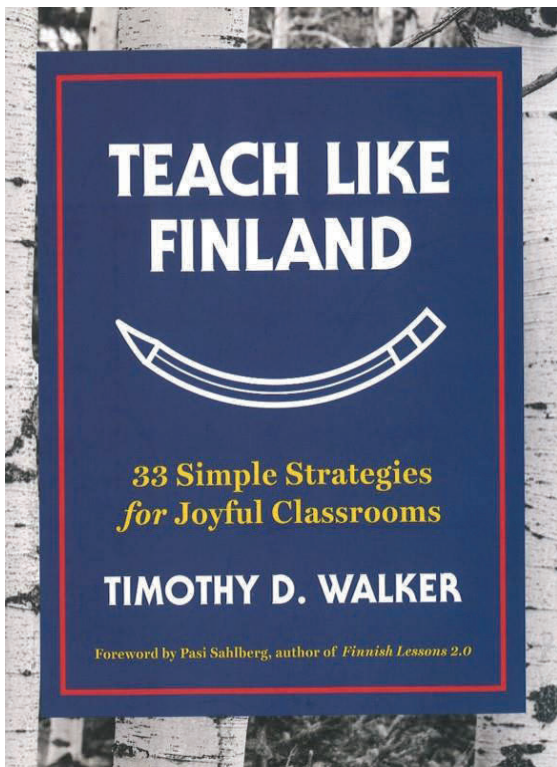
crucial in a child's achievement. Children with higher quality relationships benefit by having greater levels of success in life (Pianta & Stuhlman, 2004).

Conclusion

While there is much to learn from these Japanese preschools, there is a question that we must first ask ourselves – what are the values that we wish to impart to our children? Having witnessed how these schools value socio-emotional development, community, environment, discovery, creativity and inclusion, it is evident that these are not values that are immediately intuitive to most schools in Singapore. We must progress with these values in mind, instilling in the children a sense of responsibility towards self, the community and the natural environment.

References

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On December 4, 2001, the first PISA* results were published and among the member nations of the OECD, Finland was the highest performing in all three academic areas: Reading, Mathematics and Science. Although the academic results of Finland’s fifteen year olds fell in the 2009, 2012 and 2015 PISA cycles, the PISA data broadly reveals that the Finns consistently achieve high learning results irrespective of their student’s socioeconomic status. What can we learn from the Finnish system?

*PISA is the OECD’s Programme for International Student Assessment. Every three years, it tests 15-year-old students from all over the world in reading, mathematics and science. The tests are designed to gauge how well the students master key subjects in order to be prepared for real-life situations in the adult world. [<http://www.oecd.org/pisa/>]

A Book Review

by Alice Yeo

In his book, Teach Like Finland, Timothy D. Walker provides 33 simple strategies for joyful classrooms. A joyful classroom enables successful teaching and learning to take place.

Burnt out, Timothy D. Walker left his hectic teaching in Boston with his Finnish wife for Finland to get a break. He was thankful to land a two-year teaching job in a Finnish School where he taught 5th year graders - our equivalent of 11 year olds or Primary Five students. In Finland, he discovered a completely new culture.

In this book, Walker writes about five broad categories, describing practice in Finnish schools and which have worked towards their youths doing consistently well in their PISA scores. These five categories are well-being, belonging, autonomy, mastery and mindset:

1. ‘Well being’ is seen in the way teachers and students take brain breaks of 15 minutes after every 45 minutes of lesson. Teachers are refreshed and children become more focused after the break. Teachers assign homework that is simple and completed quickly. Students spend time out in nature which is calming and which aids their cognitive learning. The learning environment is relaxed and the child is allowed time to work quietly.
2. In the category ‘belonging’, there is a welfare team of teachers who get to know the students through home visits

- and teacher-students' play. The teacher also gets the children to come up with ideas and pursue a class activity together. The bullying issue is centred on problem solving: how you behaved and how you could have behaved differently. A buddy up system is set in place where older children get to accompany the younger children on field trips and be responsible for their well being.
3. In 'autonomy', children are given freedom through choices to own their learning, as owning one's learning makes a great difference in effective learning. There is a conscious effort to link student's interests with the curriculum. Essential knowledge is taught but tasks assigned are more open-ended. The emphasis on teacher accountability is shifted to student responsibility since taking responsibility is an important skill students need in life.
 4. One becomes happy when 'mastery' (or competency) is achieved in a particular area. Teachers make use of good teaching resources like textbooks to stay focused on essential content, to keep pace and to lighten the planning load. Music lessons are important as they help children develop better memory and a greater ability to focus. Teachers coach more as children learn by doing and not merely by listening; those who do the work acquire the learning. Teachers give specific, honest and constructive feedback during the learning process instead of giving a summative grade for the end product, being conscious that grades can distract students from the joy of learning. Students prove what they know by providing evidence of their learning.
 5. For 'mindset', Walker discovered that the Finns work to live rather than live to work, for example, teachers truly 'vacate on vacation' so that they return to schools fully recharged to interact and engage their students in learning. Teachers take on an abundance-oriented approach rather than a scarcity-minded approach; during coffee breaks, they give mutual support, advise timely rest to new teachers, exchange student interests, teaching resources and ideas. They also invite each other into their classrooms. Joy is prioritised because the well being of both teachers and students raises academic achievement.
- Walker writes as a teacher for other teachers. His writing is clear and we feel we are being invited into his sharing. We may not be able to apply all of his five pointers but certainly, they are food for thought on how to create a joyful classroom where children learn, create and innovate.

