The Early Childhood Landscape in Singapore

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The Importance of Early Childhood Development
A. Importance of early years - Brain research

Early years are **critical for brain development**

- 700 new neural connections are formed every second during first few years
- 90% of the brain developed before 5 years old
- Brain most “plastic” in the early years

Brain is 80% of adult size by 3 years old

0 – 5 years critical development window
B. Relationships & interactions are key in the developmental process

“Serve and return” interaction and quality and stable relationships (nurturing; secure attachments) build and strengthen the brain architecture

- Between (i) child and parent; (ii) child and caregivers, e.g. preschool teachers
- Child’s first interaction and relationship is with parent, i.e. parents are children’s first teachers in the early years

Builds emotional well-being and social competence;
Strong foundation for emerging cognitive abilities
C. Early years have long-term effects on life outcomes

Early experiences affect many aspects of children’s development and have lasting effects:

- **Physical / Health**: Adults with adverse experiences in early childhood more likely to have chronic health problems
- **Social emotional (incl. behavioural / moral)**: Increased high school graduation rates; decreased crime and delinquency rates; likely to hold a job
- **Intellectual**: Lesser grade retention; lesser placement in special education programmes; lasting IQ score gains

- Relationships and rich learning experiences in the earliest years set the foundation for children’s lifelong development.
D. Attending quality pre-schools can help promote long term, positive effects

The Abecedarian Project (1972)¹

- 111 infants born between 1972 and 1977 were randomly picked
- Received either a quality pre-school education or not
- Follow up studies conducted at age 12, 15, 21, 20 and 35

<table>
<thead>
<tr>
<th>Age</th>
<th>Children with pre-school education...</th>
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</thead>
<tbody>
<tr>
<td>15</td>
<td>Had higher IQ</td>
</tr>
<tr>
<td>21</td>
<td>Were more likely to attend university or have a skilled job</td>
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<tr>
<td>30</td>
<td>Were more likely to hold a bachelor’s degree and hold a job</td>
</tr>
<tr>
<td>35</td>
<td>Enjoy better physical health</td>
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¹The Abecedarian Project was a controlled experiment conducted in North Carolina, United States. It studied the potential benefits of early childhood education for poor children. 57 infants identified for the experimental group were placed in the quality child care centres for 6-8 hours a day, 5 days a week, through to the age 5. They were given individualised educational games, which focused on the social, emotional and cognitive areas of development—with a particular emphasis on language.

Source: [http://abc.fpg.unc.edu/groundbreaking-follow-studies](http://abc.fpg.unc.edu/groundbreaking-follow-studies)
E. The role of teachers are the foundation of quality pre-school

• Experts agree that quality in pre-schools must be comprehensive

• **Structural** and **process** factors contribute to quality pre-school
  • **Examples of structural factors**: Meaningful family engagement; children group size; teacher-child ratio; etc.
  
  • **Examples of process factors**: Teacher-children interaction; peer-to-peer interaction; interaction with tasks/curriculum implementation

• **Quality of care and child development outcomes** more consistently related to **process indicators** (e.g. warm, positive relationships) than structural indicators
E. The role of teachers are the foundation of quality pre-school

- **Teachers’ directive** and **initiative behaviours**¹ identified as the quality interactions that contribute to child development outcomes (Hamre et al. 2013)

  (i) **Directive behaviours**, help children regulate their behaviours and emotions
  - Structuring of classroom environments
  - Providing clear and consistent rules and routines

  (i) **Initiative behaviours**, facilitate self-directed learning, positive social behaviours, literacy and language development, etc
  - Sensitivity to children; positive and warm relationships
  - Respect for children’s autonomy
  - Intentional engagement and communication with children throughout activities

¹ Researchers studied 1,400 pre-schoolers and 325 early childhood teachers from across the country, and looked at the ways teachers taught as well as how children developed academically and socially, and how they regulated their behaviour.
F. Early interventions important for children from vulnerable backgrounds

Vulnerable children face greater challenges in development

• Strong, frequent and prolonged adverse experiences in the early years can weaken developing brain architecture

• 90 - 100% chance of developmental delays when experiencing 6 - 7 risk factors (e.g. poverty, malnutrition, single parent families)

• Initial difference snowballs to lifelong, intergenerational health, educational and socio-emotional disadvantages

• Research shows that early intervention and pre-school especially benefit vulnerable children

Comparison of two 3 year old brains - Toxic stress damages the brain
Recognising the Importance of Early Childhood Development in Singapore
The early childhood (EC) sector is important for achieving national goals.

Nurtures the next generation of Singaporeans

Supports parenthood

Improves social mobility
Key trends/challenges in Singapore’s EC sector

1. Diverse sector
   • Diverse range of operators and centres
   • Quality in the sector is uneven
   • Affordability and social clustering issues

2. Rising demand and expectations
   • Changing demographics
   • Demand grown (full-day; younger ages)
   • Parents expect better quality

3. Strong manpower demand; challenges in attraction and attrition
   • About half of student graduates not joining the sector
   • High churn of teachers and challenges in hiring

Enrolment

- 2011: 141,600
- 2012: 169,200
- 2013: 150,000
- 2014: 150,000
- 2015: 169,200
- 2016: 200,000

- child care enrolment
- kindergarten enrolment

New manpower plan for pre-school sector launched, including skills-focused initiatives
ECDA’s key strategies to give a good start for every child

**Quality**
through regulations, teacher training, and curriculum and quality assurance frameworks

**Accessibility**
by master-planning infrastructure and manpower needs, and providing grants for the set up of centres

**Affordability**
through providing subsidies and grants, and measures to keep costs down
Significant progress in recent years

Quality pre-schools for parents’ assurance of good child outcomes

- 1 in 3 pre-schools are SPARK-certified (Singapore Pre-school Accreditation Framework)

- Curriculum frameworks rolled out to the sector:
  - Early Years Development Framework (ages 0-3)
  - Nurturing Early Learners (ages 4-6), by MOE

- Early Childhood Development Centres Act (2017) for more consistent and higher quality standards across the EC sector

- Various manpower initiatives for pre-service, mid-career switchers and in-service educators
Accessibility: increasing places and expanding options for parents

- **Infrastructure Master Plan** to meet demand in public housing estates

- Child care places *increased by more than 40%* since 2012, almost doubling our target

- Five *large child care centres* with capacity of 300 to 500 developed by Anchor Operators (AOPs) in operation; meet localised high demand
Significant progress in recent years

Affordability: Giving every child a good start in life; social mobility

- **Anchor** and **Partner Operators** are subject to fee caps
  - Child care median fee lowered from $900 to $856

- **Enhanced subsidies** for child care and anchor-operator, MOE kindergartens
  - Low-income families could pay as little as a few dollars a month

- **Baby Bonus cash gift**

- **Child Development Account First Step Grant** (2016): Govt dollar-for-dollar matching; offset fees
Recent efforts: More upstream and systematic support for low-income and vulnerable children

KidSTART Pilot Programme

• Embarked on KidSTART pilot in July 2016
  • 3-year pilot; 3 pilot sites
  • 1,000 low-income and vulnerable children (ages 0-6)
  • Multi-disciplinary; Brings together the family, community, and pre-school to build a strong ecosystem of support for the child

• Key programmes components:

  (I) Home Visitation (home-based; ages 0 to 1)
  (II) KidSTART Groups (community-based; ages 1 to 3)
  (III) Enhanced Support to Pre-school (centre-based; ages 2 months to < 7)
An EC sector that offers **meaningful and rewarding careers** for Singaporeans, and **quality care and education** for our children.

**Key Thrusts**

1. **Strengthen Entry Pathways and Career Progression**
2. **Improve Sector Productivity and Working Conditions**
3. **Enhance Outreach and Professional Image**

**Vision**

- Meaningful career and salary progression, regardless of their starting points.
- Supportive and positive working environment for educators.
- Respected career of choice, supported by a strong fraternity of professionals.

**Recent efforts: Early Childhood Manpower Plan**

*Tracked based on perceptions of parent and teachers measured through surveys.*
Strengthen Entry Pathways and Career Progression

- Schemes / initiatives to attract, retain and develop competencies of EC professionals
- Skills Framework for EC Care and Education
  - Competency-based framework
  - Professional development resources
  - Smoothen upgrading pathways
2. Improve Sector Productivity and Working Conditions

- Existing partnerships with agencies and unions
  - Raise awareness on good employment practices

- Collaboration between government and industry; Leverage on technology for smart solutions
  - Streamline admin duties
  - Support demand aggregation
  - Share best practices/productive work processes
• A lot of good work; not a lot of recognition

• Outreach efforts and public education to increase awareness

• Campaigns and movements to improve image and attractiveness of early childhood jobs

• Supporting Teacher’s Day for all early childhood professionals
Summary

- Early childhood development is important
- Relationships & interactions are key in the developmental process
- Early years have long-term effects on life outcomes; quality pre-school is important
- The role of teachers are the foundation of quality pre-school
- ECDA’s key strategies to give every child a good start: Quality, Accessibility and Affordability
- The government is investing significantly and is committed to developing the EC sector