

**Child Development  
Professional Studies  
Kirsty Weeks**

**Whilst the division of development into different domains:**

**i.e. *biological, cognitive, emotional, social***

**may be useful in organising our own thinking, it is important to remember that development is an holistic process and each domain is influenced by and influences others.**

# The Nature versus Nurture argument



So we are all pretty familiar of the idea that we inherit physical characteristics but is my son's talent for music really inherited? What about his empathetic abilities?

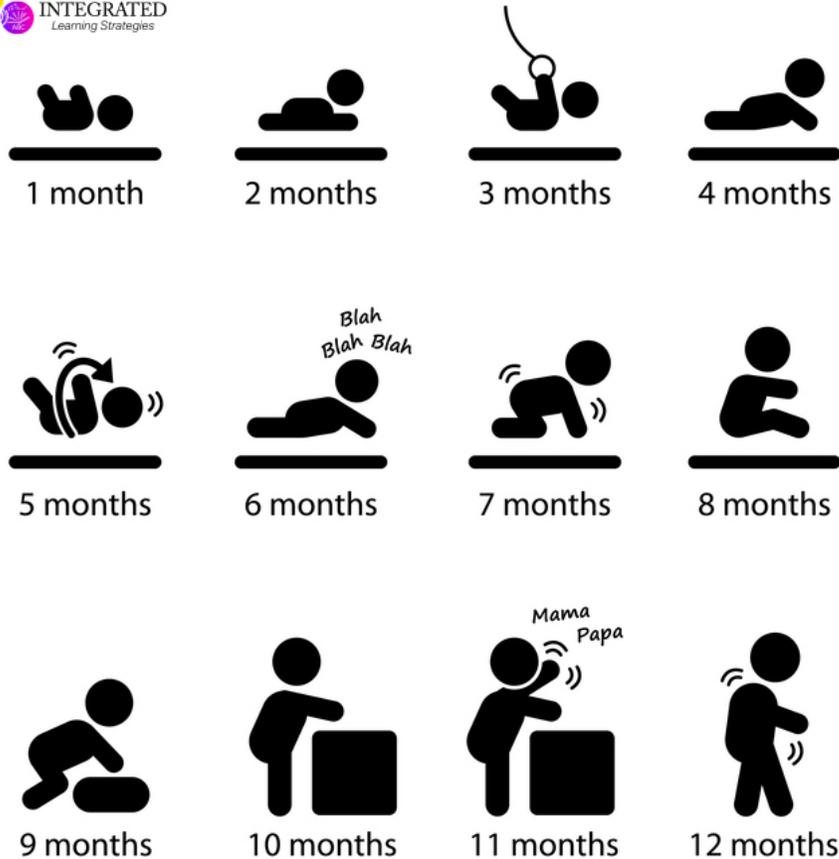
If nurture is the key when is the crucial time? Can nurture influence nature?



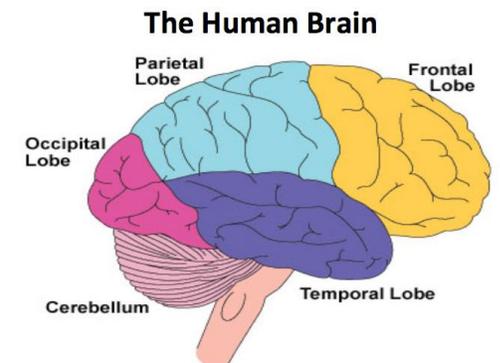
Major studies ( including Goldberger 1977; Taylor 1980; Neal 1997; Björklund et al 2005; Plomin 2018 ) on the whole show that genetics accounts for 50% of the psychological differences from personality to mental abilities. The other differences however aren't all down to nurture/the environment (10 to 20% is).

Ridley (2018:280): *'Nature versus nurture is dead. Long live nature via nurture'*

# Physical and brain development



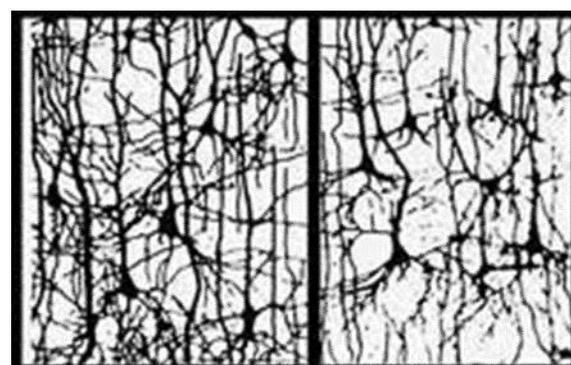
- The most profound physical development takes place within the first year.
- Motor development tends to follow a particular pattern.
- At birth the brain is close to it's adult size.
- The basic unit of the brain and nervous system is a cell called a neuron. We have approximately 86 billion of them and the majority are formed by the 6<sup>th</sup> month of pregnancy.



# What does modern neuroscience tell us about the early years of child development?

Much of what we know has only been found out in the last 10 years, neuroscience has really taken off and may still bring us much we yet do not know.

There are tiny gaps between the neurons called synapses. Information is transmitted across the synapses and our brain becomes 'wired'. Infrequent pathways result in the loss of developing pathways. Adolescence is when most of this pruning happens.



6 Years Old

14 Years Old

Density in the Human Brain



Newborn



1 Month



9 Months



2 Years

# Attachment theory



A secure child will develop a model of themselves as loveable and of others as reliable and trustworthy- this is the basis of self-esteem and resilience. [Video](#)

- From birth a child needs to make a secure attachment with the main significant adult or adults in their life.
- At 9 months most babies are mobile and begin to take responsibility for keeping themselves close to their attachment figure. At this age they become very wary of strangers and will show anxiety when left with a stranger.
- Studies show babies are most likely to form an attachment to those who respond accurately to signals rather than the person they spend more time with. Schaffer and Emerson called this sensitive responsiveness.

# Why is Attachment important in child development?

## The Allen Report (2011)

The type of attachment formed has a positive impact on:

- Self-Esteem
- Independence
- Ability to make short and long-term relationships
- Ability to show empathy towards others



## Schore (2000)

'A child's first relationship, the one with their mother, acts as a template ...it permanently moulds the individual's capacity to enter into all later emotional relationships.'

# Attachment Theory

## Bowlby (1958)

- Father of attachment theory
- Bowlby studied the effects of children separated from their parents during wartime evacuation.
- His attachment theory is based on the premise that everyone needs emotional intimacy.

Bowlby described two attachment styles:

Secure attachment – when the emotional needs of the child are met on a consistent basis, and results in relationship-maintaining behaviors in childhood and adult life.

Insecure attachment – when the emotional needs of the child are met inconsistently or not at all, and results in relationship-threatening behaviors in childhood and adult life.

Attachment styles	% of sample (also generalized to represent U.S. population)	The child's general state of being	Mother's responsiveness to her child's signals and needs	Fulfillment of the child's needs (why the child acts the way it does)
<b>Secure Attachment</b>	65%	Secure, explorative, happy	Quick, sensitive, consistent	Believes and trusts that his/her needs will be met
<b>Avoidant Attachment</b>	20%	Not very explorative, emotionally distant	Distant, disengaged	Subconsciously believes that his/her needs probably won't be met
<b>Ambivalent Attachment</b>	10-15%	Anxious, insecure, angry	Inconsistent; sometimes sensitive, sometimes neglectful	Cannot rely on his/her needs being met
<b>Disorganized Attachment</b>	10-15%	Depressed, angry, completely passive, nonresponsive	Extreme, erratic: Frightened or frightening, passive or intrusive	Severely confused with no strategy to have his/her needs met



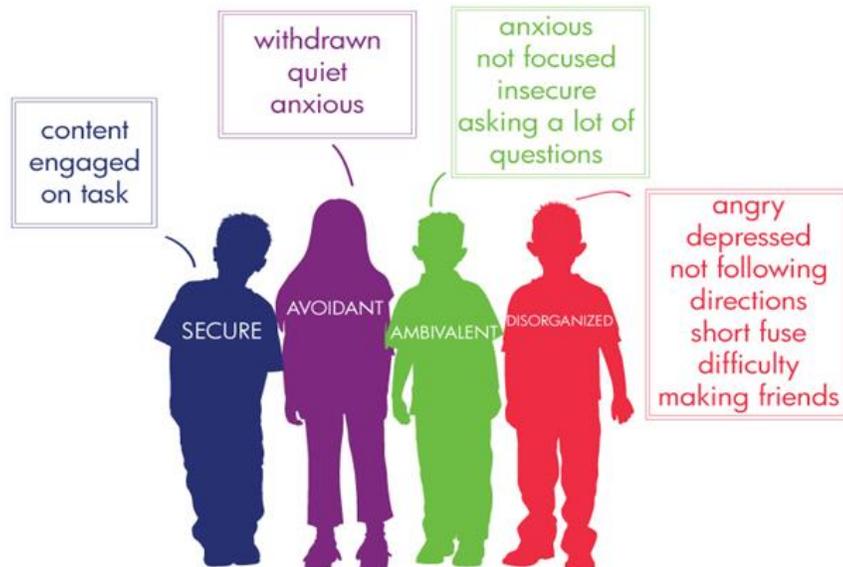
## The Allen Report (2011)

Highlights the importance of early intervention.

## Bergin and Bergin (2009)

Riley (2010); Geddes (2006)

Teachers and significant adults can provide important attachments for children.



Children who have experienced severe trauma & neglect require

**Specialist Support**  
e.g. Educational Psychologist

**Insecure  
Disorganised  
Attachment**

Children with unmet attachment needs require

**Targeted Support**  
e.g. nurture provision or additional tutor support

**Insecure  
Avoidant  
Attachment**

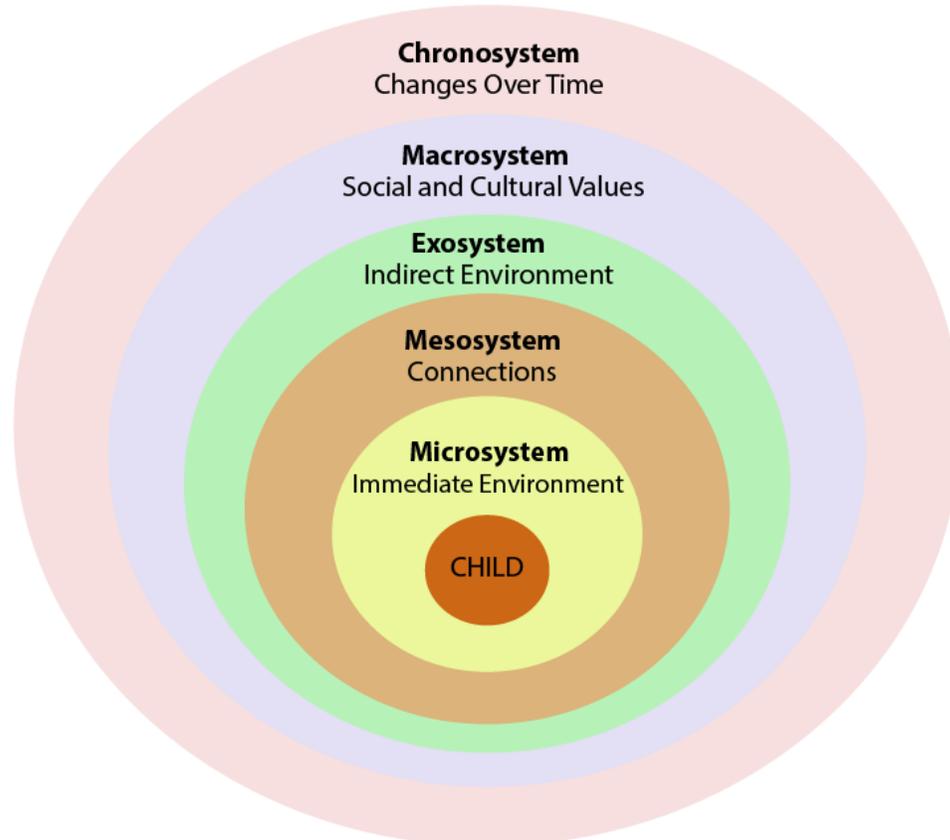
**Insecure  
Ambivalent  
Attachment**

All children need support for their emotional well-being

**A whole school approach**

# The Bioecological Model

## Bronfenbrenner's Ecological Systems Theory



American psychologist Bronfenbrenner (1979) advocated an approach to development that saw the environment extending beyond the child's immediate surroundings.

[Video](#)

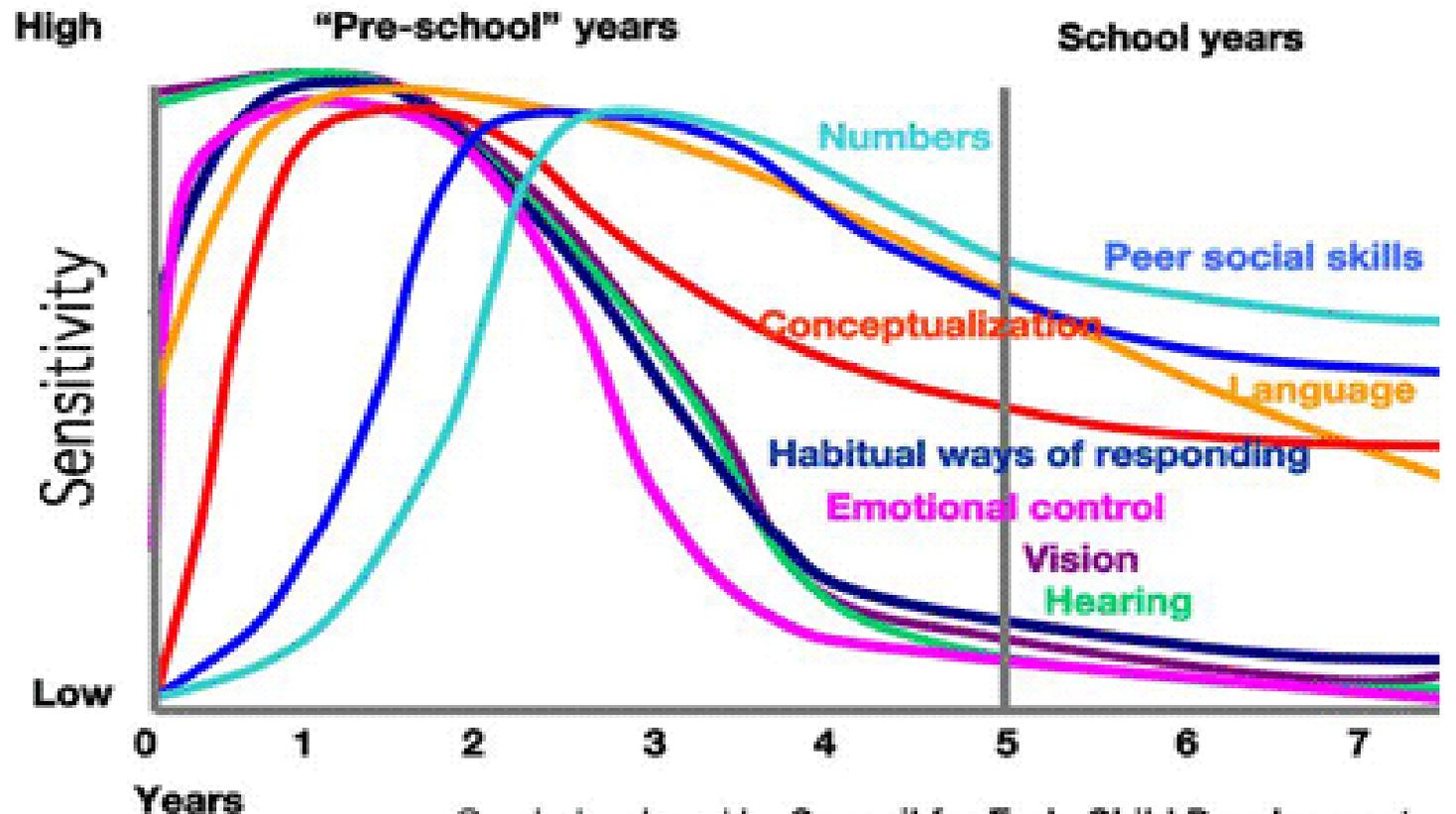
'Proficiency in oral language provides children with a vital tool for thought' Bruner (1983)



Language deprivation: Genie

[Video](#)

### 'Sensitive periods' in early brain development



Graph developed by Council for Early Child Development  
(ref: Nash, 1997; *Early Years Study*, 1999; Shonkoff, 2000.)

## 'Motherese' important for children's language development

May 6, 2011 in [Psychology & Psychiatry](#)



[Enlarge](#)

(Medical Xpress) -- Talking to children has always been fundamental to language development, but new research reveals that the way we talk to children is key to building their ability to understand and create sentences of their own. The exaggerated speech we naturally use with young children is special register – often called 'motherese'.

## Babies 'cry in mother's tongue'

German researchers say babies begin to pick up the nuances of their parents' accents while still in the womb.

The researchers studied the cries of 60 healthy babies born to families speaking French and German.

The French newborns cried with a rising "accent" while the German babies' cries had a falling inflection.

Writing in the journal *Current Biology*, they say the babies are probably trying to form a bond with their mothers by imitating them.



Babies' cries imitate their mother tongue as early as three days old

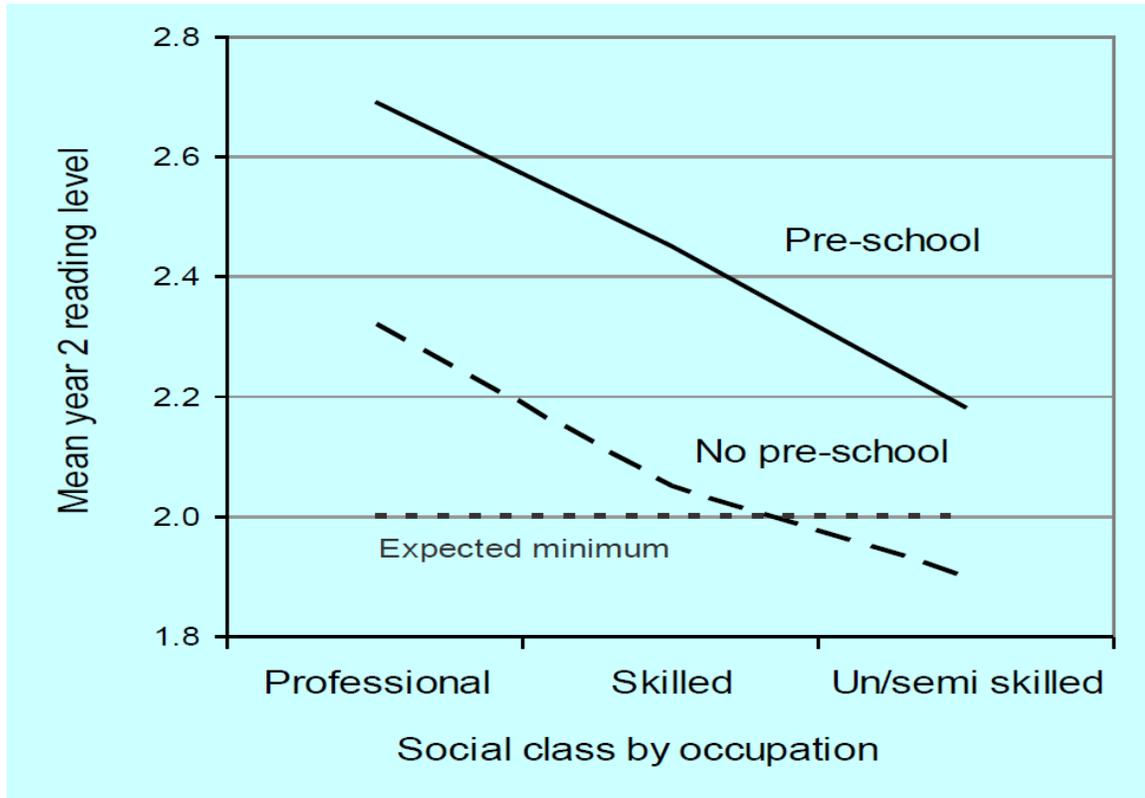
[twin babies in the kitchen](#)

[https://www.youtube.com/watch?v=\\_JmA2CIUvUY](https://www.youtube.com/watch?v=_JmA2CIUvUY)

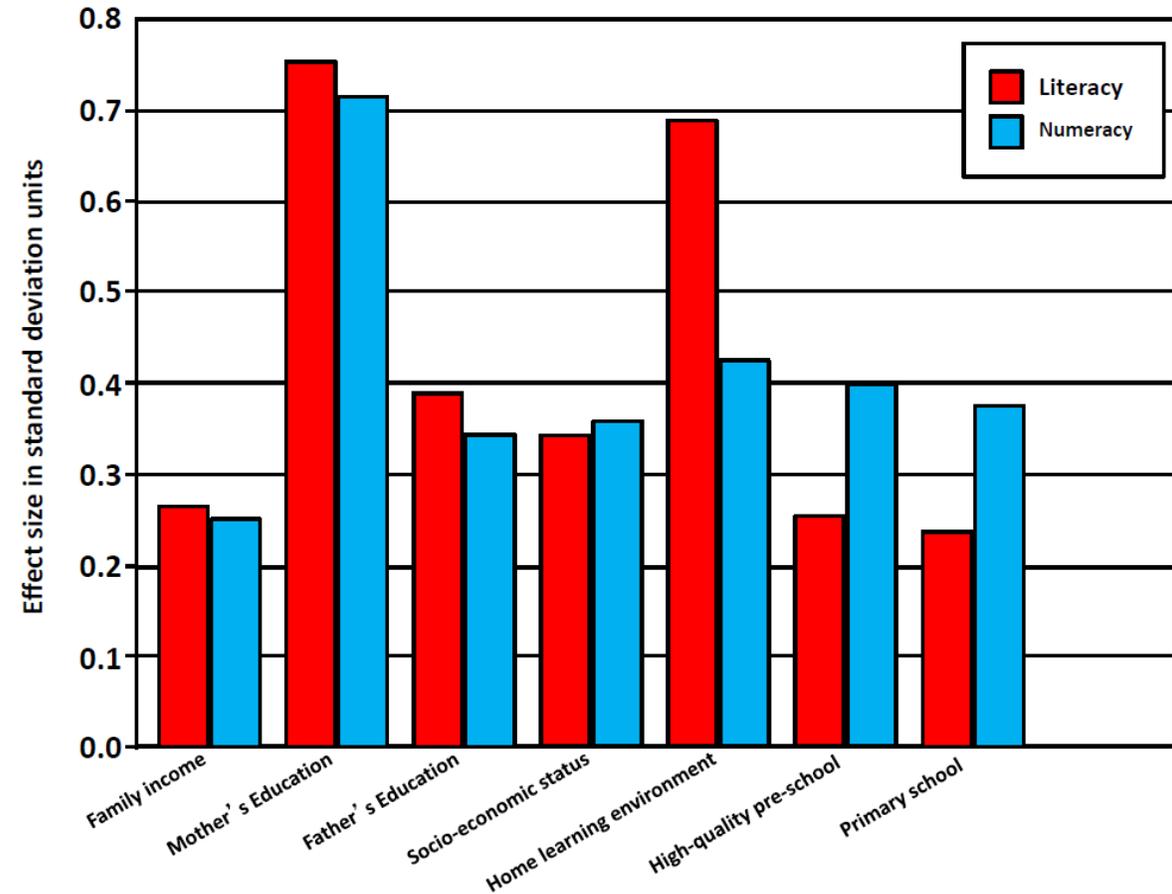


# What has class got to do with it?

## Social class and pre-school on literacy (age 7)



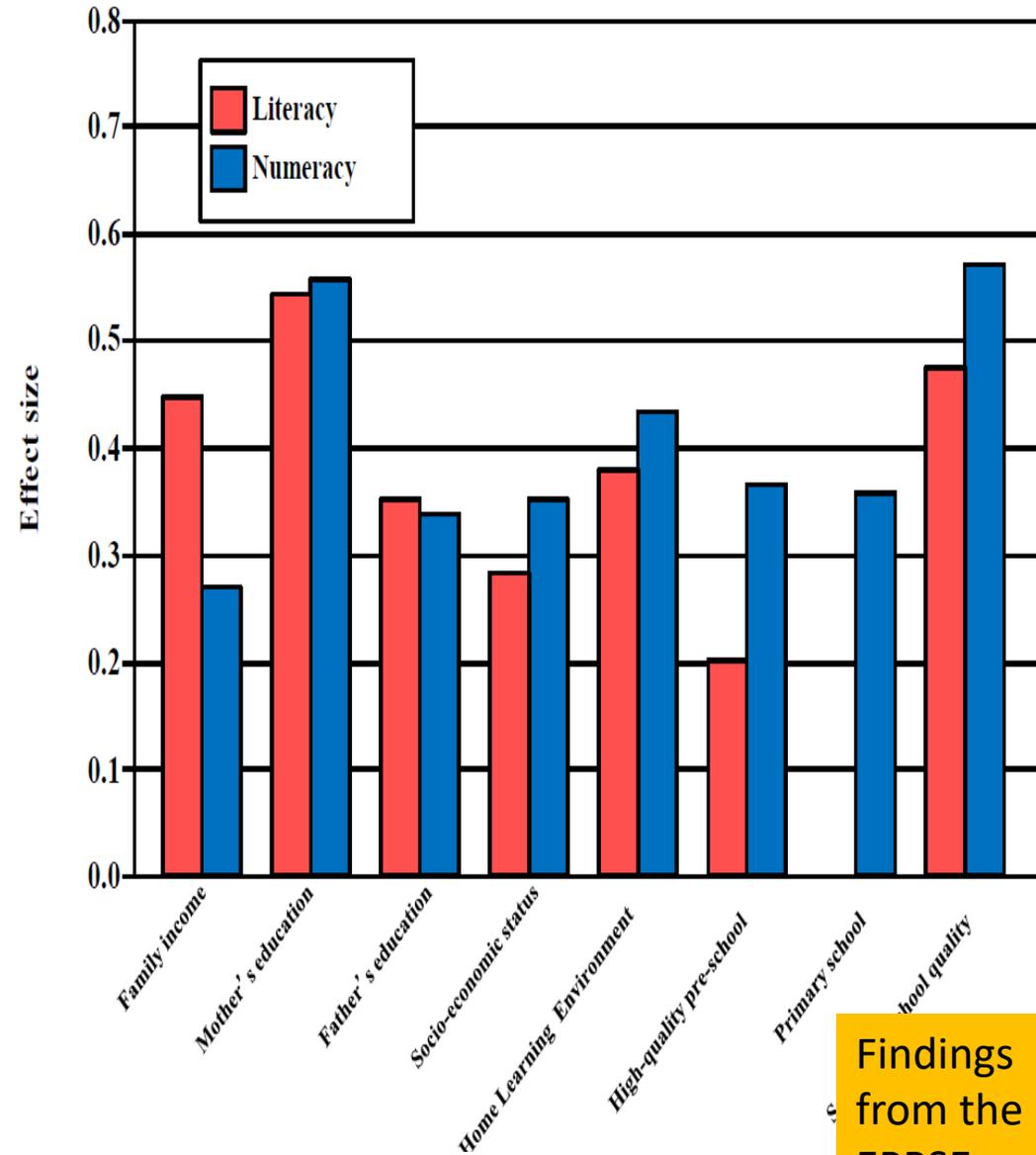
Effects upon Age 11; literacy and numeracy



## What were the key findings?

- ▶ Children who had early years education gained higher English and mathematics GCSE results and were more likely to achieve five or more GCSEs at grades A\*C.
- ▶ Children who had experienced high-quality pre-school education were better at self-regulation, social behaviour and less inclined to hyperactivity.
- ▶ Children who had experienced high-quality pre-school settings were more likely to follow a post-16 academic path.

Effect sizes for 16 year olds



Findings from the EPPSE study

## What to expect, when?

Guidance to your child's learning and development  
in the early years Foundation stage



Department  
for Education



# Plenary

The study of child development is not just fascinating in it's own right : the knowledge gained from it's study can have a practical impact regarding care, education and well being of children.

**Early Education**  
The British Association for Early Childhood Education  
[www.early-education.org.uk](http://www.early-education.org.uk)

### Development Matters in the Early Years Foundation Stage (EYFS)

This non-statutory guidance material supports practitioners  
in implementing the statutory requirements of the EYFS.

Children develop quickly in the early years, and early years practitioners aim to do all they can to help children have the best possible start in life. Children have a right, spelled out in the United Nations Convention on the Rights of the Child, to provision which enables them to develop their personalities, talents and abilities irrespective of ethnicity, culture or religion, home language, family

background, learning difficulties, disabilities or gender. This guidance helps adults to understand and support each individual child's development pathway. Other guidance is provided at [www.foundationyears.org.uk](http://www.foundationyears.org.uk). The EYFS statutory framework is available on the Foundation Years website as well as the Department for Education website: [www.education.gov.uk/publications](http://www.education.gov.uk/publications)



Allen, G. (2011) Early Intervention the next steps

Bronfenbrenner, U. (1979) The Ecology of human development

Bjorklund, A et al. (2007) Nature and Nurture in the intergenerational transmission of socioeconomic status

Conkbayir, M. (2017) Early Childhood and Neuroscience. Theory, research and implications for Practice. Bloomsbury.

Foundation Years website <https://foundationyears.org.uk/>

Geddes, H. (2006) Attachment in the Classroom.

Goldberger, A. (1979) *Economica*, New series Vol 46, No 184. Special Issue on the Economics of Inheritance pp327-347

Holmes, J. (2014) John Bowlby and the Attachment Theory.

Polmin, R. (2019) How DNA makes us who we are

Schore, A. Attachment and the regulation of the right brain. 2000.

Siraj, I. et al EPPSE. <https://www.ucl.ac.uk/ioe/research/featured-research/eppse-publications>

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