

# Effective Pre-School, Primary and Secondary Education Project EPPSE 1997 – 2014 'Education in the Modern World: Challenges, Evaluation, Solutions'



Research funded by the UK Department for Education

**Principal Investigators: Kathy Sylva, Edward Melhuish, Pam Sammons, Iram Siraj  
(University of Oxford) & Brenda Taggart (University College London: Institute of Education)**

# Challenges

- ❖ By 2050 in most industrial countries the working population is decreasing whilst the elderly population is growing.
- ❖ Economic sustainability requires maximizing the workforce but there is still inequality of opportunity.
- ❖ Both cognitive and non-cognitive skills are critical.
- ❖ The case for early years investment
  - “ *Like it or not, the most important mental and behavioural patterns, once established, are difficult to change once children enter school.*”  
(Heckman & Wax, 2004).

**Solutions: Invest in early childhood education**

# Moral and economic arguments for early investment

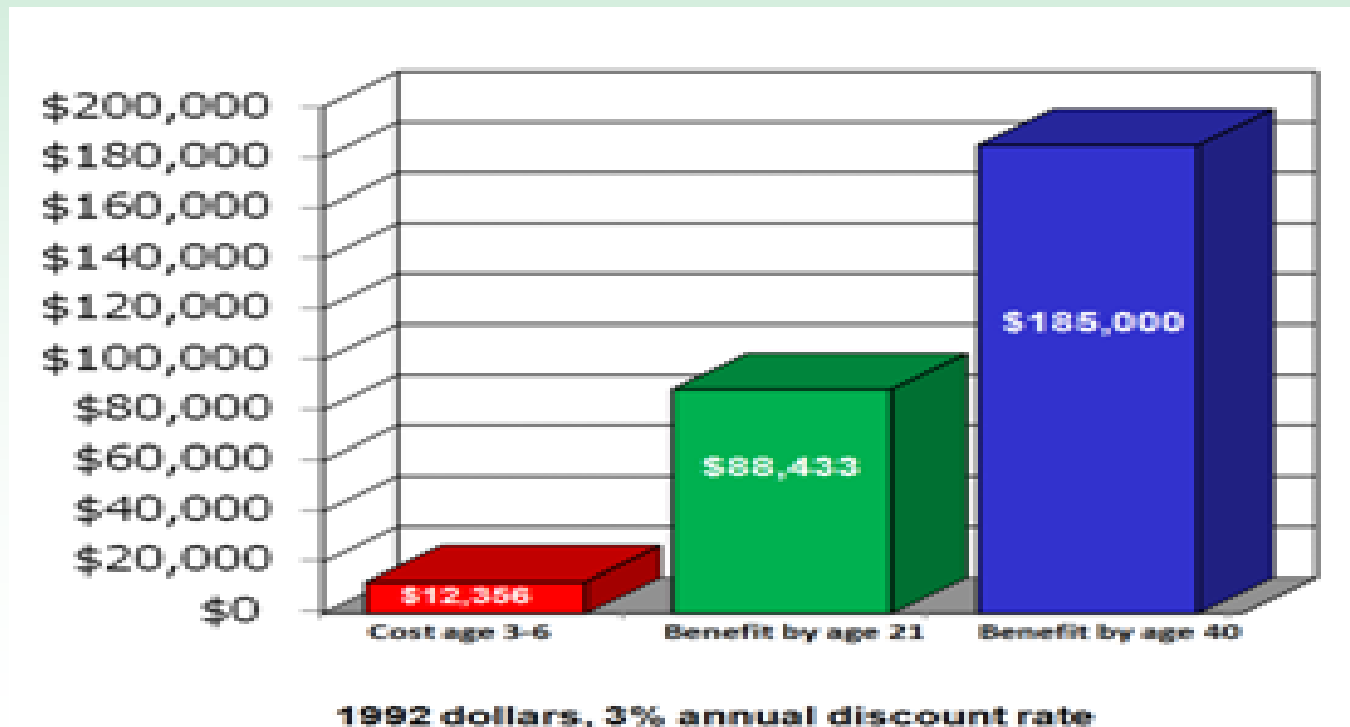
## Moral - Equity and social cohesion:

Across OECD (2012) disadvantaged groups are at greater risk of poorer :

- ❖ health, behaviour, social & emotional skills, cognitive & language & numeracy development and employability. They make poorer educational progress and have higher levels of criminality

## Economic – long term savings to the public purse

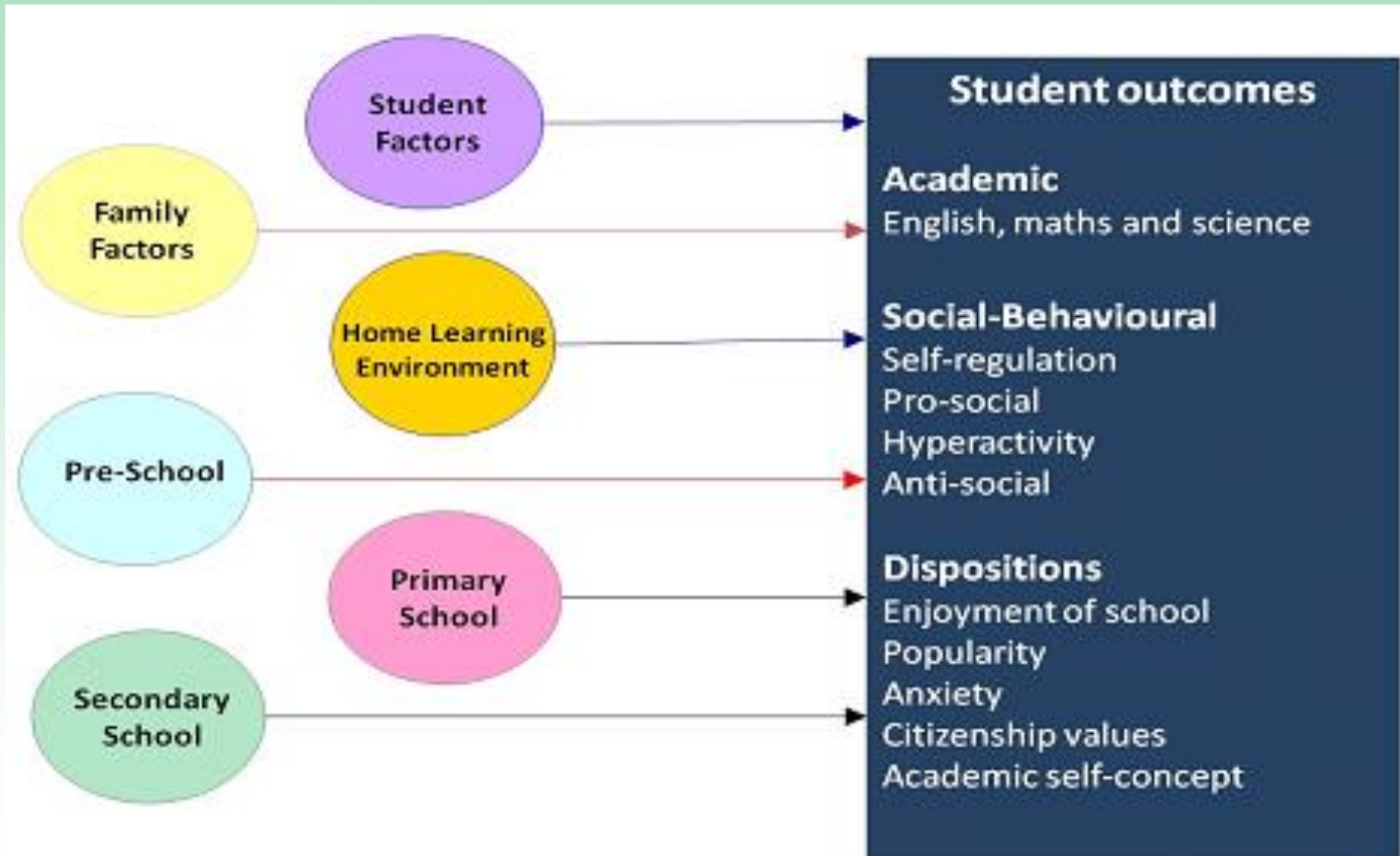
Return on investment – Programme benefits versus cost – Schweinhart (2005), Belfield (2006)



Return on dollar  
invested age 21  
**7:1**

Return on dollar  
invested age 40  
**16:1**

# EPPSE study: Evaluating influences on outcomes



# What influences outcomes

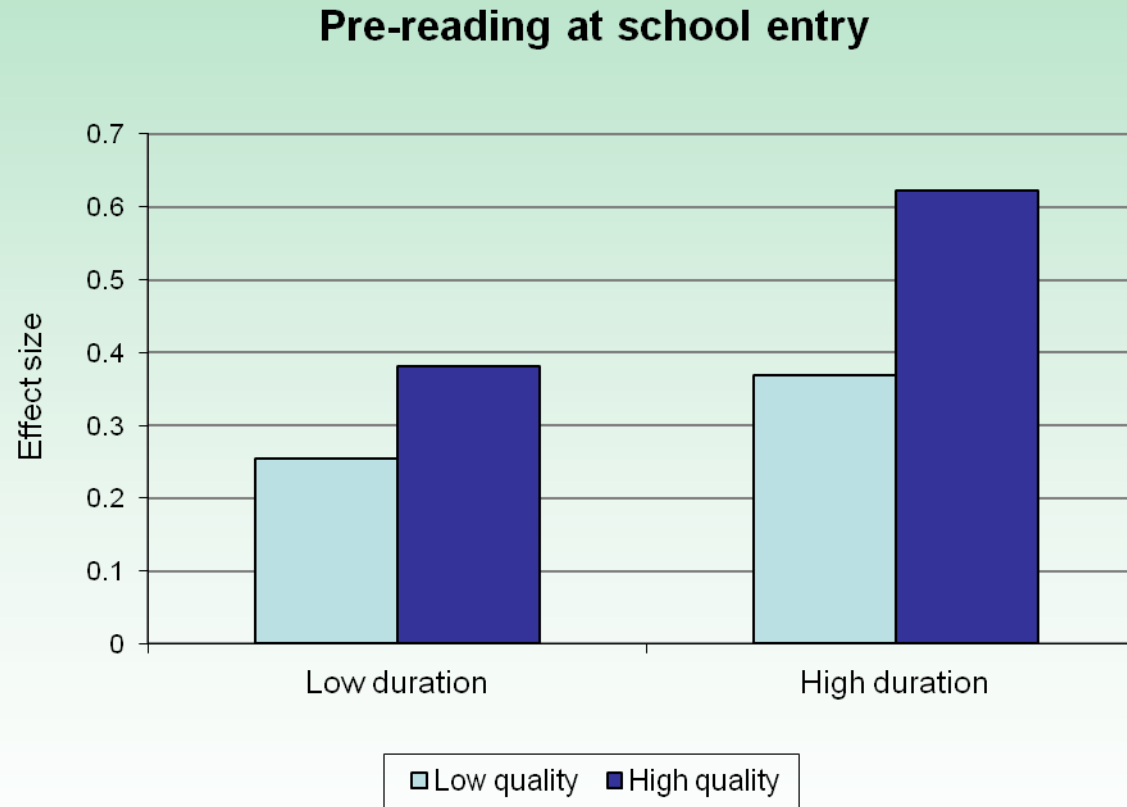
**What is difficult to change:**

- ❖ **Social class**
- ❖ **Parental education**
- ❖ **Living in poverty**

**What we can change:**

- ❖ **The Home Learning Environment**
- ❖ **Pre-school Education**

# Influence of pre-school at age 5



# The influence of pre-school at age 16

Total scores on General Certificate of Secondary Education – end of compulsory schooling

Factors	Effect Size	Description
Age	0.14	Older pupils perform better than younger.
Gender	0.19	Females obtain higher attainment than males.
Ethnicity	0.76	Bangladeshi heritage students higher total GCSE score.
Health problems	0.12	Early health problems = predictor of low attainment.
Behavioural problems	0.29	Early behavioural problems = predictor of low attainment.
Number of siblings	0.17	Three siblings or more predict lower cognitive achievement.
Parents' qualifications	0.59	Higher qualified parent = higher attainment.
Poverty	0.32	Eligible for Free school meal = lower attainment.
Socio-Economic Status	0.31	Higher SES = higher attainment.
Family income	0.29	Pupils from families with high income perform better.
Early years HLE	0.36	Higher Early years HLE = higher attainment.
KS1 HLE	0.11	Moderate computing = higher attainment.
KS3 HLE	0.47	High academic enrichment = higher attainment.
Pre-school attendance	0.31	Attending a pre-school = higher attainment.
Pre-school quality	0.37	High quality pre-school = higher attainment.



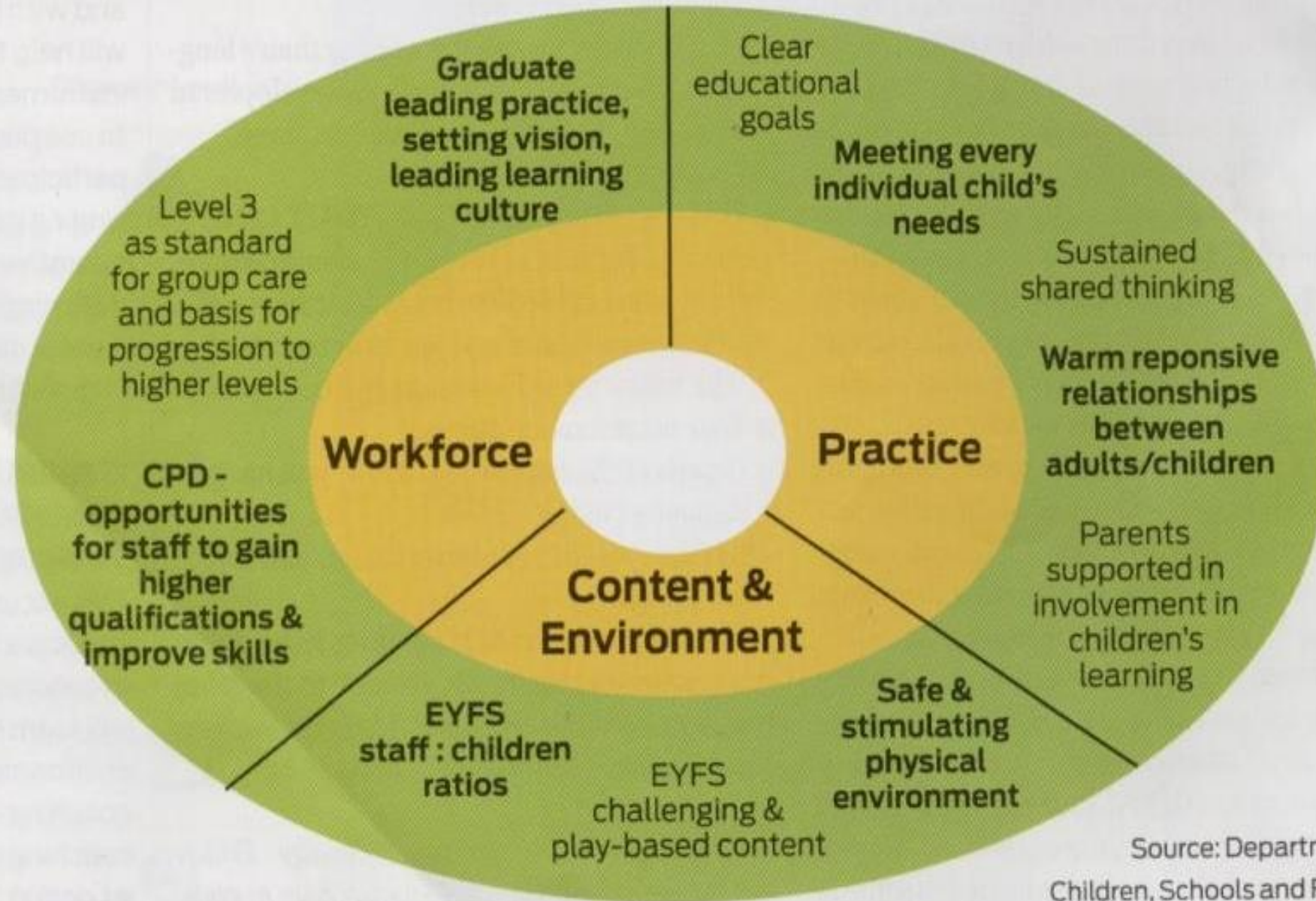
# Solutions: What do effective pre- schools do?





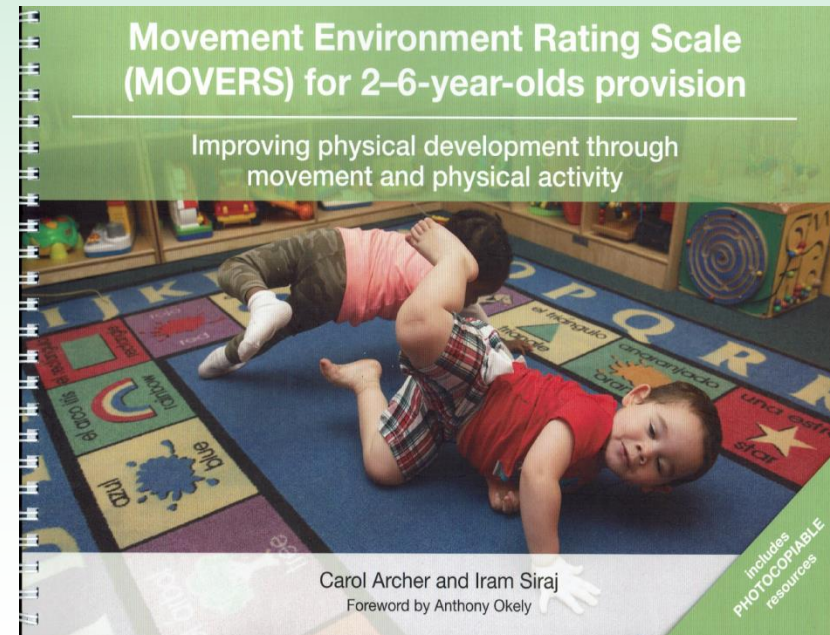
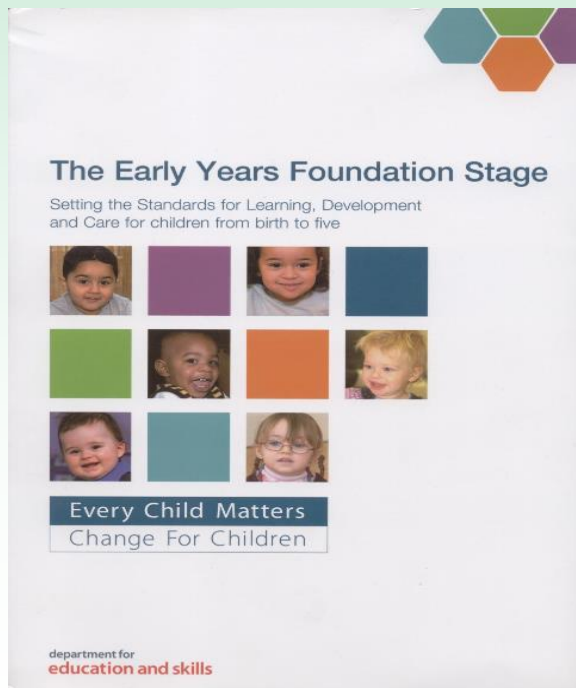
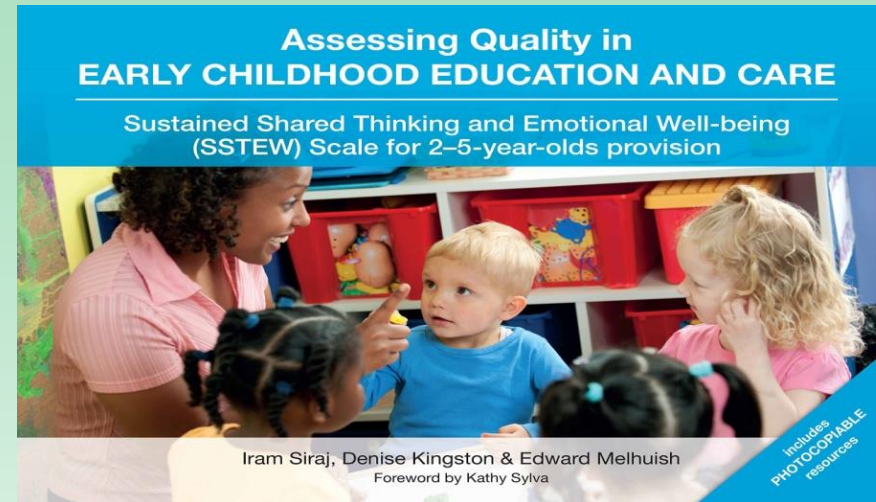
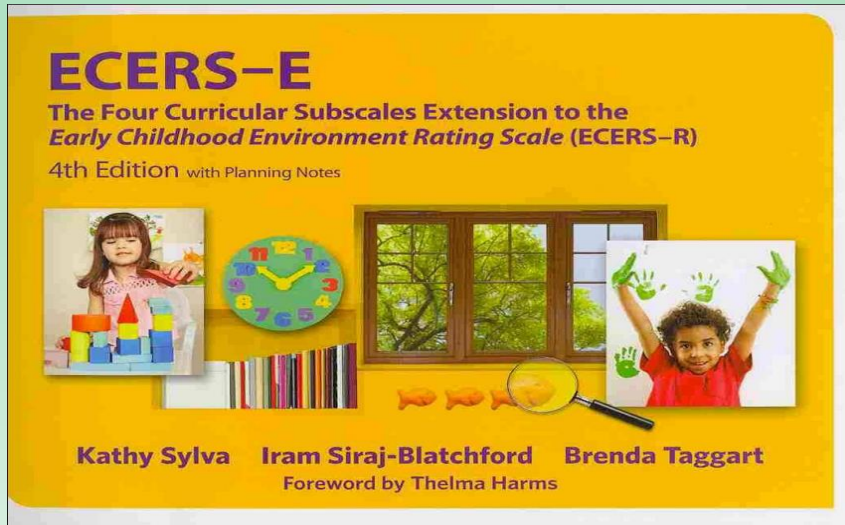
# What quality looks like

Settings - what are the key elements of high quality provision?



Source: Department for Children, Schools and Families

# Effective pre-schools monitor quality





## Effective pedagogy

- ❖ Five areas were identified with were particularly important:
- ❖ Quality of the adult-child verbal interaction.
- ❖ Knowledge and understanding of the curriculum.
- ❖ Knowledge of how young children learn.
- ❖ Adults skill in supporting children in resolving conflicts.
- ❖ Helping parents to support children's learning at home.

# Why invest in early years?

## **OECD (2011) report on PISA results**

“The bottom line: Widening access to pre-primary education can improve both overall performance and equity by reducing socio-economic disparities among students, if extending coverage does not compromise quality.”

## **Why early years is of global concern?**

### **Head US Federal Reserve- Ben Bernanke (2011)**

*“No economy can succeed without a high-quality workforce, particularly in an age of globalization and technical change. Cost-effective schooling is crucial to building a better workforce, but they are only part of the story ..... Research increasingly has shown the benefits of early childhood education and efforts to promote the lifelong acquisition of skills for both individuals and the economy as a whole. The payoffs of early childhood programs can be especially high.”*

**For more information about EPPSE:**

**<http://www.ucl.ac.uk/ioe/research/featured-research/effective-pre-school-primary-secondary-education-project>**

**Or contact**

**Brenda Taggart**

**b.taggart@ucl.ac.uk**