

Effective Pre-School, Primary and Secondary Education Project EPPSE 1997 – 2014

The Power of Pre-school: Evidence from EPPSE

Tower Hamlets 11th March 2015



Research funded by the UK Department for Education

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This presentation



- ❖ **Background to the research**
- ❖ **The short, medium and long term benefits of pre-school**
- ❖ **Measuring ‘quality’ and effective pedagogy**

Policy climates – What a difference 15 makes!

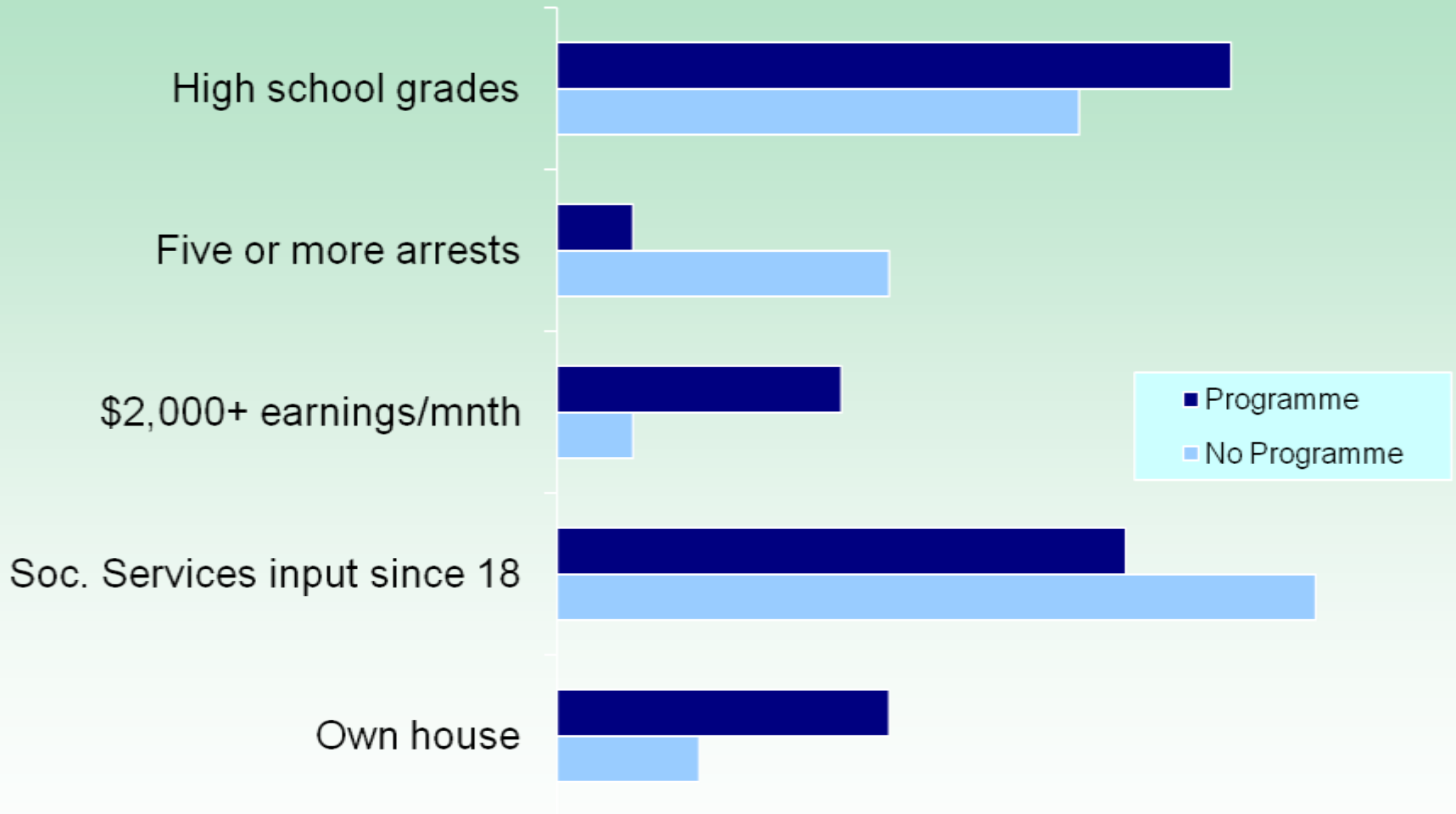
Late 1990ies

- ❖ **Standards** – increasing interest
- ❖ Interest in the developing an early years **curriculum**
- ❖ **Little regulation**
- ❖ **Access** by geography or income
- ❖ Poorly **qualified** workforce
- ❖ Variable **quality** of provision
- ❖ Concern about **disadvantaged** families

Early 2010ies

- ❖ **Standards** – children's development monitored, settings monitored
- ❖ Statutory **curriculum guidelines**
- ❖ **Highly regulated** through the Office for Standards in Education
- ❖ Wider local choices and universal free **access** for all 3 – 4 year olds
- ❖ **Qualifications** framework
- ❖ **Quality** audits
- ❖ Children's Centres and Sure Start programmes in areas of **disadvantage**

Then USA's Highscope/Perry Results at Aged 27



(from Schweinhart & Weikart, 1993)

Aims

- ❖ **To compare children from a different social and cultural backgrounds who have differing pre-school experiences**
- ❖ **To separate out the effects of pre-school from the effects of primary school**
- ❖ **To establish whether some pre-school centres are more effective than others**
- ❖ **To discover the characteristics of effective pre-schools**
- ❖ **To investigate what helps disadvantaged children**

Design of EPPSE : 6 Local Authorities, 141 pre-schools, 3,000 children

Pre-school
(3 – 5 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 |

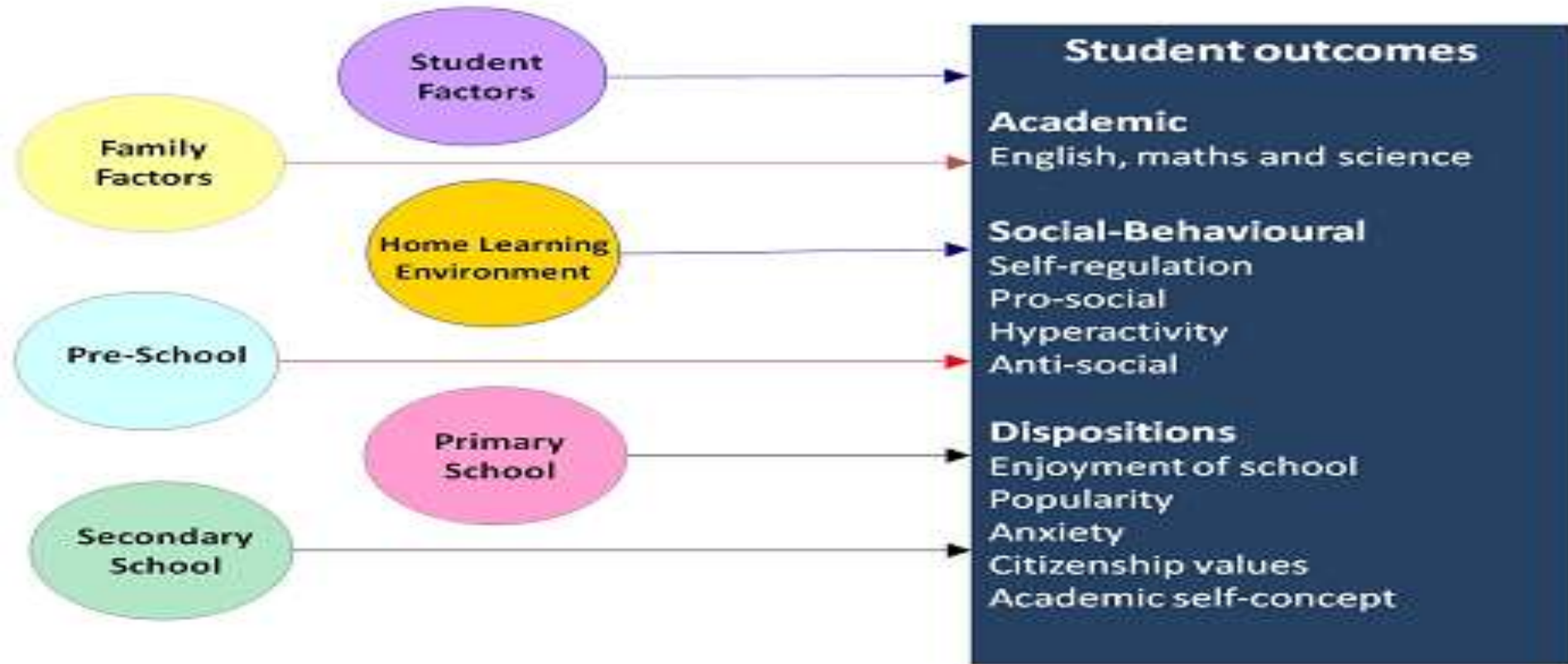
| | | | |
|---------|---------|---------|---------|
| Age | Age | Age | Age |
| 5-7 | 7-11 | 11-14 | 14-16+ |
| Key | Key | Key | Key |
| Stage | Stage | Stage | Stage |
| 1 | 2 | 3 | 4 |
| 862 | 1,128 | 739 | 700+ |
| schools | schools | schools | schools |

Sources of data

- ❖ Academic and social assessments over time
- ❖ Family background information over time
- ❖ Interviews with staff in pre-school and schools
- ❖ 'Quality' rating scales in pre-school and schools
- ❖ Case studies of effective pre-schools and schools



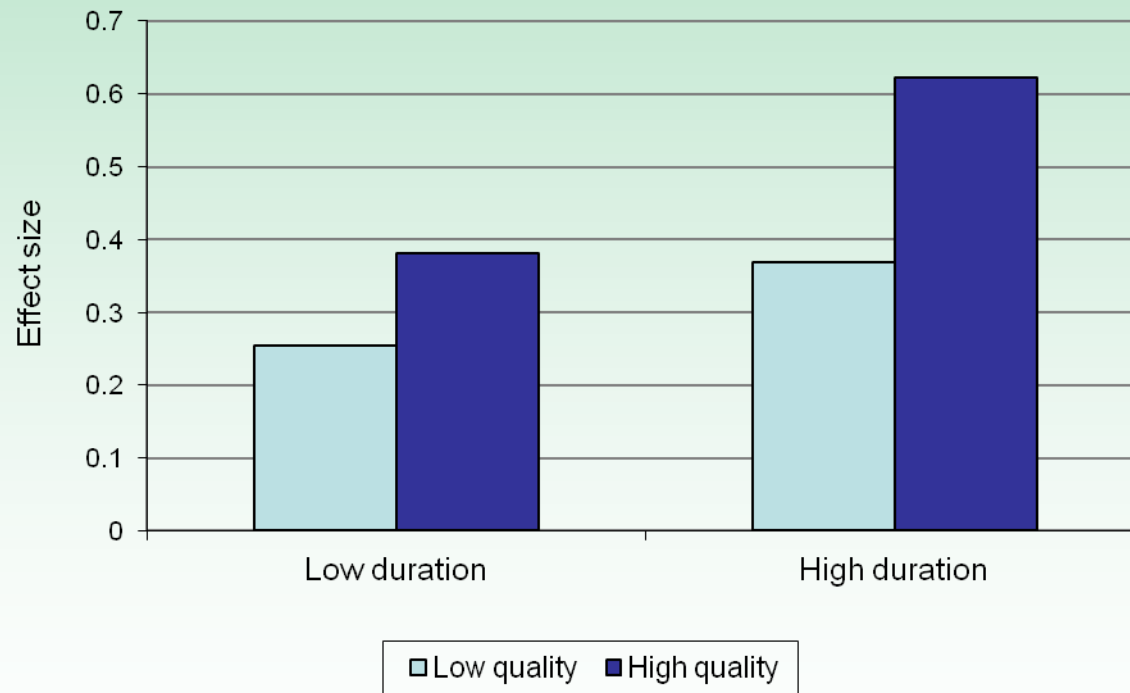
Influences on outcomes



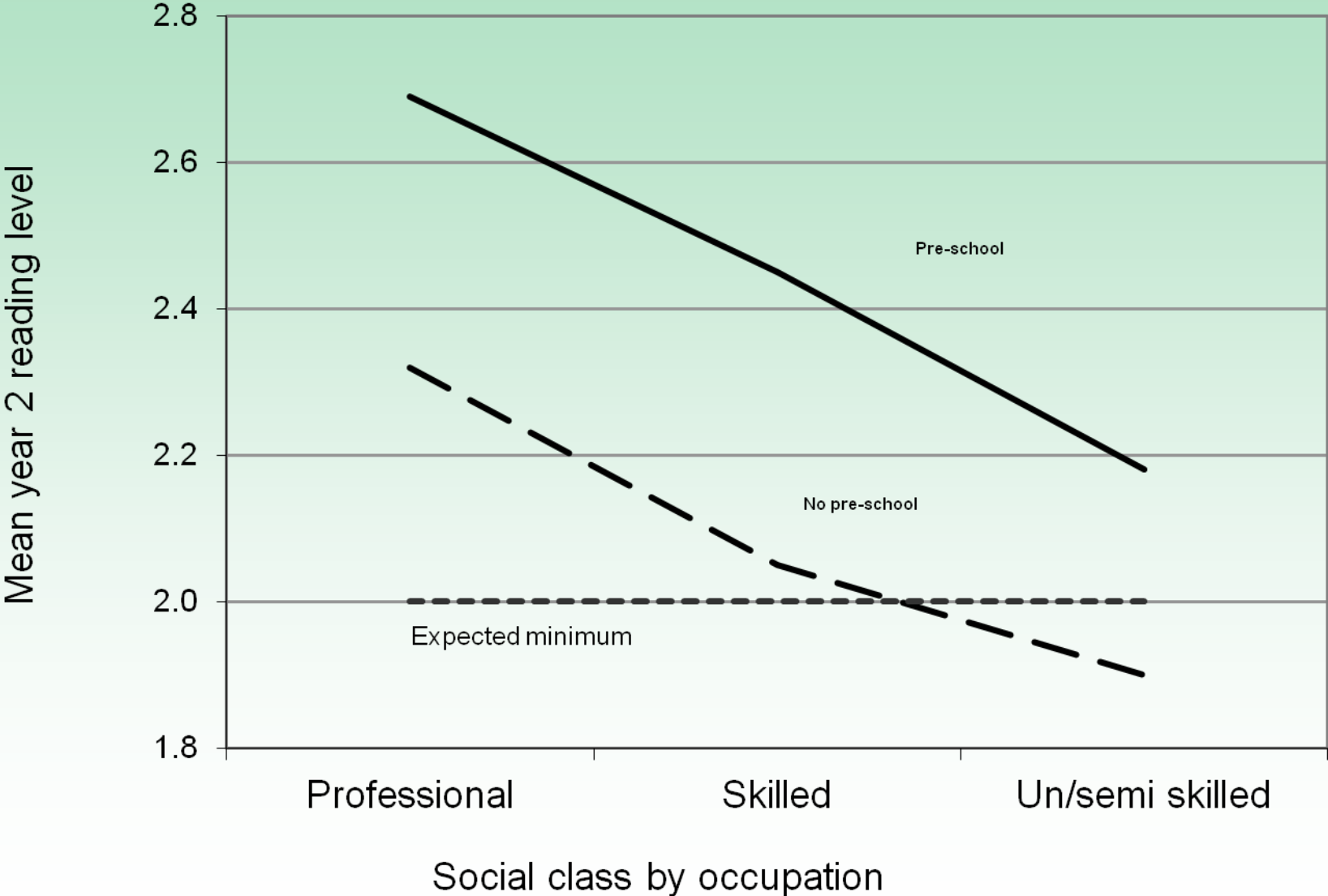
EPPSE ‘value added’ design takes account of a child’s background before analysing data

Quality and duration - age 5

Pre-reading at school entry



Pre-school, reading and social class age 7



Background & pre-school: English - age 7

| Factors | Effect Size | Description |
|-------------------------------|-------------|--|
| Age | 0.38 | Older children higher attainment. |
| Gender | 0.24 | Girls show higher attainment than boys. |
| Birth weight | 0.72 | Normal birth weight higher than very low. |
| Number of siblings | 0.25 | Children from larger families show significantly lower attainment. |
| Developmental problems | 0.54 | Early developmental problems = predictor of low attainment. |
| Parents' qualification | 0.56 | Higher qualified parent = higher attainment. |
| Socio-economic status | 0.62 | Higher SES = higher attainment. |
| Free School Meals | 0.28 | Eligible for FSM = negative predictor. |
| Early years HLE | 0.79 | Higher Early years HLE = higher attainment. |
| Pre-school | 0.29 | Attending vs. non-attending |
| ECERS- E by duration | 0.52 | High quality and long duration = better results |

Background & primary school: English - age 11

| Factors | Effect Size | Description |
|------------------------------|-------------|--|
| Gender | 0.29 | Girls show higher attainment than boys. |
| Birth weight | 0.47 | Normal birth weight higher than very low. |
| Ethnic groups | 0.17 | Only White European heritage lower than children of White UK heritage. |
| Need for EAL support | 0.59 | Need of EAL support = predictor of low attainment. |
| Developmental problems | 0.23 | Early developmental problems = predictor of low attainment. |
| Parents' qualification | 0.76 | Higher qualified parent = higher attainment. |
| Socio-economic status | 0.34 | Higher SES = higher attainment. |
| Free School Meals | 0.23 | Eligible for FSM = negative predictor. |
| Early years HLE | 0.70 | Higher Early years HLE = higher attainment. |
| KS1 HLE | 0.18 | Lower home computing better than high |
| Pre-school | 0.22 | Attending vs. non-attending |
| Pre-school quality (ECERS-E) | 0.29 | High quality pre-school = higher attainment |
| Pre-school effectiveness | 0.25 | Highly effective pre-school = higher attainment |
| Primary school effectiveness | 0.24 | Highly effective primary school = higher attainment |

Background & pre-school: English - age 14

| Factors | Effect Size | Description |
|--|-------------|--|
| Age | 0.19 | Older pupils perform better than younger. |
| Gender | 0.46 | Females obtain higher attainment than males. |
| Birth weight | 0.37 | Normal birth weight higher than very low. |
| Developmental problems | 0.21 | Early developmental problems = predictor of low attainment. |
| Behavioural problems | 0.18 | Early behavioural problems = predictor of low attainment. |
| Number of siblings | 0.31 | Three siblings or more predict lower cognitive achievement. |
| Mother's Age | 0.16 | Pupils with older mothers have better cognitive attainment. |
| Parents' qualifications | 0.61 | Higher qualified parent = higher attainment. |
| Free School Meals | 0.30 | Eligible for FSM = negative predictor. |
| Socio-Economic Status | 0.29 | Higher SES = higher attainment. |
| Family income | 0.40 | Pupils from families with high income perform better. |
| Early years HLE | 0.29 | Higher Early years HLE = higher attainment. |
| KS1 HLE | 0.24 | Frequent outdoors activities are associated with higher achievement. |
| KS2 HLE | 0.19 | Moderate computing usage is better than frequent computer usage. |
| Pre-school effectiveness (Pre-reading) | 0.20 | Highly effective pre-school=higher attainment. |

Influences on total GCSE score - age 16

| 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. |
| Free School Meals | -0.32 | Eligible for FSM = 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 (ECERS-E) | 0.37 | High quality pre-school = higher attainment. |

Policy Question

Policy Question: What kinds of pre-school provide the best outcomes for children?

EPPE finding: *The quality of pre-school experience is directly related to the intellectual, social and behavioural development of children. “EPPE conclude that good quality provision can be found across all types of pre-school settings but is higher overall in integrated learning and childcare centres, nursery school and nursery classes. (HMT, 2004 p66)*

Policy Development: , “525,000 additional childcare places have been created, benefiting 1.1 million children” (HMT, 2004, p22), 1,279 Neighbourhood Nurseries have been opened (HMT, 2004, p26), and 2,599 Children’s Centres will be in place by 2008 (p1) with the promise of a “Children’s Centre in every community by 2010” (HMT, 2004, p33).

Policy Question

Policy Question: What kind of workforce?

EPPE finding: *Better quality pre-school centres are associated with better outcomes, with key explanatory factors being: staff with higher qualifications, staff with leadership skills and long-serving staff; trained teachers working alongside and supporting less qualified staff; staff with a good understanding of child development and learning and strong parental involvement” (HMT, 2004, p66)*

Policy Development: “£125 million workforce Transformation Fund that seeks out to “ensure that all full daycare settings are led by a graduate qualified early years professional... and there will be single qualification framework and greater opportunities for existing workers to increase their skills.” (HMT, 2004, p45)

How we measured quality

Two Early Childhood Environment Rating Scales and the Care-giver Interaction Scale

ECERS-R

- ❖ Based on observation – 7 sub-scales
 - ❖ Space and furnishings
 - ❖ Personal care routines
 - ❖ Language reasoning
 - ❖ Activities
 - ❖ Interaction
 - ❖ Programme structure
 - ❖ Parents and staff
- Harms, Clifford & Cryer (1998)

ECERS-E

- ❖ Based on observation – 4 sub-scales
 - ❖ Literacy
 - ❖ Mathematics
 - ❖ Science and environment
 - ❖ Diversity
- Sylva, Siraj-Blatchford & Taggart (2003)

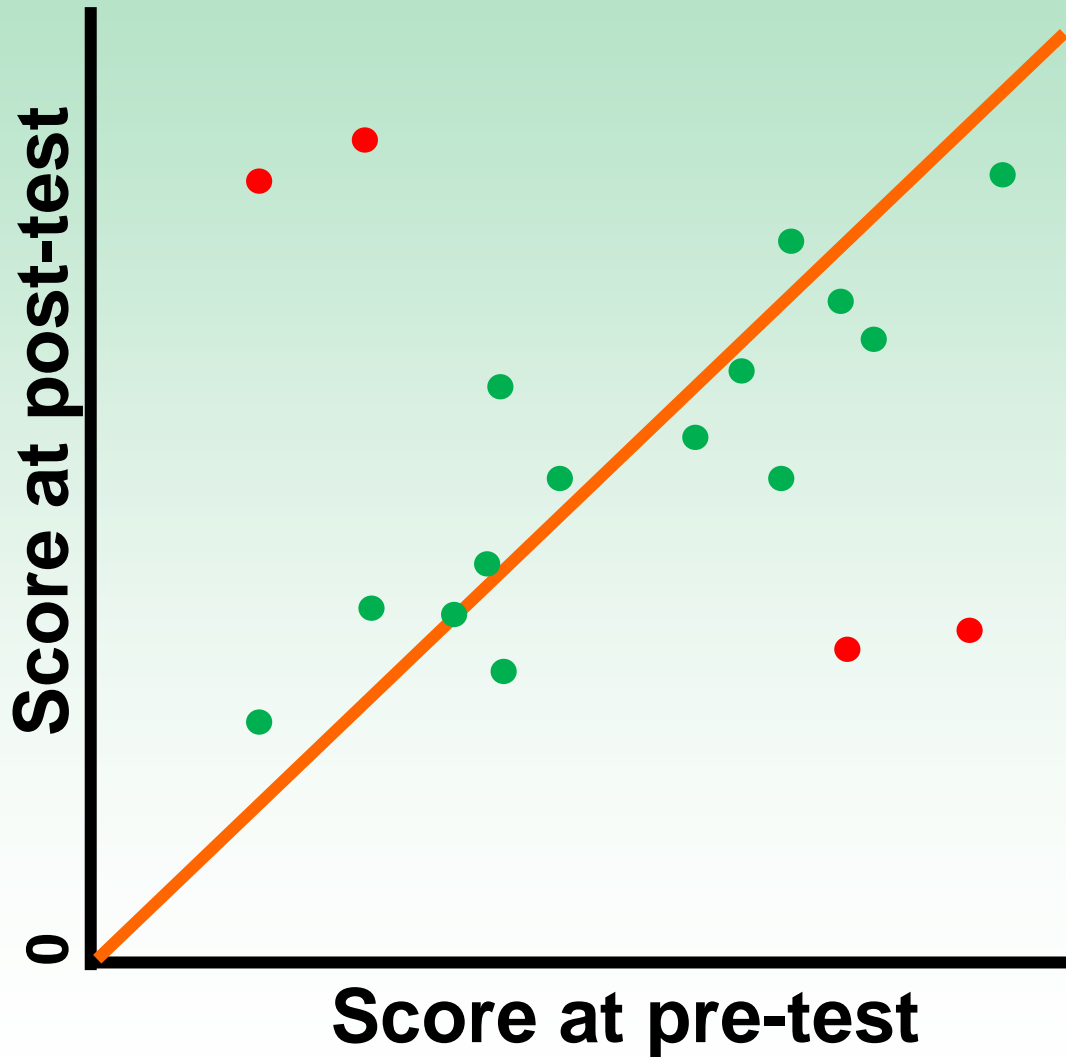
Care-giver Interaction Scale – 26 item scale that measures: Positive Relations, Punitiveness, Detachment and Permissiveness

Relationships exist between the qualifications of staff and measured/observed quality and between quality and child outcomes.

Main findings: ECERS-R and E

- ❖ **Scores on ECERS-R were positively related to ‘Cooperation/Conformity’**
- ❖ **Scores on ‘social interaction’ were positively related to ‘Independence and concentration’ and ‘Peer sociability’**
- ❖ **ECERS-E were positively related to pre-reading, non-verbal reasoning and number skills**
- ❖ **Sub-scales scores were related to ‘Independence and concentration’**

How we observed pedagogy : Identifying outliers.



Studying pre-schools

Areas of study

Centre profile Staffing Management and leadership
Organisation Parental involvement Ethos
Curriculum Pedagogy Work with the community

Studied through

Documentary analysis Staff interviews
Teacher observations Pupil observations
Interviews with staff, centre manager and parents

What do effective pre-school do

- ❖ **Challenging interactions with ‘sustained shared thinking’**
- ❖ **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**

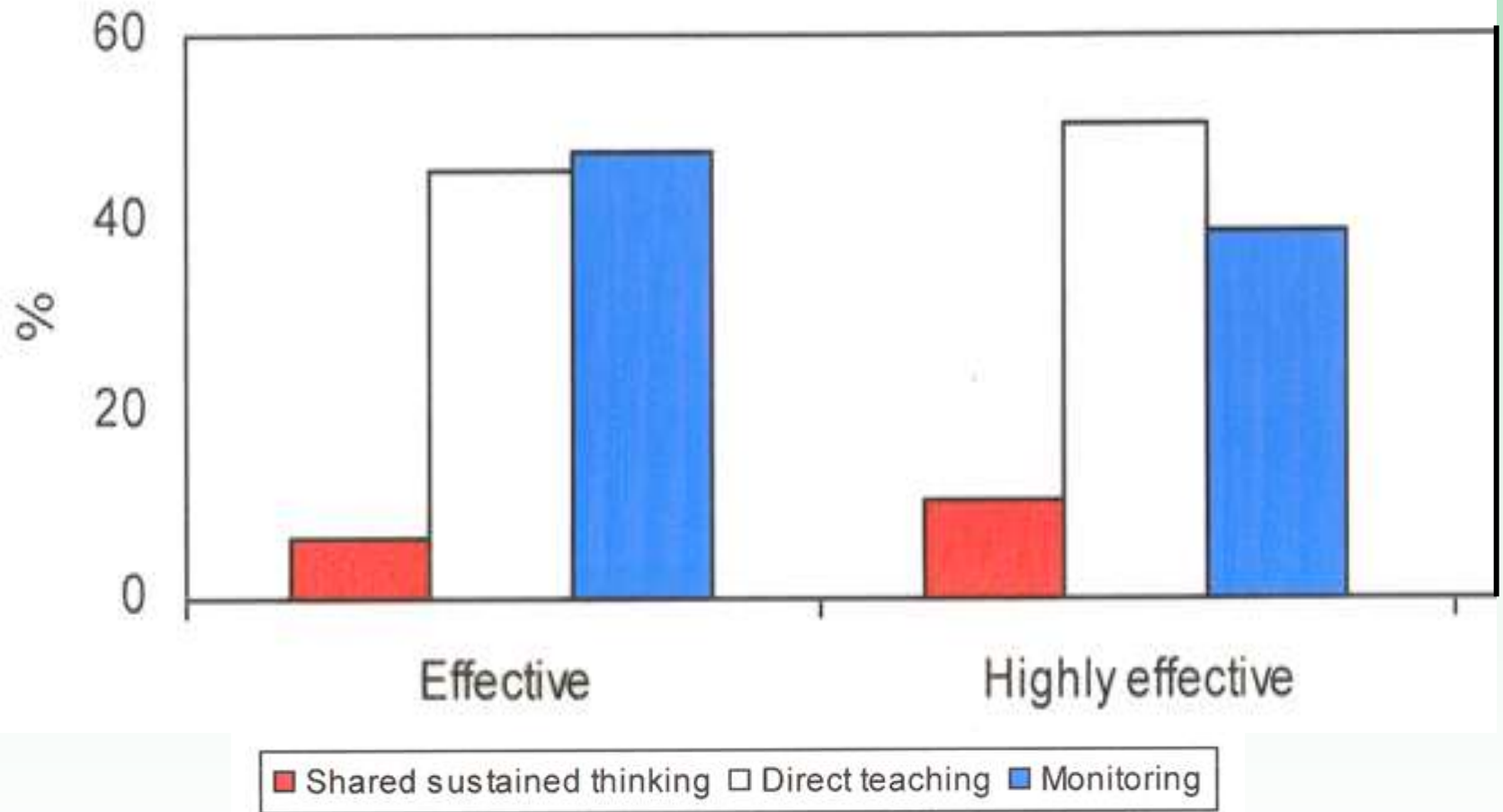
Sustained shared thinking

More than just a conversation

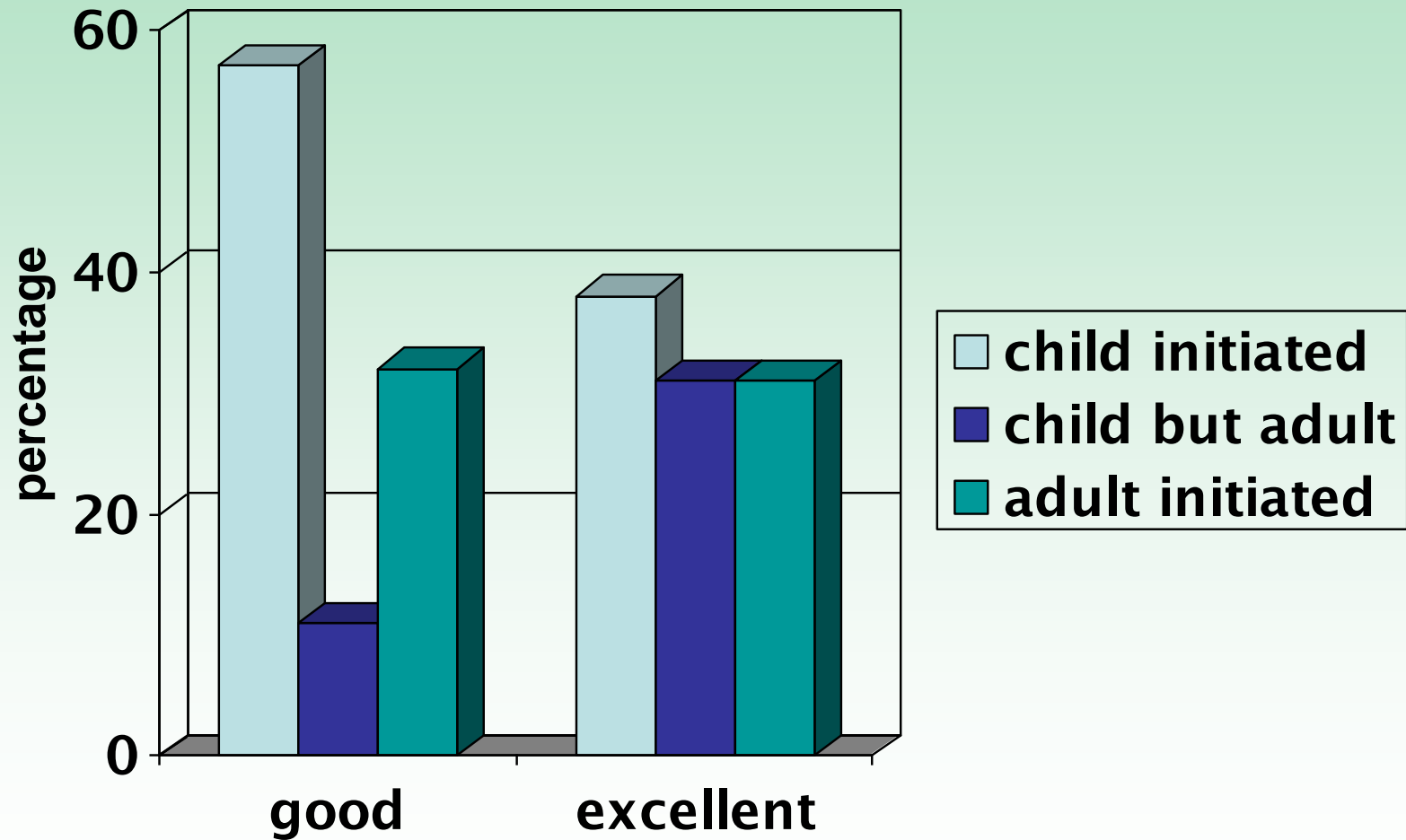
Working together in an intellectual way to solve a problem, clarify a concept, evaluate activities, extend a narrative etc.

Both parties must contribute to the thinking and it must develop and extend.

Adult interactions



Adult and child initiated activities



The impact of EPPSE

- ❖ **At National level: Treasury and Spending Review. Evidence at Select Committees. Briefing at No 10. etc.**
- ❖ **At practitioner level: Focus on effective pedagogy, quality audits and issues of equity and social justice.**

**For further information about
EPPSE visit our website at:**

<http://eppe.ioe.ac.uk>

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