

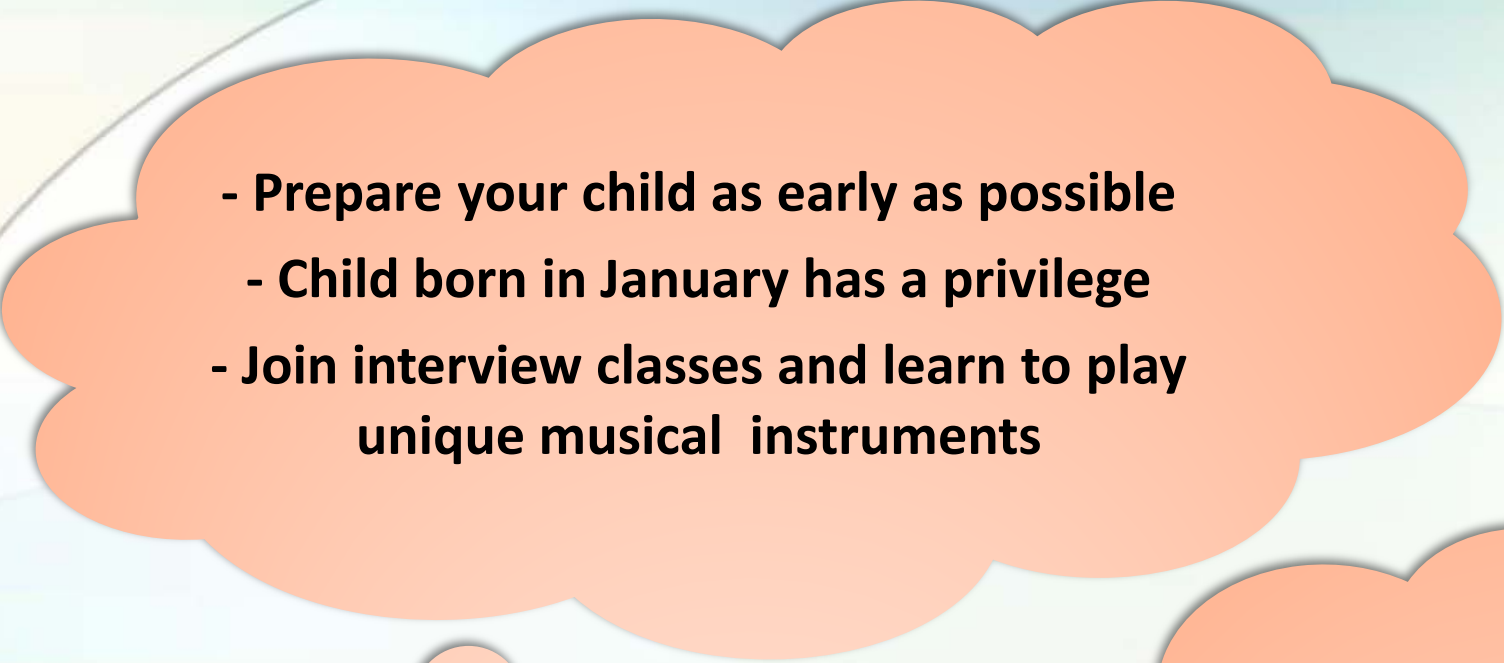
The myth of winning at the scratch line

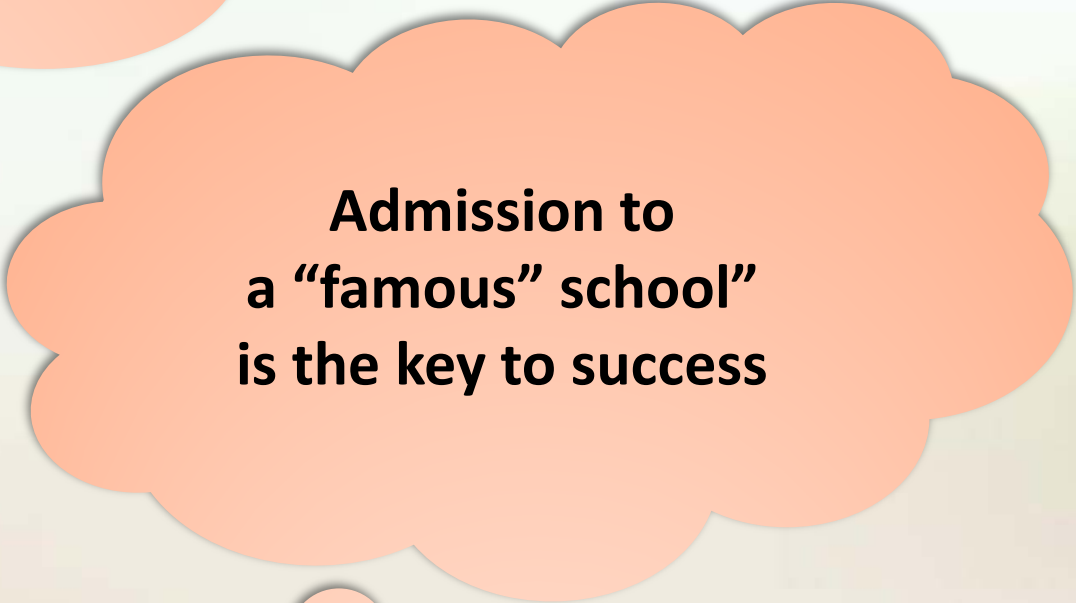
Dr. Chan Ching King

Educational Psychologist
Po Leung Kuk Social Services

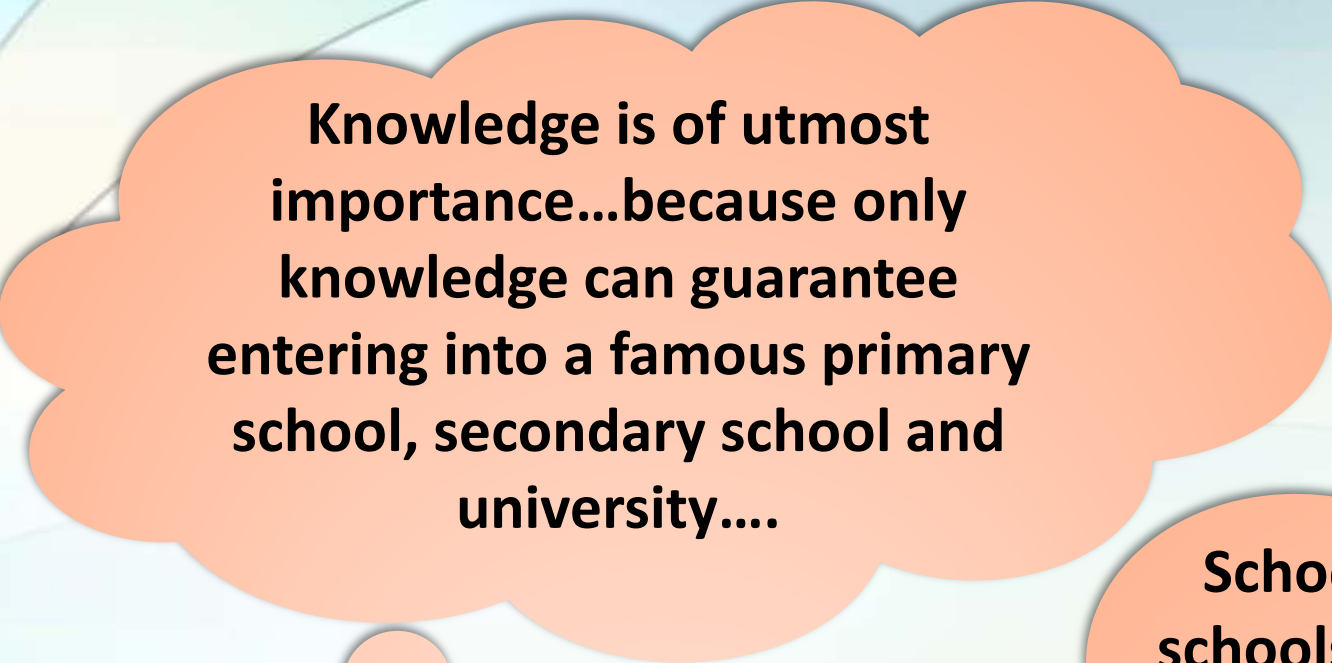
23.11.2018

- 《Kindergarten Education Curriculum Guide》
2017, Education Bureau
 - Do not require children in K1 to hold a pencil and write
 - Do not require children in K2 and K3 to do copying and calculation
 - Do not arrange homework that is excessive, frequent and too difficult, so as not to cause unnecessary pressure or drilling

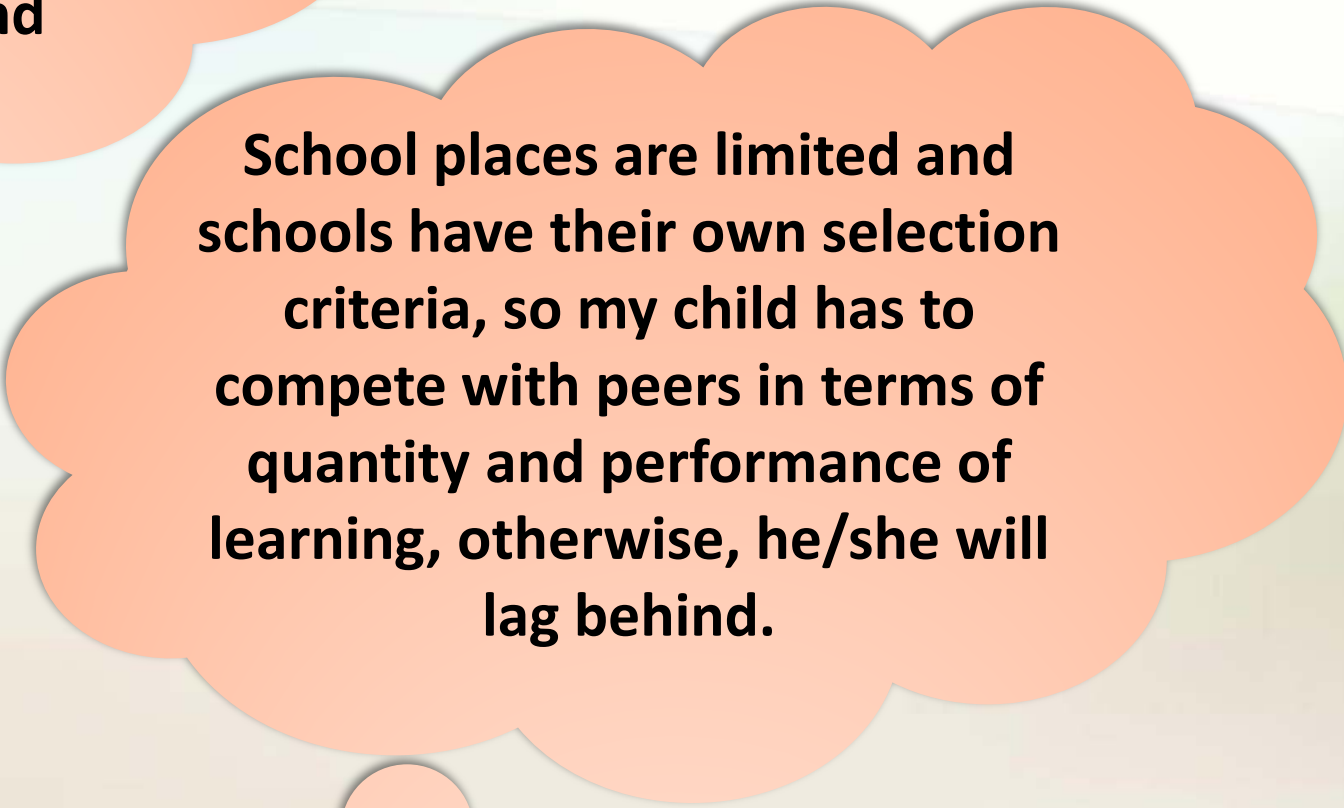
- 
- Prepare your child as early as possible
 - Child born in January has a privilege
 - Join interview classes and learn to play unique musical instruments



**Admission to
a “famous” school”
is the key to success**



Knowledge is of utmost importance...because only knowledge can guarantee entering into a famous primary school, secondary school and university....



School places are limited and schools have their own selection criteria, so my child has to compete with peers in terms of quantity and performance of learning, otherwise, he/she will lag behind.

The fact is... there is a cost for “producing” a January baby

- epigenetics
- The first 1001 nights (from pregnancy to two years old) are very important for brain development of children

Conkbayir, M. (2017). Early Childhood and Neuroscience: Theory, Research and Implications for Practice. Bloomsbury Academic.

The fact is... if the drilling is not of the child's interests or potentials

- Just like training an eagle for a running race
- The return may not be equivalent to the committed time and effort



【經緯線】走進東·西教室 之上學為甚麼？ (2016)

The fact is... if the drilling is not of the child's interests or potentials

- Drilling could result in adverse consequences such as emotional disturbance, low self-regard and anxiety
 - Fear of failure (can't win a prize or get full marks)
 - Failure = worse than peers = let parents down



《沒有起跑線？》第5集 - 愛輸才會贏？ (2016)

【新聞透視】不快樂童年 (2014)



Psychiatrist :
- 3 new cases per week during
examination period
- 11 year-old top student
depressed when school
performance dropped a bit
(Apple Daily 7.11.2018)

- Drilling could result in adverse consequences, e.g. low motivation in learning



【經緯線】走進東·西教室之上學為甚麼？(2016)

The fact is... other skills are more important than knowledge

- Germany - prior to primary education, children just need to grow happily
- To develop basic and generic skills (motor, social, problem solving, reading and executive functions ,etc.)
 - To develop social norms, e.g. no violence, speak in low voice, etc.
 - To let children do hands-on work, so they would take initiative to perform concrete action at young age
 - To nurture children's emotional intelligence, especially leadership
 - To prohibit teaching children writing, reading and computation



【視點31】德國幼教 毋須贏在起跑線 (2014)

- Should not violate
children's growth patterns
- Do the right things at the
right stages

The fact is... other skills are more important than knowledge

- Early childhood education in Finland
 - Learning should be interesting and meaningful that children can enjoy
 - Learning should be child-centred, not competitive but help children discover their strengths and interests
 - Teachers' passion in education is valued by society



【經緯線】走進東·西教室之 芬蘭 學習快樂 (2016)

What parents should do to prepare their children for “winning at the scratch line” - Research findings

1. Neuroscience finds that during infancy and adolescence, there is a process of synaptic pruning which is important for the brain development and learning
 - ◆ Concepts formation
 - ◆ Language development
 - ◆ Motor coordination
 - ◆ Emotions, social interaction, security and self-concept → secure attachment

Conkbayir, M. (2017). Early Childhood and Neuroscience: Theory, Research and Implications for Practice. Bloomsbury Academic.

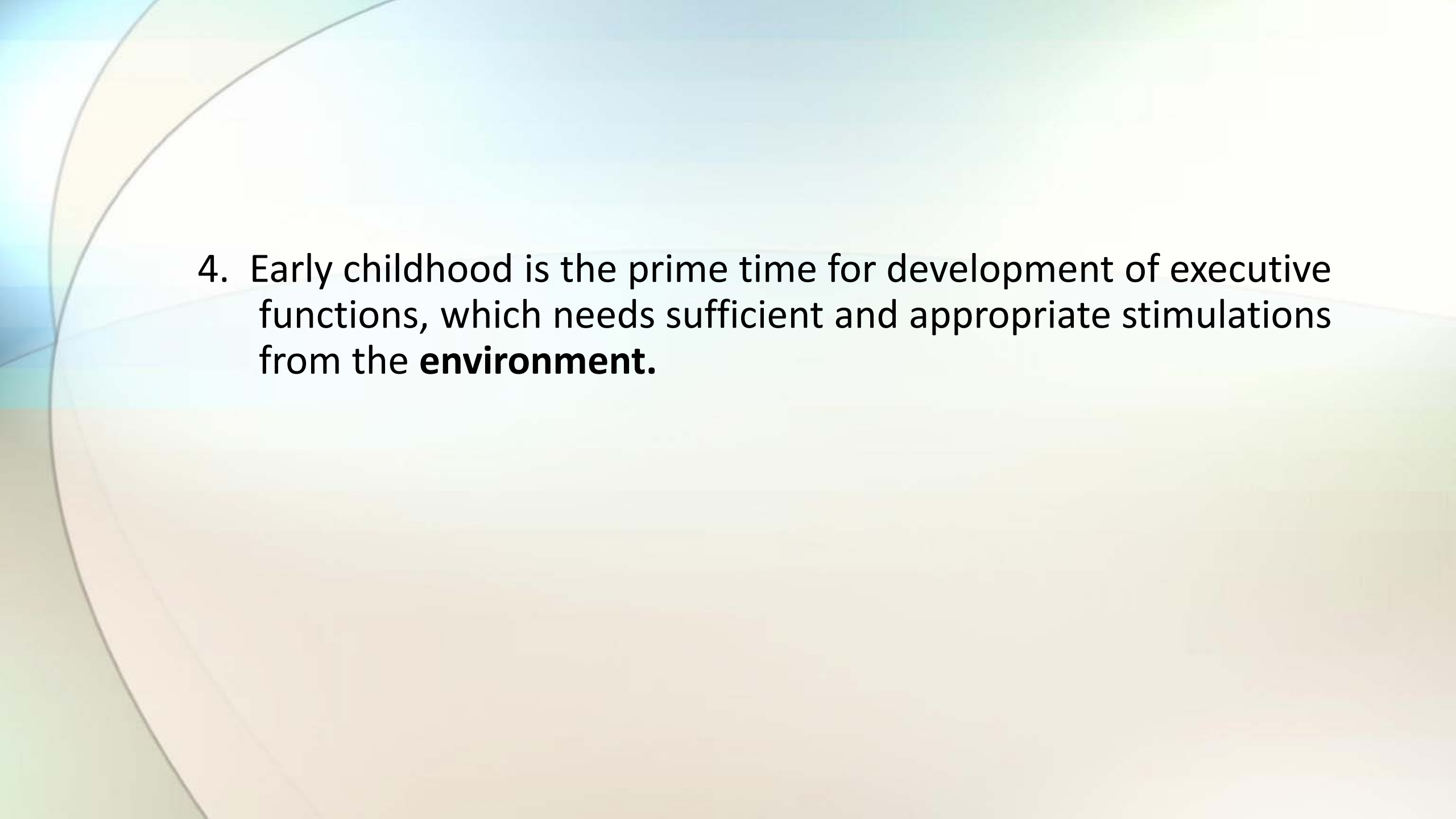
2. **Quality parent-child interaction and care** are essential and have positive correlation with children's later language development, learning and positive emotions

- ◆ Stable daily living schedule
- ◆ Actively listen to the child and give gentle response
- ◆ Daily reading with the child
- ◆ Teach the child letters and simple number concepts
- ◆ Bring the child out for activities

(Centre for Longitudinal Studies www.cls.ioe.ac.uk; NICHD, 2007; NICHD, 2010)

3. The stability of the care-takers correlates with children's behavioral problems (Morrissey, 2009)

- ◆ More unstable or changes of care-takers → more behavioral problems of the children
- ◆ Parents should keep constant care givers and provide regular quality interaction with their children

- 
4. Early childhood is the prime time for development of executive functions, which needs sufficient and appropriate stimulations from the **environment**.

Executive Function (EF)

- self control/ self-regulation skills
- working memory
- mental flexibility

Center on the Developing Child at Harvard University (2011). INBRIEF: Executive Function: Skills for life and learning. Retrieved from www.developingchild.harvard.edu

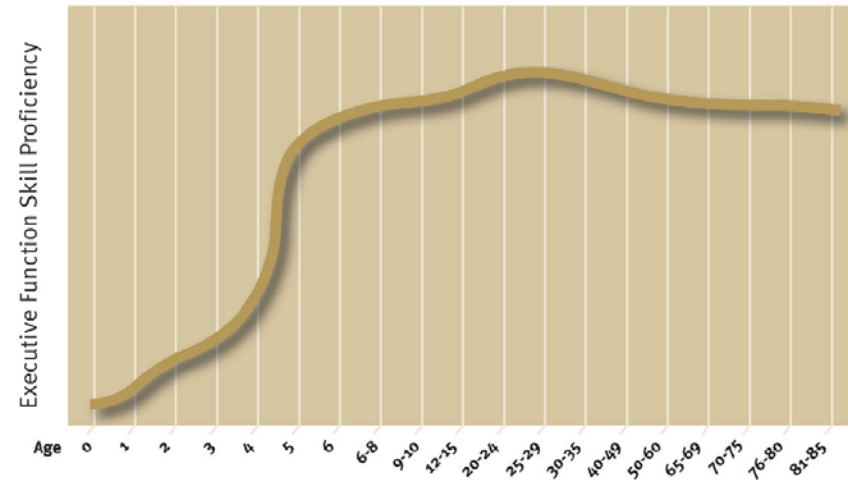
IN BRIEF | EXECUTIVE FUNCTION: SKILLS FOR LIFE AND LEARNING

A series of brief summaries of essential findings from recent scientific publications and presentations by the Center on the Developing Child at Harvard University.

Research on the developing brain shows us that early childhood experiences build the foundation for a skilled workforce, a responsible community, and a thriving economy. A new evidence base has identified a set of skills that are essential for school achievement, for the preparation and adaptability of our future workforce, and for avoiding a wide range of population health problems.

In the brain, the ability to hold onto and work with information, focus thinking, filter distractions, and switch gears is like an airport having a highly effective air traffic control system to manage the arrivals and departures of dozens of planes on multiple runways. Scientists refer to these capacities as executive function and self-regulation—a set of skills that relies on three types of brain function: working memory, mental flexibility, and self-control. Children aren't born with these skills—they are born with the potential to develop them. The

Executive Function Skills Build Into the Early Adult Years



Source: Weintraub et al. (Submitted for Publication)

Center on the Developing Child at Harvard University (2011). Building the Brain's "Air Traffic Control" System: How Early Experiences Shape the Development of Executive Function: Working Paper No. 11. Retrieved from www.developingchild.harvard.edu

EF facilitates...

- Focused, patience
- Adaptive
- Self-control

School
achievement

- Emotionally sensitive
- Cooperative, decisive
- Think critically

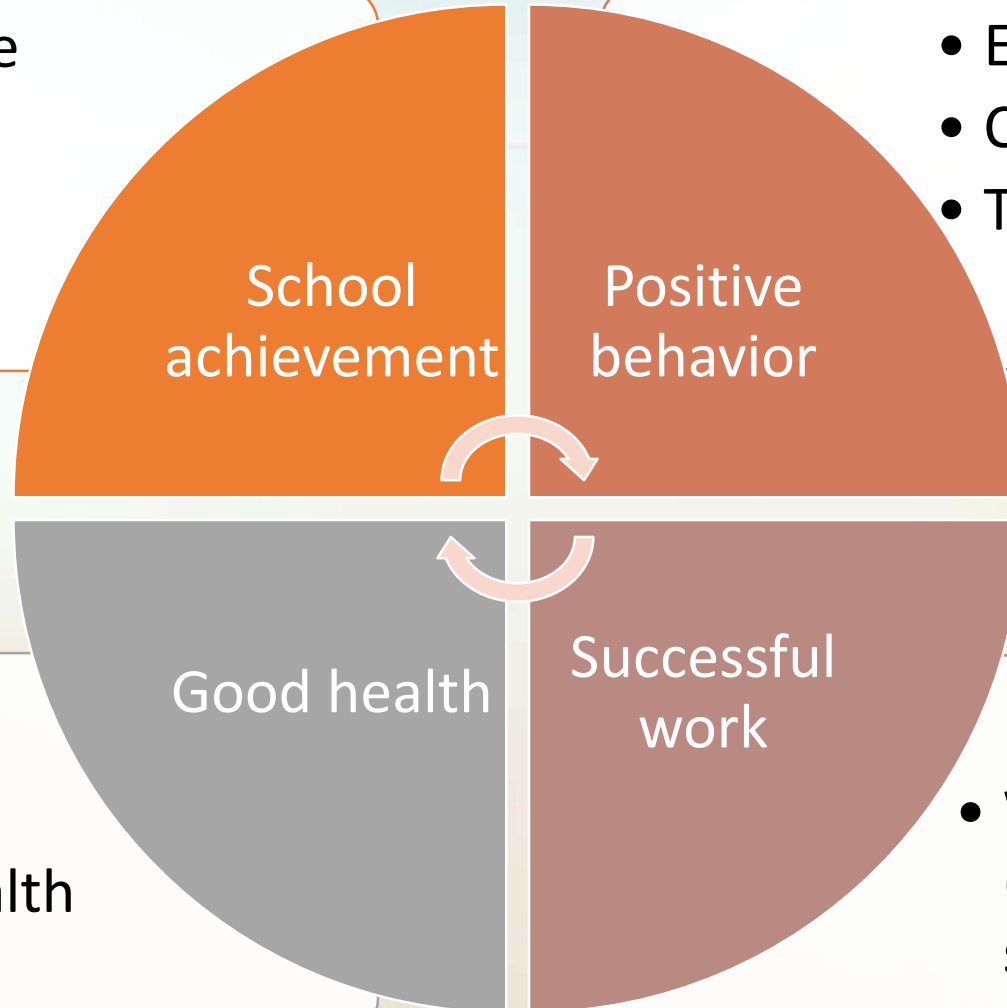
Positive
behavior

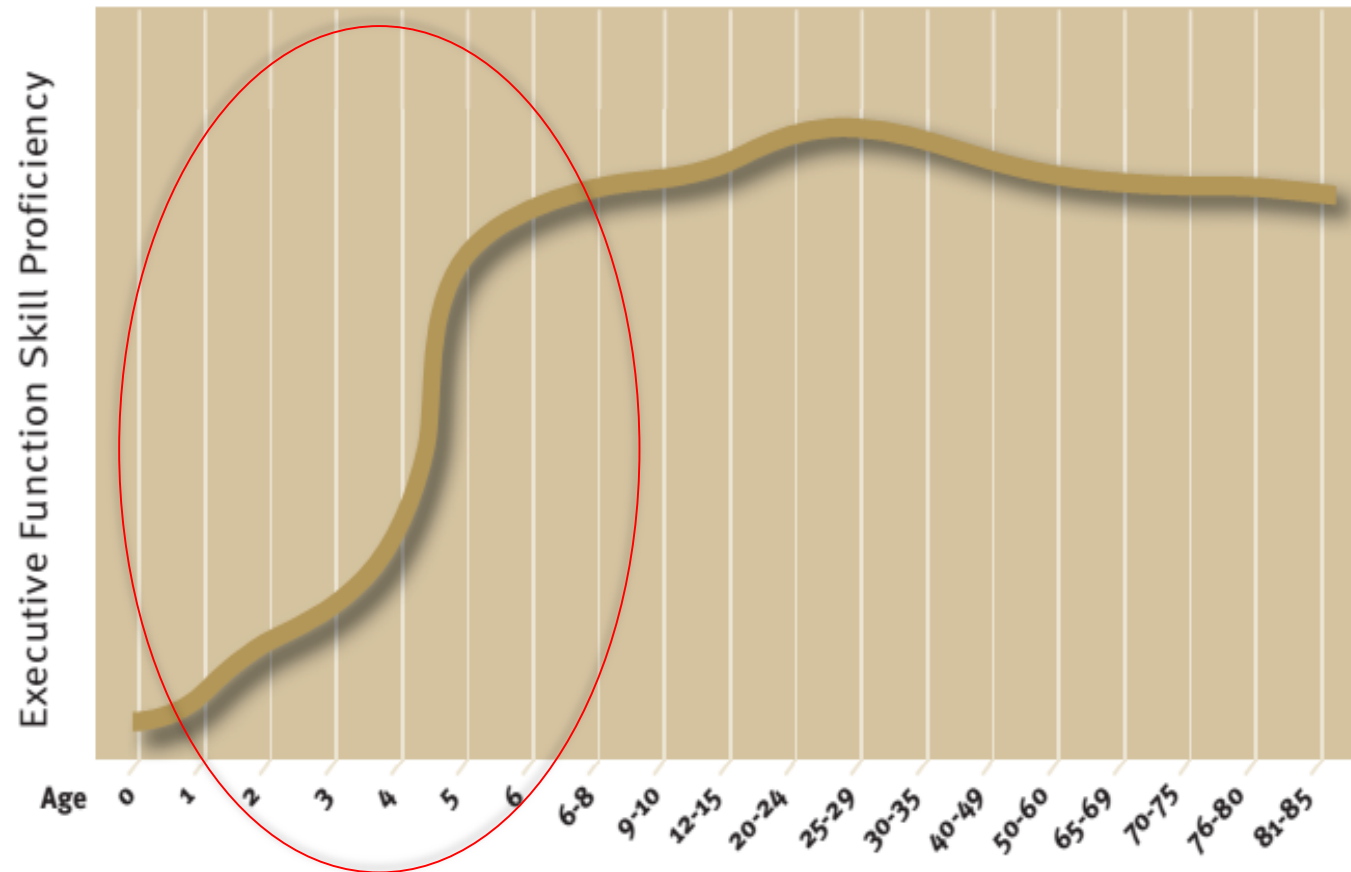
- Stress resistance
- Concern own health

Good health

Successful
work

- Work skills ready
(e.g. problem
solving, planning)





A range of tests measuring different forms of executive function skills indicates that they begin to develop shortly after birth, with ages 3 to 5 providing a window of opportunity for dramatic growth in these skills. Growth continues throughout adolescence and early adulthood; proficiency begins to decline in later life.

Center on the Developing Child at Harvard University (2011). Building the Brain's "Air Traffic Control" System: How Early Experiences Shape the Development of Executive Function: Working Paper No. 11. Retrieved from www.developingchild.harvard.edu

3 key elements to nurture EF

Relationship

- **Trusting**
- **Reliable presence**
- **Supportive**
- **Skill modeling**
- **Guidance**

Activities

- **Guided coping strategies**
- **Foster social connection**
- **Vigorous physical exercise**
- **Repeated practice and increase in complexity**

Places

- **Feel safe**
- **Opportunity to explore**
- **Economically and socially stable**

Toxic Stress

Toxic Stress

- Including abuse, neglect of basic needs, family poverty, mental health issues of family members
- Toxic stress can increase cortisol (stress hormone) that adversely affects the development of the brain, including memory, attention, emotion control and immune system



《幼兒情緒大腦建築師 醫生讓你知》(東華三院及香港大學2018)

What parents should do to prepare their children for “winning at the scratch line” – Actions

- Arrange prime time with children to establish secure attachment
- Play with children more often
- Encourage children to explore the environment, provide more opportunities and respond to their curious questions
- Avoid toxic stress

- Talk and read with children frequently so as to facilitate language and emotional development
- Provide autonomy for children to nurture independence in daily life
- Ensure children have adequate rest and play time, stable daily living schedule

What do our children need to succeed in the future?

Top 10 skills in 2015

1. Complex problem solving
2. Coordinating with others
3. People management
4. Critical thinking
5. Negotiation
6. Quality control
7. Service orientation
8. Judgement and decision making
9. Active listening
10. Creativity

Top 10 skills in 2020

1. Complex problem solving
2. Critical thinking
3. **Creativity**
4. People management
5. Coordinating with others
6. **Emotional intelligence**
7. Judgement and decision making
8. Service orientation
9. Negotiation
10. **Cognitive flexibility**



Q & A