

Early Experience and longer-term effects: Research and Policy

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Populations are changing

Europe 2050: workforce will decrease by 50 million while elderly increase by 50%.

Similar situation in Australia, and other developed countries.

Economic sustainability will require maximizing the capacity of the workforce, with an increase in productivity to maintain living standards.

The impact of family disadvantage upon well-being is persistent.

Early experience is critical in this link.

Two arguments for investing in early childhood.

1. Moral – moral duty to optimise wellbeing.
2. Economic – we all benefit in the long-term

OECD 2012: Across OECD, 20% do not achieve basic minimum skills. The problem is twice as great for disadvantaged groups.

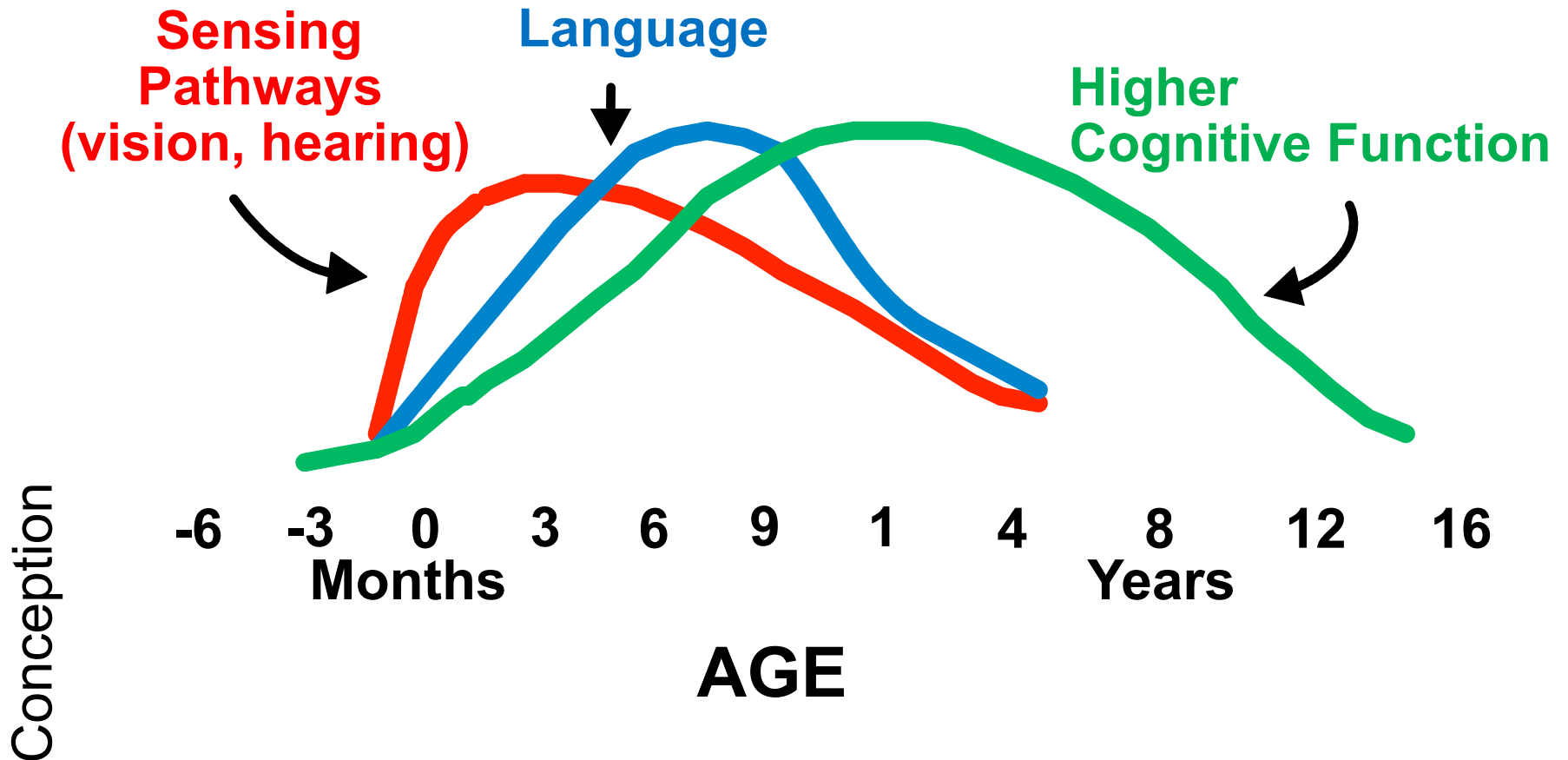
Disadvantaged groups have greater risk:

- for poor health
- Social, emotional, behavioural problems
- Attention, cognitive and language problems
- Affects educational progress, literacy, numeracy, social skills, employability, health, adjustment and criminality.

EVIDENCE

0-3 years

Sensitive periods & Synaptic Development

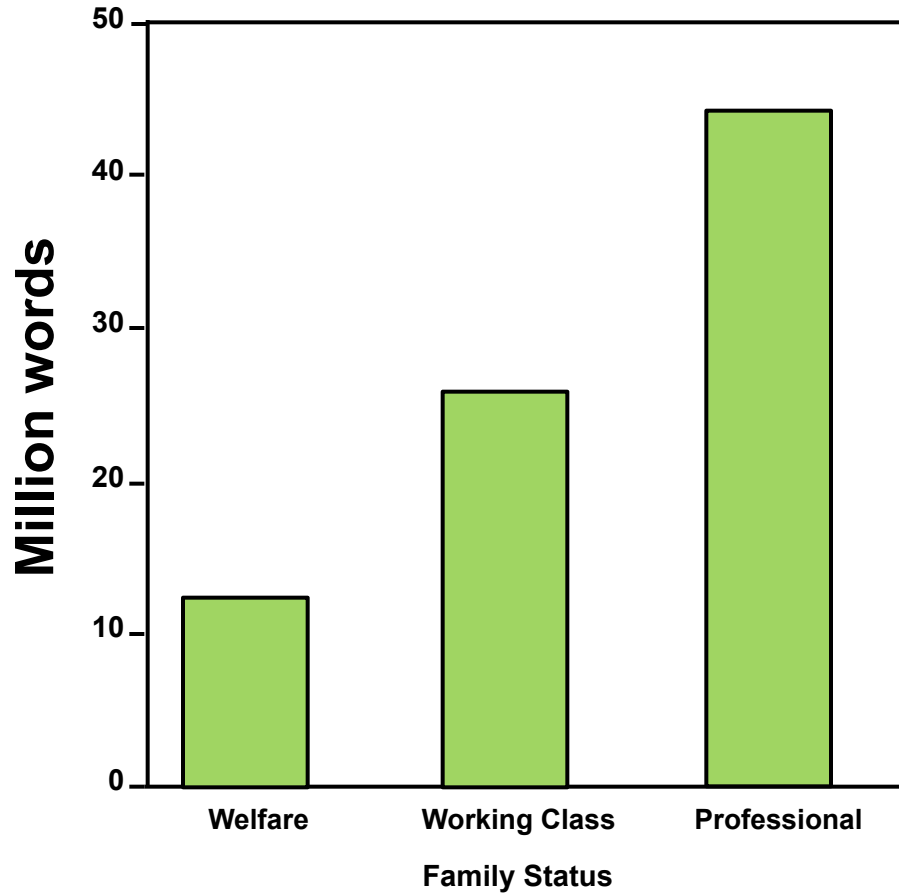


THE IMPORTANCE OF THE CHILD'S LANGUAGE ENVIRONMENT

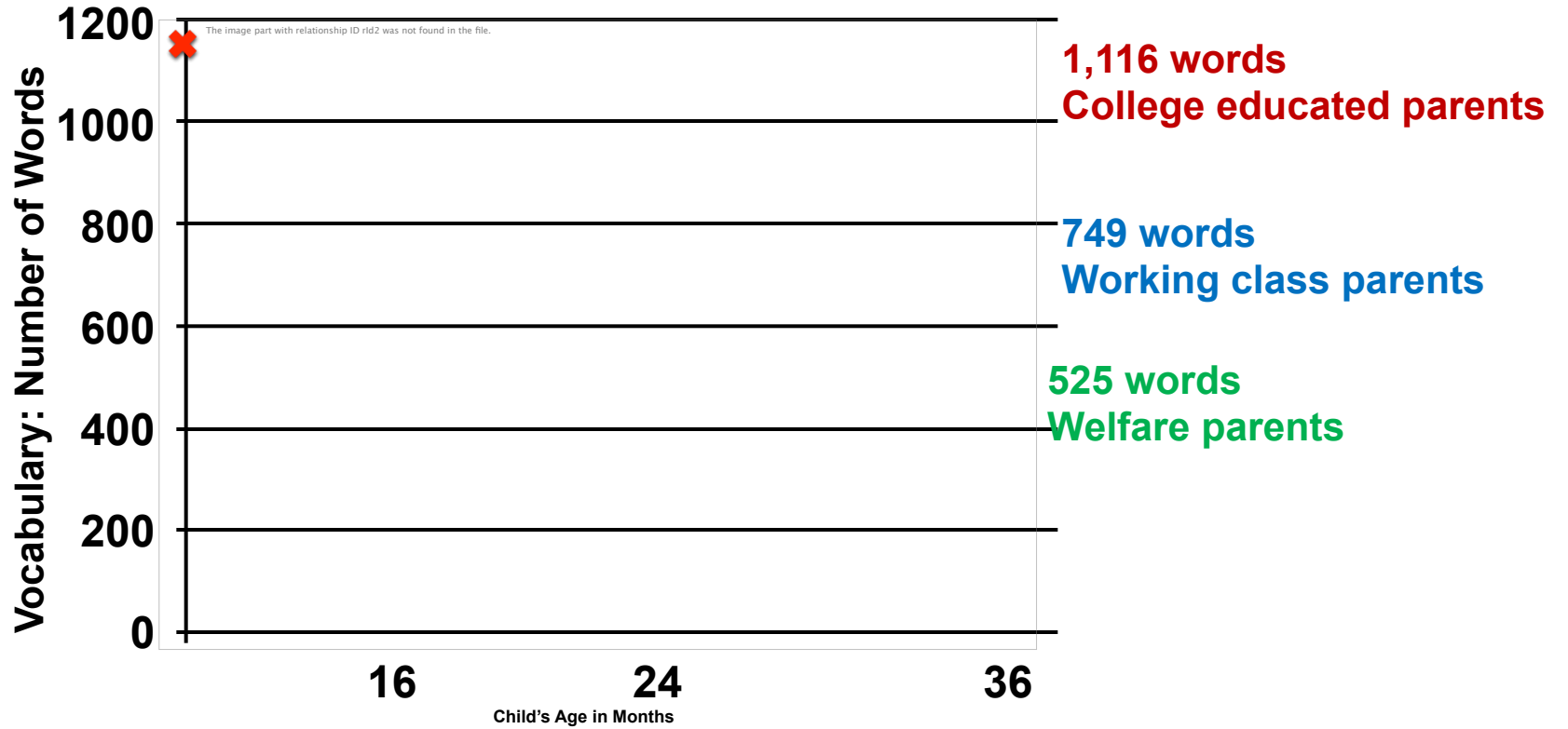
LANGUAGE DEVELOPMENT UNDERPINS
COGNITIVE, EDUCATIONAL AND SOCIAL
DEVELOPMENT

A CHILD WITH POOR LANGUAGE AT 3 YEARS
WILL BE AT RISK UNLESS INTERVENTION TAKEN.

Words Heard In 4 Years



Achievement Gap starts early



London Day Care Project - 1980's (Melhuish et al., 1990)

255 children studied from birth to 6 years of age

4 groups

1. Home - no non-parental care
2. Relative day care - grandmother etc.
3. Childminder – individual carer
4. Nursery – Group day care

We looked at the quality of interactions
in home and childcare environments
over the first 3 years:

Particularly

- Affection
- Communications
- Responsiveness

MAJOR RESULTS

After controlling for family background factors

1. Language development related to quality of care in first 3 years
 - particularly communication and responsiveness in interactions
2. These effects persisted to 6 years of age; when language and literacy showed benefits
3. Stability of care associated with quality of care.

Results from this study informed the childcare regulations in the 1989 Children Act for the UK.

EVIDENCE

3 years +

General Population - EPPE STUDY in UK

(3+ yrs)

25 nursery classes

590 children

34 playgroups

610 children

31 private day nurseries

520 children

20 nursery schools

520 children

24 local authority day care nurseries

430 children

7 integrated centres

190 children

home

310 children

School starts

6yrs

7yrs

16yrs

Key Stage 1

600 Schools

approx. 3,000 chd

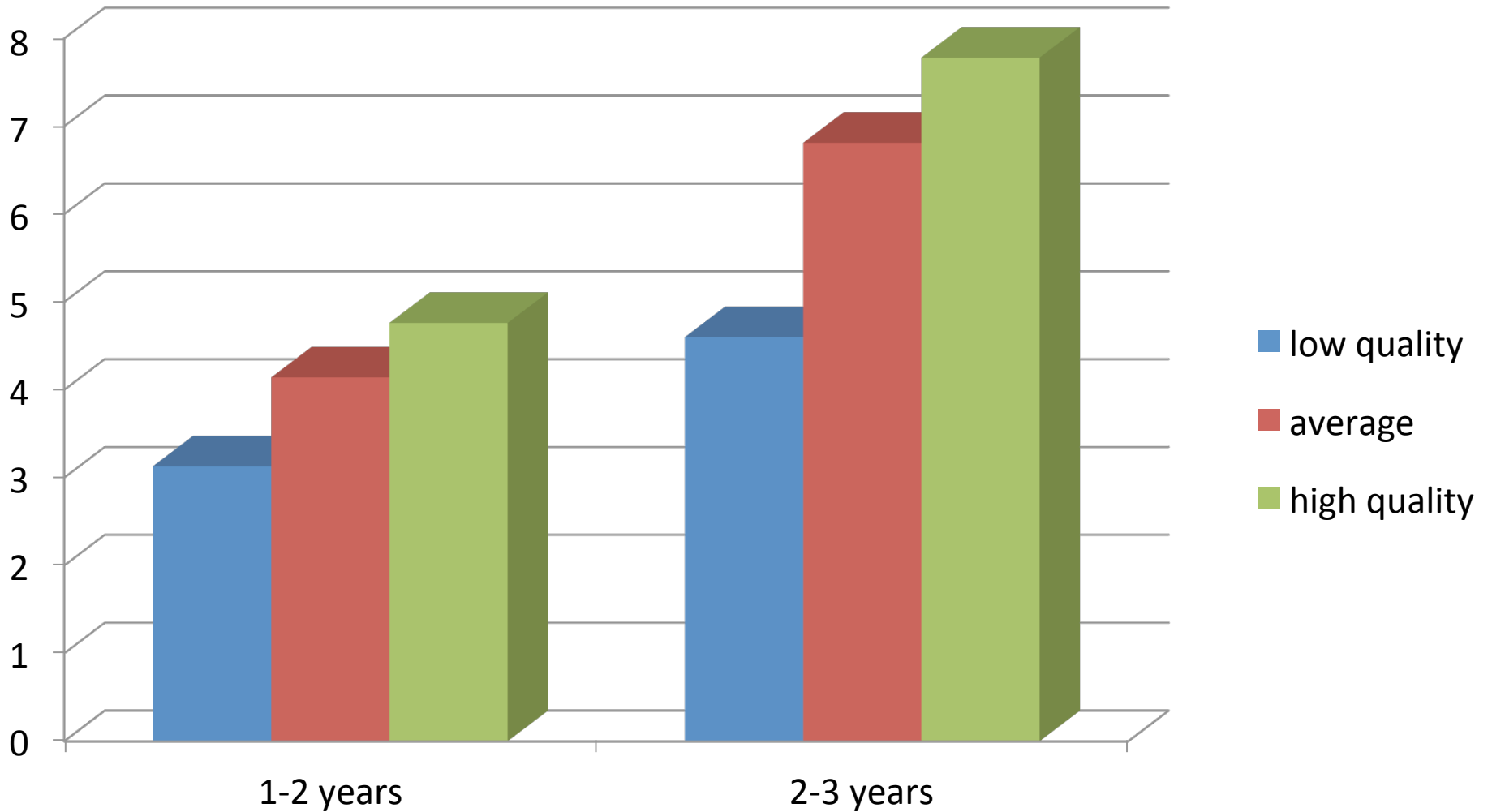
Key Stage 2

800 Schools


approx. 2,500 chd

Quality and Duration matter

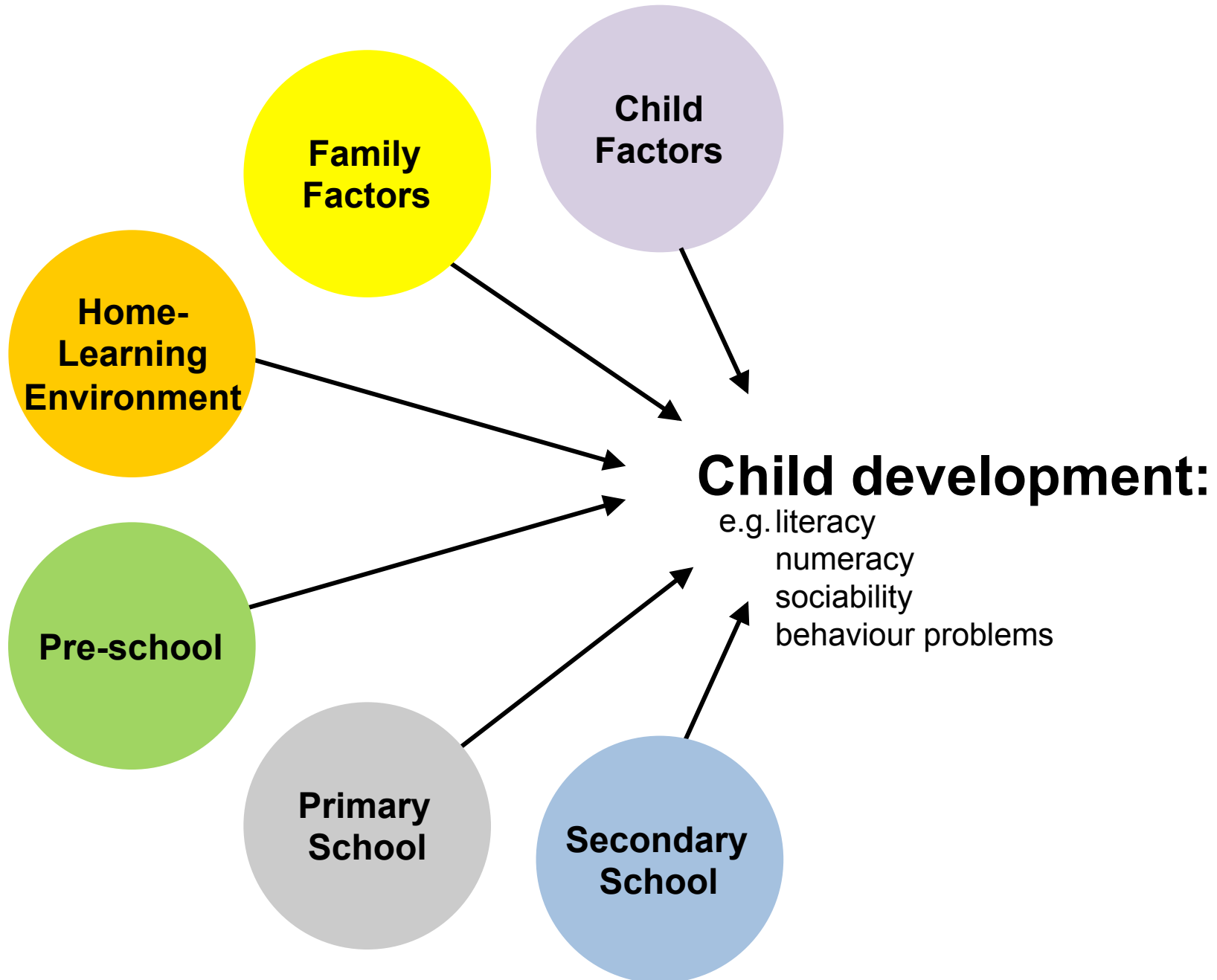
(months of developmental advantage on literacy)



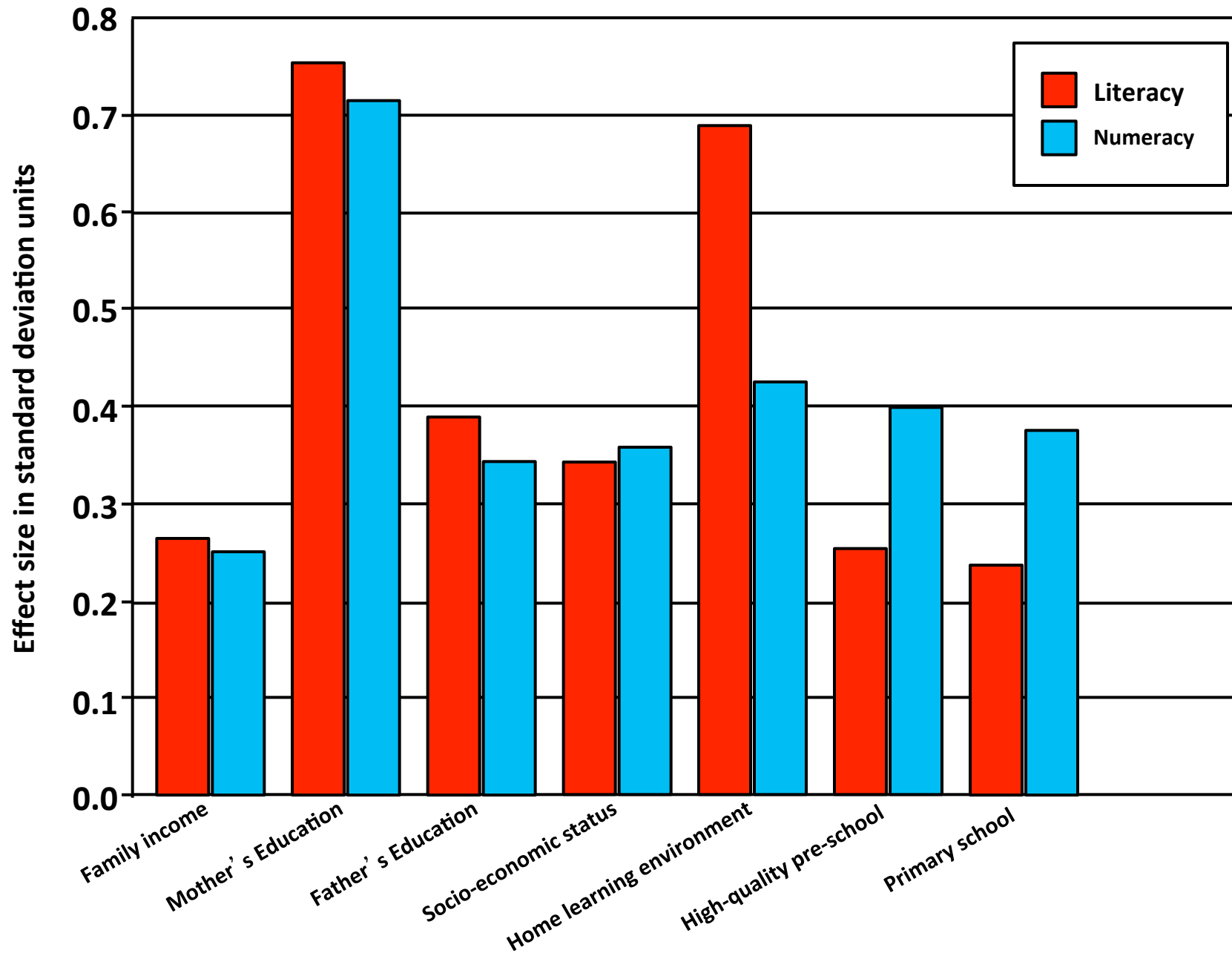
Social class and pre-school on literacy (age 7)

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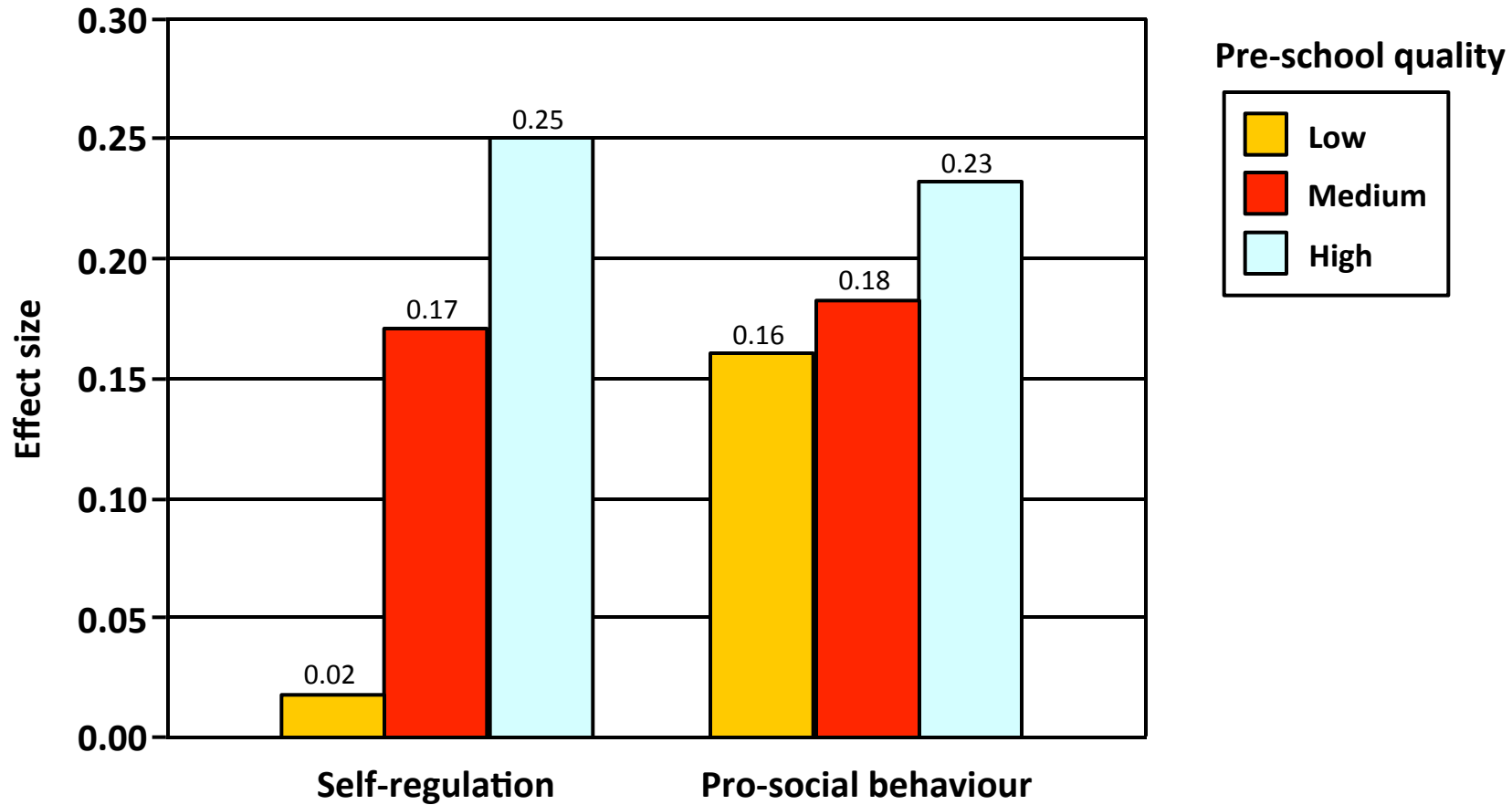
Modelling later outcomes



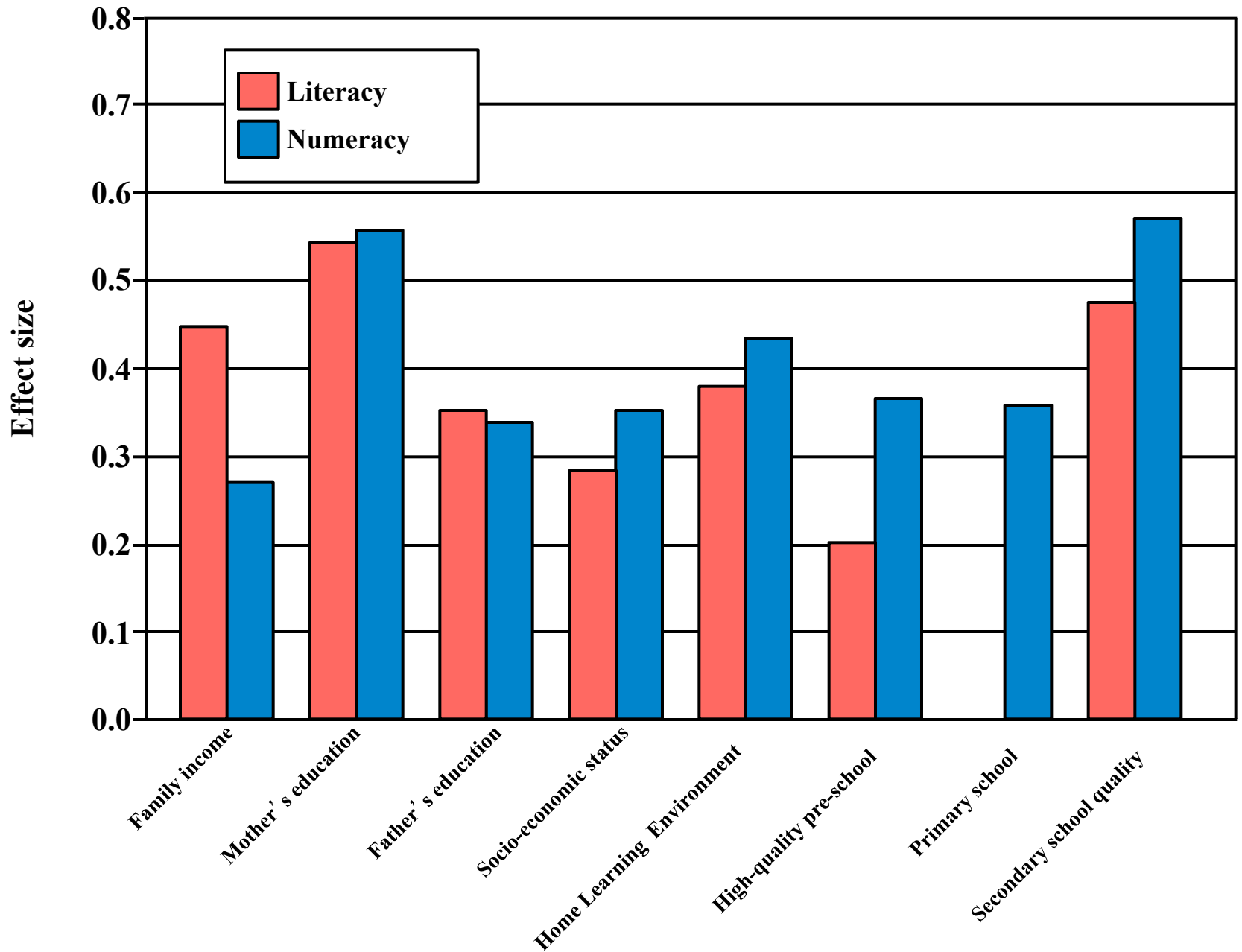
Effects upon Age 11; literacy and numeracy



Pre-school Quality and Self-regulation and Pro-social behaviour (age 11 and 14)



Effect sizes for 16 year olds



EFFECTIVE PRE-SCHOOL PROVISION IN NORTHERN IRELAND (EPPNI)

Study in Northern Ireland

850 children followed from 3 to 11 years of age.

Similar results to EPPE in England.

At age 11, allowing for all background factors,

The effects of quality of pre-school persist until age 11 years

High quality pre-school – improved English and maths,

And improved progress in maths during primary school.

Children who attended high quality pre-schools were **2.4** times more likely in English, and **3.4** times more likely in mathematics, to attain the highest grade at age 11 than children without pre-school.

Policy Impact in the UK

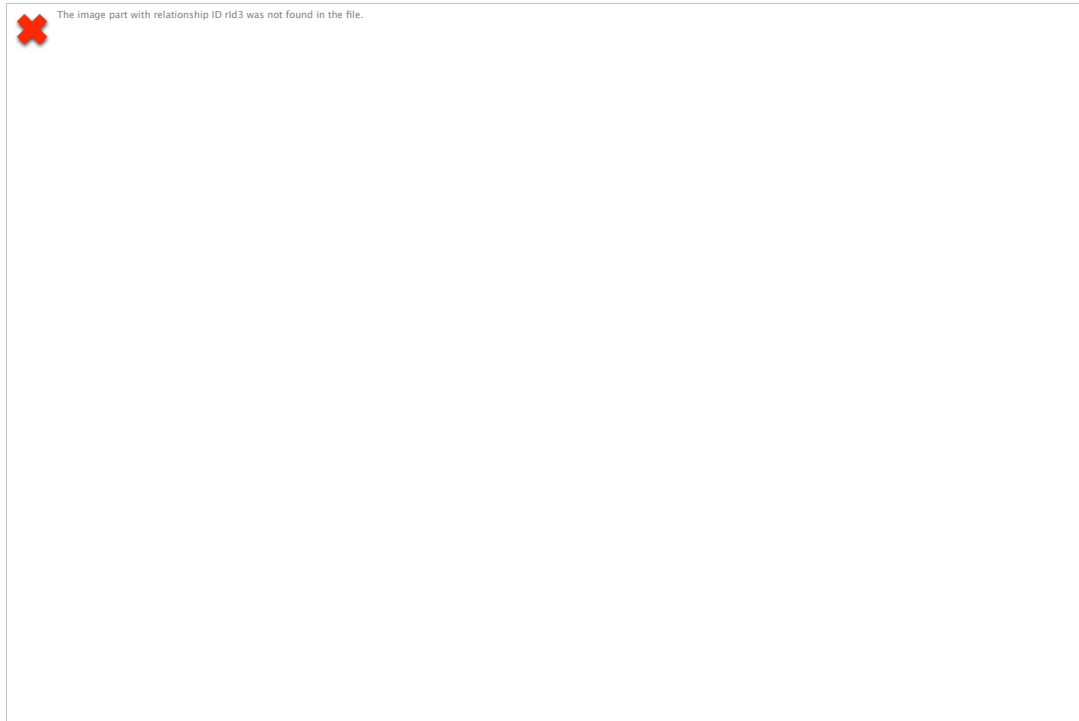
- Free ECEC place from 3 years -15hours/week
- Free ECEC place from 2 years -15hours/week
(40% most deprived)
- 2016 15 hours/week increases to 30 hours/week
- Maternity leave increased to 1 year
- New Early Years curriculum
- New training programmes for EY staff
- Acceptance that EY spending is part of government responsibilities

SEED STUDY 2013-2020

COMPARISON WITH EPPE – 1997 -1999

- A comparison with the EPPE results for the process quality measures showed a noteworthy increase on the centres quality in the SEED interim results.

Figure 16: Managers level of qualification relevant to working with children for EPPE Project and SEED interim data – percentages

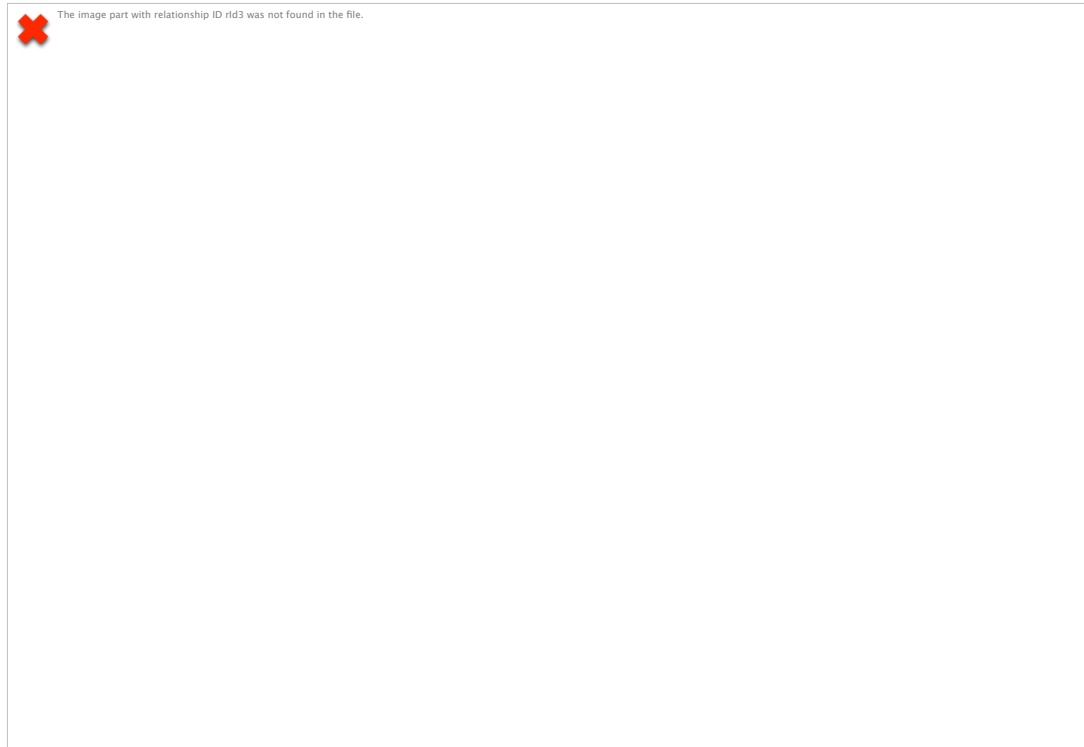


The percentage of managers with a degree (Level 5+) rose from 43% to 66%.

Figure 17: Staff level of qualification relevant to working with children for EPPE and SEED interim data - Percentages



Figure 15: Mean ECERS-R and ECERS-E total scores for EPPE Project and SEED interim data



International evidence

Evidence is accumulating from many countries consistent with the view that ECEC is an essential part of the infrastructure for optimising global wellbeing of populations

In **Norway**, free preschool available to children aged 3 years during the 1960's and 1970's – huge increase in preschool attendance.

- Analysis showed children attending preschool:
 1. had higher educational levels and
 2. better job outcomes later in life.
 3. higher income in later life

In **France**, preschool expanded in 1970's
– huge increase in preschool attendance.

- Analysis showed preschool:
 1. leads to higher income in later life
 2. reduces socio-economic inequalities - children from less advantaged backgrounds benefit more.

Switzerland has also expanded preschool.

- Improved intergenerational education mobility
- especially beneficial for disadvantaged children

Denmark

Bauchmüller, Gørtz and Rasmussen (2011)

http://www.cser.dk/fileadmin/www.cser.dk/wp_008_rbmgaawr.pdf

Danish register data on whole population of children and centres

Quality indicators of preschool:

- 1) the staff-to-child ratio,
- 3) % of pedagogically trained staff ,
- 5) the stability of the staff (staff turnover).

Controlling for background factors, **better preschool quality** linked to better test results in 9th grade.

“the fact that we find long-lasting effects of pre-school even after 10 years of schooling is quite remarkable”

PISA results for 2009

15-year-olds that had attended pre-school were on average a year ahead of those who had not.

Pre-school participation is strongly associated with reading at age 15 in countries that

1. sought to improve the quality of pre-school education
2. provide more inclusive access to pre-school education.

OECD 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.”

OECD (2011). *Pisa in Focus 2011/1: Does participation in pre-primary education translate into better learning outcomes at school?*. Paris: OECD. Available at www.pisa.oecd.org.dataoecd/37/0/47034256.pdf

Gains from ECEC

Education and Social Adjustment

- Educational Achievement improved
- Special education and grade repetition reduced
- Behaviour problems, delinquency and crime reduced
- Employment, earnings, and welfare dependency improved
- Smoking, drug use, depression reduced

Decreased Costs to Government

- Schooling costs
- Social services costs
- Crime costs
- Health care costs

LESSONS

1. Early years are very important
2. ECEC is part of infrastructure for a successful society (example)
3. High quality ECEC boosts development
4. Parenting is also very important
5. ECEC can lift population curve.
6. Disadvantaged children benefit greatly from high quality ECEC.

Example References

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