

Learning at home and school across the 3- 16 life- course: Fifty child case studies of 'risk' and 'resilience' from the EPPSE longitudinal study

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This presentation

- ❖ **Background to the Child and Family Case Studies (CFCS)**
- ❖ **Research questions**
- ❖ **Design and sample**
- ❖ **Mixed iterative methodology**
- ❖ **Findings**

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	14-6
Key	Key	Key	Key
Stage	Stage	Stage	Stage
1	2	3	4
862	1,128	739	700+
schools	schools	schools	schools

Sources of data

- **Child assessment (social/behaviour & cognitive) at 3, 4+, 6, 7, 10, 11 & 14 years (first 16 outcomes in 2009)**
- **Family background at 3, 6 and 11 & 14**
- **Interviews/questionnaires with staff**
- **'Quality' rating scales in pre-school**
- **Case studies of effective pre-school settings**
- **Measures of primary school academic effectiveness (value added)**
- **Pedagogical observations in primary school**
- **School and classroom climate questionnaires**
- **Children's views at age 7, 10 & 14**
- **Teachers' views on school processes and practice in Yr 5 & Yr 9**



EPPSE explores how child, family and home characteristics relate to children's cognitive and social/behavioural development.

It also focuses on the continuing impact of pre-school as well as the importance of primary and secondary school experiences.

EPPSE looks at both 'in school' and 'out of school' learning opportunities.

Theoretical background

- ❖ **Ecological model of human development** (Bronfenbrenner 1979; Bronfenbrenner & Morris, 1998): child development takes place in a nested structure of micro,- meso, exo- and macrosystems that interact with each other and the child.
- ❖ Developmental outcomes are the result of **proximal processes**, that is, progressively more complex reciprocal interactions between an active, evolving individual and human, symbolic, or material representatives of the surrounding culture (Bronfenbrenner & Ceci, 1994).
- ❖ Proximal processes function as a mechanism through which educational success is transmitted from one generation to the next and as such play a fundamental role in the persistence of social inequalities (Feinstein, Duckworth & Sabates, 2008)

Risk and resilience

- ❖ **Resilience** can be regarded as the adaptive process outcome that follows from the cumulative effects of protective factors when facing adversity/risk (cf. Rutter, 2007).
- ❖ **Protective factors:** e.g. *stimulating early home learning environment* (Melhuish et al., 2001), *parental involvement with school* (Epstein, 1992; Jeynes, 2005), *parental expectations* (Siraj-Blatchford, 2010), *pre-school quality* (Siraj-Blatchford & Sylva, 2004; Sylva et al., 2004), *teacher quality* (Sammons et al, 2008).
- ❖ **Risk factors:** e.g. *poverty, low parental educational qualifications* (Bradley & Corwyn, 2002; Feinstein et al., 2008; Hoff, 2006).
- ❖ **Resilience in CFCS:** actual attainment in English and Maths at age 11 is above prediction for children from low SES families (i.e. 'overachievement')
- ❖ **Risk/vulnerability in CFCS:** actual attainment in English and Maths at age 11 is as low as predicted for children from low SES families; actual attainment is below prediction for children from high SES families (i.e. 'underachievement').

CFCS research questions

- ❖ What factors act as **protective influences** in combating poor outcomes and what factors **increase the risk** of poor outcomes?
 - What are the **key factors within families** that shape the educational and developmental outcomes of resilient and vulnerable children?
 - What is the **role of the school and teachers** in enhancing or neglecting to promote a child's academic and social potential at different ages i.e. leading to resilience or vulnerability?
 - What **factors, external to school and family**, influence children's views of themselves as successful learners?
- ❖ What are the **views of vulnerable and resilient** children and their parents of the children's educational experiences? How do they **perceive the events and people** that have shaped them?

Mixed methods design of the CFCS

- ❖ Iterative process
- ❖ Review of multidisciplinary literature related to ecological model of development to:
 - Create semi-structured interview schedules
 - Create 'top down' qualitative analysis of the interview data
- ❖ Quantitative data from EPPSE 3-16: parent, child and teacher questionnaires, cognitive and social/behavioural assessments, used to:
 - Sample participants from EPPSE 3-11 using multilevel modelling
 - Create retro-graphs for each of the 50 participants
 - Provide questions for semi-structured interview schedules
 - Create and analyse trajectories for rankings on English and Maths
- ❖ Qualitative data used for:
 - 'Bottom up' qualitative analysis of the interview data deriving codes from the actual interviews
 - 'Thick descriptions' of individual case studies of children

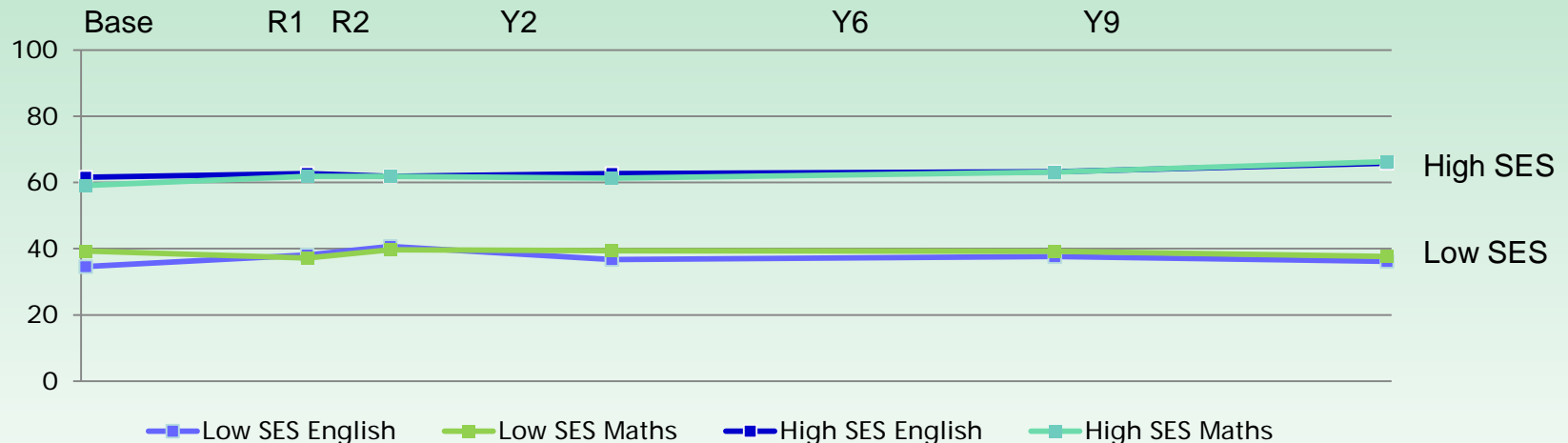
Sampling

- ❖ Using **multilevel modelling** with data from the full EPPSE 3-11 sample
- ❖ **Controlling** for child characteristics (i.e. age, gender, birth weight, developmental problems) and family characteristics (i.e. mothers' and fathers' education, social class, family income)
- ❖ Create **residual scores** for each child indicating the differences between predicted and actual attained achievement at age 11 for Maths and English
- ❖ **Randomly select** children who match the criteria for:

	Group 1 Low SES & high attainment <i>n</i>	Group 2 Low SES & predicted attainment <i>n</i>	Group 3 High SES & low attainment <i>n</i>	Group 4 High SES & predicted attainment <i>n</i>	Total <i>N</i>
Families	20	15	9	6	50
Boys	8	10	3	3	24
Girls	12	5	6	3	26

Trajectory analysis

- ❖ Aim: compare trajectories of groups and individuals and use quantitative EPPSE data to provide possible explanations for patterns
- ❖ Mean rankings by SES group based on full EPPSE sample

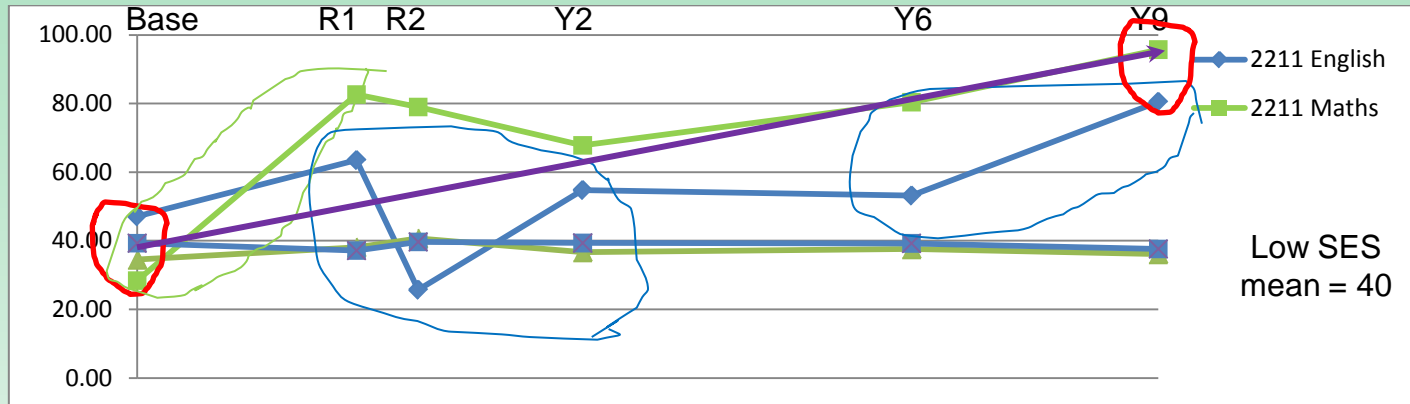


- ❖ Individual rankings for English and Maths compared to full EPPSE sample
 - **Base:** age 3 ; **R1:** entry reception age 4 ; **R2:** end of reception age 5; **Y2:** Key Stage 1 age 7; **Y6:** Key Stage 2 age 11; **Y9:** Key Stage 3 age 14
- ❖ Code and analyze: initial rankings, general direction of ranking trajectory, actual pattern of the trajectory, periods of transition

Example of trajectories

Steven, Group 1

Low SES,
attainment above
prediction



Initial ranking: 'At group mean' for both English and Maths; final ranking 'above mean' for both English and Maths ○

General direction: Progress for both English and Maths ↗

Trajectory pattern: English 'E trajectory' descending followed by ascending ↘↗
 Maths 'B trajectory' ascending ↗

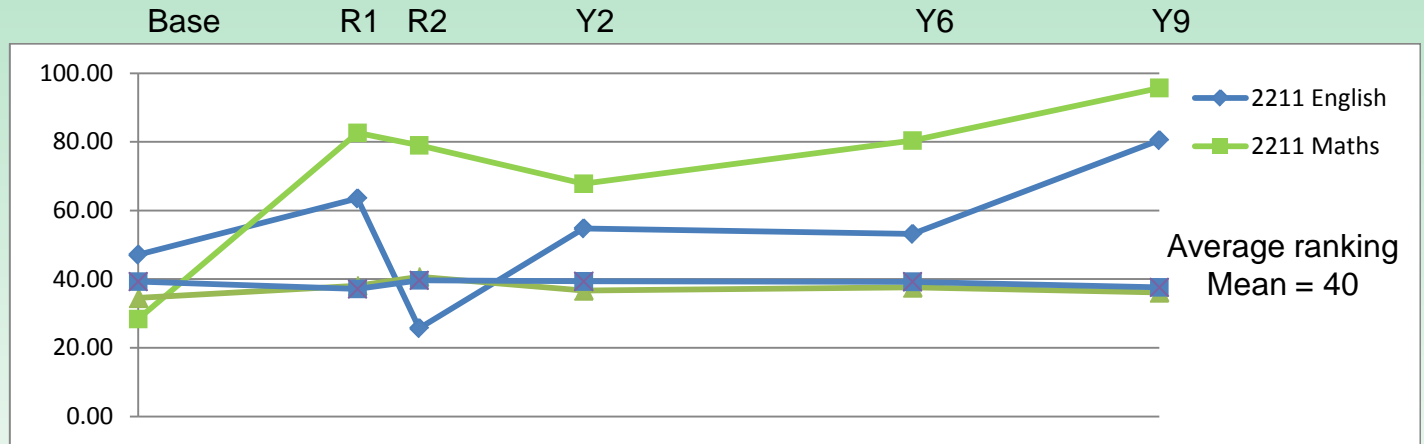
Transitional periods: English: Key Stage 1 & Key Stage 3 period ○ Maths: Early Years ○

Academic progress up to early secondary age that defies the odds of disadvantage is

evident early in children's learning life-course but often becomes more apparent over time

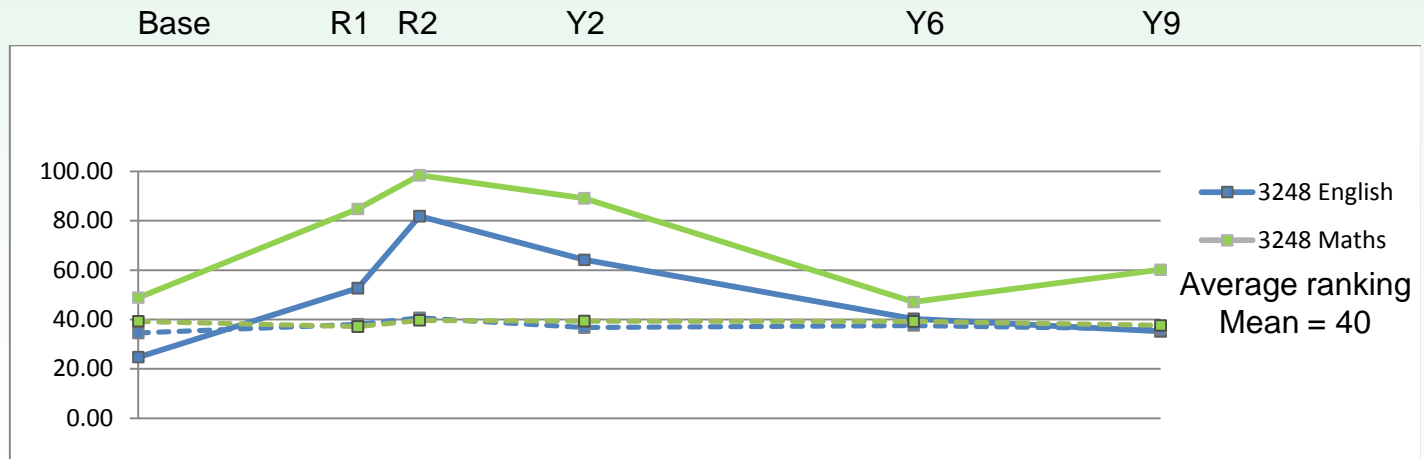
Steven, Group 1

Low SES above prediction
 Early HLE = 2
 High Quality Preschool
 Summer born



Patrick, Group 2

Low SES as predicted
 Early HLE = 2
 Medium Quality Preschool
 Summer born



Emerging themes on perceptions from bottom up analysis of qualitative data

- **Protective child characteristics:** perceived ability, motivation, and interests and hobbies
- **Protective family characteristics:** effective practical and emotional support and encouragement with school and learning
- **Protective school characteristics:** teachers' sensitive responsiveness, authoritative approach, interactive teaching style, supportive school policies
- **Protective peer and friendship characteristics:** practical peer support, emotional support, and motivating support
- **Protective characteristics from the environment external to home and school:** emotional and practical support with school and learning from significant others
- **Risk factors associated with vulnerable children:** perceived natural ability, poor work processes, lack of motivation, and externalized problem behaviour
- **Risk factors associated with the home environment:** insufficient or inappropriate support with school and learning, and low levels of emotional support and encouragement
- **Risk factors associated with the school environment:** ineffective teachers and teaching, ineffective school policies
- **Risk factors associated with the peer environment:** interferences with learning processes in class, stimulating externalized problem behaviour

Academic progress up to early secondary age that defies the odds of disadvantage is

requires effort, determination and active participation from the children themselves as well as from the people around them:

I was like one of the brightest in Maths ... I used to get third and second in the classroom when we were doing the test stuff. And English I was quite good as well, I was like in the top group so that way really was no problem for me to learn ... Cause it's, it just comes naturally to me but like other kids ... they've tried, used to find it hard at times so ... **Abdi, boy, Group 1 (low SES, attainment higher than predicted).**

The fact that she's doing so well is kind of tribute to her, her... a deep down motivation I think, which she has... **Teacher of Sharlene, girl, Group 1 (low SES, attainment higher than predicted).**

He's just got the drive in him, he's got this ... he's got natural ability as well for Maths and sciences but eh ... he's got this drive. He wants to be the best at everything that he puts his hand to. And he's not happy unless he is ... and so the more he's trying the more he's getting better. The exam results coming in and he's getting in the eighties and nineties ... he's like 'Yes!'... and that drives him on. **Mother of Steven, boy, Group 1 (low SES, attainment higher than predicted).**

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stimulated through emotionally and practically supportive relationships with parents, peers/friends and significant other adults as these experiences nurture children's self-perceptions, sense of self-efficacy and effective learning strategies, which helps them to become 'active agents' in their learning life-course:

*She was a very active child, very active and she was always keen to learn things and she was always quick to pick up on things and that. My Mum and Dad they are always praising her up and they are always saying to her, you know, "You do well at school", and you know, if they have got a problem on the computer they always ask Charley, because she can just do it just like that. So yeah they all, everybody encourages Charley really. **Mother of Charley, girl, Group 1 (low SES, attainment higher than predicted).***

*She can be strict but she is very calm and relaxed about everything and she will let you say what you think and she don't criticize you for it because it is your own opinion and it is what you believe in. She tries to give constructive criticisms but she also really praises you if you are doing really well. And she's see your reports and after the exams she will come up to you and say, "You have done really well". [It's important] because instead of that negative criticism all the time, like, "You have to do this and that", like, "You don't understand that", you can like work at it. **Natalie, girl, Group 1 (low SES, attainment higher than predicted).***

*Yeah, when...er, yeah it did because it shows that they're interested as well...and...it helped but I'm not really sure how like... Yeah, when I used to be doing good in school and they used to ask like or if you told them like, it makes your children feel, makes your kids feel proud. Proud of themselves and that in turn builds up your confidence, self-esteem. **Abdi, boy, Group 1 (low SES, attainment higher than predicted).***

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stimulated in homes where parenting is a process of 'active cultivation' that facilitates and nurtures children's cognitive and social skills allowing children to benefit from what the educational system has to offer:

'Cos we didn't have a lot of money, so we made things...Used to make all sorts (laughing). We used to walk up the city and walk to parks, and we used to do art stuff didn't we? We used to make a lot of things. Anything out of nothing (laughing). We made this big dolls house out of toilet roll and glue and cardboard. We had this big cardboard box (laughing) we put a wooden plank on the bottom, and we made it into a dolls house. And it was really big; it was just out of toilet roll. It's brilliant (laughing).

Mother of Martha, girl, Group 1 (low SES, attainment higher than predicted).

I used to read to him every night when he was little, we used to have a little bed time story, a bit of animation and a bed time prayer, every night. He had a little bunny, he had a little bunny and it was the...y'know we'd do the little 'hop little bunny, hop, hop, hop' nursery rhyme sort of things...so yeah and we...we made, we tried to make it come to life and if the story, wanted to put some action in the story... I thought perhaps reading to him, because it would help him gain an interest for books... yeah, for his education.

Mother of Jarell, boy, Group 1 (low SES, attainment higher than predicted).

[I learned] like what school was and maybe like helped me with my like work we were doing in school before like doing... Yeah, or like just so we can have a bit of a better understanding, so it's not like totally new to them. Because then like, you're going to school and if you learn so many things new at the same time, you don't, you don't get them all.

Asya, girl, Group 1 (low SES, attainment higher than predicted).

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nurtured through good or excellent quality pre-school settings, particularly for boys from families with low socio-economic status (SES) who, the EPPSE study has found, are more likely to experience a poor early years home learning environment (HLE):

*I've always been of the opinion that children cannot learn everything from home, so they have to mix with other children, especially for the first one. She was the first child and it was only me and dad and we wouldn't necessarily have the kind of vocabulary to speak with her, you know, talk like all her peers will have in school. She needed that social interaction. I went to a pre-school as well in Nigeria and we've always known of the advantage of that plus the fact it gets the children out of the house and you can go and do your own thing (laughs). It was a gentle way of getting her into school without all the hassle and we called up, as I was working part-time then, only the days that she goes to nursery, so it sort of like served two purposes. **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted)***

*They learn how to interact with other children... definitely, erm... and I think they do pick up a... it... slowly... gets them into going to proper school, rather than just shove 'em in.. .into school full-time, and then you're, "oh my god", you know, they slowly learn... because it's very few hours to start with, and then they increase it until they go to proper school, so they do... and I think they do teach them a lot, they teach them songs and... urm... well they teach them things that you wouldn't believe that they're teaching 'em. 'Cos they do it all through play to start with, in nursery. **Mother of Martha, girl, Group 1 (low SES, attainment higher than predicted)***

Findings: Pre-school quality for children in the CFCS

- **No preschool:**
 - 1 boy and 1 girl from low SES succeeding (Asian)
- **Low quality preschool**
 - 1 girl (low SES, succeeding), 5 boys (low SES as predicted); all Playgroups
 - None of the high SES children
- **Medium quality**
 - More than half of low SES children, mostly Local Authority Day Nurseries
 - Nearly all high SES children, mixed types
- **High quality**
 - 4 boys (50%) and 2 girls low SES succeeding against odds
 - 1 boy and 2 girls low SES according to prediction; others high SES
 - 9 out of 11 high quality preschools were Nursery Classes

Academic progress up to early secondary age that defies the odds of disadvantage is

stimulated by teaching strategies that allow students to bond with teachers and to enjoy lessons, resulting in students feeling encouraged to work to achieve beyond their predicted attainment:

*Yeah, Miss McDonald. I don't know, she had a personality that, and she was always willing to help me, and that, if I don't understand something, and then I told her, "I don't understand it", then she would just have a good attitude about it. I can't explain it to be honest. It would just be the way that she was willing to help. Because there is some teachers who some would prefer and they would help you in the end but it's their attitude they'll have about it, but with her, she would always give me answer straight, not the answer but help me figure things out straight away... Hmm punctuation, because she really helped me with it. Just the exercise. She'd give me separate exercises as well with it, because I was already good at the stuff that we were doing in the class, she'd give me separate exercises from other children so that, instead of spending time doing things like reading notes, I did work on the punctuation. **Shaquille, boy, Group 1 (low SES, attainment higher than predicted).***

*She can be strict but she is very calm and relaxed about everything and she will let you say what you think and she don't criticize you for it because it is your own opinion and it is what you believe in. She tries to give constructive criticisms but she also really praises you if you are doing really well. And she's see your reports and after the exams she will come up to you and say, "You have done really well". [It's important] because instead of that negative criticism all the time, like, "You have to do this and that", like, "You don't understand that", you can like work at it. **Natalie, girl, Group 1 (low SES, attainment higher than predicted).***

*I like practical classes 'cos I like to get involved in doing things. 'Cos when you ... Like sometimes when the teacher is just talking to you like it goes in one ear and out the other and you can't remember it all, but if you do it then the teacher will say oh, something and I'll think, "Oh yeah I did that" with that experiment. Erm, like at school now in Science I'm doing about radiation and like we do things with microwaves and things like that, so when you need to talk about radiation it's easier to remember the things 'cos you've done experiments with 'em. **Charley, girl, Group 1 (low SES, attainment higher than predicted).***

Academic progress up to early secondary age that defies the odds of disadvantage is

stimulated when schools help children to deal effectively with difficulties through additional classes. These classes allow children to catch up with their peers and help them (re)develop a positive perception of school and learning and of their ability to deal with difficulties:

The only subject that I ever really struggled with was Maths that is like my weak point, but going to the booster classes it really made me enthusiastic about Maths, more, so the more I did it, the more I got used to it and now it's like a routine, if I find something difficult, like in Maths, I'll look it up, and then I'll, read over it again until I understand it.

What was it about Maths that you found difficult at the time?

I don't think it's numbers, I just overall, I didn't really understand, didn't really find it easy to add up numbers and divide and things, and also, trying to keep up with the other students, it's like you didn't want to be left behind, so it was like, if I didn't understand it, like sometimes I wouldn't say, because I knew that I didn't want to be behind everyone else, so I used to...but having the booster classes, with other children who were just like you, so it made it easier for you to, erm say if you didn't understand this, didn't understand that it was like, you could just say it and it wouldn't matter.

Would they teach things differently in the booster classes?

*It's more erm, one on one like the classes were much smaller, like five or six students instead of like ten, fifteen like much smaller classes, so it made it easier for the teacher to like pinpoint which student was lagging behind, which student needed more help, then it was easier to learn, if there's less people in the class asking for help. **Anjali, girl, Group 1 (low SES, attainment higher than predicted).***

Academic progress up to early secondary age that defies the odds of disadvantage is

stimulated by peers who offer positive role models and (sometimes) friendly competition:

*No, not really, it's just like, it was, it wasn't exactly like revising, but it was more like, 'cos other people would ask me a question "How do you do something?" and I suppose that was almost me revising 'cos I was telling them what to do...so I was like...learning and with helping everyone else, helping each other so in a way even though I wasn't actually technically revising, I was like re-learning my stuff that I already knew...'cos I was helping others. **Asya, girl, Group 1 (low SES, attainment higher than predicted).***

*Like even at my school and stuff my teacher was saying you know like, "Your sister's smart and like you should get help off her and like you could be", like my Maths teacher he said how I could be better at Maths than my sister was...and so... Yeah, yeah it does like, it gives you like confidence and stuff so you wanna do better. **Rajnish, boy, Group 1 (low SES, attainment higher than predicted).***

They do help me quite a bit, I mean ... as I said Elmer is the one who likes to read a lot, he seems to be sort of naturally gifted in pretty much every subject and like A and A in everything. It sort of made me work harder and harder 'cause so, sort of reach his level and he always seems to sort rise it so... I always have to keep... [up with him]. **Steven, boy Group 1 (low SES, attainment higher than predicted).***

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supported by social networks in the wider community through the social and cultural capital these networks provide to parents and children:

*My auntie...and... my uncle, my mum's brother not my dad's. My dad's brothers are from Pakistan so my mum's brothers were a big help... 'cos they're from England and their wives are from England so...it's just like, they understand more about schools and they're more into education. So if you were stuck you would just phone them and ask and they would help you by explaining it to you. They were all like in University, getting their jobs then so it...I dunno like, it was easier but it still was there. They'd had like...just say I was doing tables...adding, they'd be like, "Well I've got two chocolates, and I've got two more chocolates, how many chocolates", like that, stuff like, how I explain it to my little brother now, I've learnt off them, so it's easier, a lot easier. **Fareeda, girl, Group 1 (low SES, high attainment).***

*Reanna liked to try everything, she did tried the dancing, and she got bored, she tried the modern dancing, she got bored, er, she went to brownies as well, she was a brownie as well, she got bored. If she sees something she wants it 'I want it, I want it now', but she doesn't think ahead. I'm always trying to get her to look at what she could gain from it, whether it's going to take commitment, because if something takes commitment... she's not very good at commitment over a long term basis. That's what amazes me [about the Sea Cadets] because the Sea Cadets involves discipline, commitment, all the things that she shy's away from normally. The Sea Cadets demands it of her and she does it, even though she comes home and moans and moans and moans at me. **Mother of Reanna, girl, Group 1 (low SES, attainment higher than predicted).***

Implications

- Implications of 'active cultivation' for parenting programmes/initiatives are substantial as our study shows that in these cases the home as an institution is a very powerful 'proximal' context. This helps children to establish masterful learning dispositions towards school and learning and stimulates the development of self-efficacy.
- Parents who show 'active cultivation' provide strong, child-centred emotional support that is sensitive to the children's developing needs. They do so, even in the face of difficulties, by being encouraging, persistent and consistent.
- As children who succeed start school with a better grasp of school relevant skills and knowledge there are implications for the early assessment of children entering school or pre-school in order that appropriate curriculum and pedagogy is personalised and adopted.

Implications (continued)

- The importance of teachers in supporting and encouraging ‘vulnerable’ children and avoiding negative expectations and stereotypes has implications for recruiting the best teachers into schools in disadvantaged communities.
- The importance of relationships with peers and friends has implications for teachers in promoting the ‘communities of learning’ in classrooms in which students can take some responsibility for their own and others learning and work towards shared goals.
- The importance of additional support classes has implications for early diagnostic assessment and individualised support and interventions in Key Stage 1.
- The importance of social and cultural capital has implications for schools and communities in fostering ‘learning to learn’ dispositions by providing support with educational experiences especially for ‘vulnerable’ children.

For further information about EPPSE visit our website at:

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

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