Performing against the odds: developmental trajectories of children in the EPPSE 3-16 study

Iram Siraj-Blatchford

Aziza Mayo

Edward Melhuish

Brenda Taggart

Pam Sammons

Kathy Sylva

Department for Education

THE EPPSE RESEARCH TEAM

Principal Investigators

Professor Kathy Sylva
Department of Educational Studies, University of Oxford
00 44 (0)1865 274 008 / email kathy.sylva@education.ox.ac.uk

Professor Edward Melhuish
Institute for the Study of Children, Families and Social Issues
Birkbeck University of London
00 44 (0)207 079 0834 / email e.melhuish@bbk.ac.uk

Professor Pam Sammons
Department of Educational Studies, University of Oxford
00 44 (0)1865 274 142 / email pamela.sammons@education.ox.ac.uk

Professor Iram Siraj-Blatchford
Institute of Education, University of London
00 44 (0)207 612 6218 / email i.siraj-blatchford@ioe.ac.uk

*Brenda Taggart
Institute of Education, University of London
00 44 (0)207 612 6219 / email b.taggart@ioe.ac.uk

Research Officers

Dr Aziza Mayo
Institute of Education, University of London
00 44 (0)207 331 5110 / email a.mayo@ioe.ac.uk

Dr Katalin Toth
Institute of Education, University of London
00 44 (0)207 911 5587 / email k.toth@ioe.ac.uk

Diana Draghici
Institute of Education, University of London
00 44 (0)207 612 6608 / email d.draghici@ioe.ac.uk

Tracking Officer

Wesley Welcomme
Institute of Education, University of London
00 44 (0)207 612 6684 / email w.welcomme@ioe.ac.uk

*Also Research Co-ordinator

AUTHORS

Iram Siraj-Blatchford

Aziza Mayo

Edward Melhuish

Brenda Taggart

Pam Sammons

Kathy Sylva

ACKNOWLEDGEMENT

Contents

Contents of Tables

Contents of Figures

Executive summary

The Effective Provision of Pre-School, Primary and Secondary Education (EPPSE 3-16) project is a large scale, longitudinal, mixed-methods research study that has followed the progress of 3000+ children since 1997 from the age of 3 to 16 years. For details of the earlier phases of the study see Sylva et al., (2010 and http://eppe.ioe.ac.uk).

A focus for EPPSE has been the extent to which pre-school, compulsory education and children's home learning experiences (HLE) can reduce inequality. Earlier EPPSE research (Melhuish et al., 2001) found that what parents did with their children was important in terms of the children's outcomes, not simply 'who they were' in terms of social class and income. Following a pilot study with disadvantaged children who were 'succeeding against the odds' towards the end of primary school (Siraj-Blatchford, 2010), this study provides in-depth exploration and explanation of how 'risk' and 'protective' factors in the lives of children shape their learning life-courses, and why they lead to academic resilience for some but not for others.

Methodology

We have defined 'resilience' as the 'adaptive outcome of a developmental process' (Rutter, 2007). Successful adaptation follows from the cumulative effects of 'protective' factors when facing adversity (i.e. 'risk'). What qualifies as 'adaptive' behaviour will vary from context to context, but in our case 'resilience' refers to 'achievement beyond expectation', i.e. shown by those in the EPPSE sample who obtained high attainment levels at age 11 despite the presence of numerous 'risk' factors early in their learning life-course. These children, as well as children with few early risk factors from high SES backgrounds who obtain high attainment levels at age 11, are regarded as the 'academically successful' children in this study. The 'vulnerable' children in this study are those children who have attainment levels that are either below prediction or as low as predicted by disadvantageous personal or family characteristics.

Cognitive assessments collected as part of the EPPSE research from age 3 onwards were used to create individual learning trajectories for the children. Trajectory patterns were described separately for children's Literacy/English and Numeracy/Maths achievement in relevant tests and national assessments up to early secondary school (age 14).

Individual-level residual scores, that indicated differences between predicted and obtained academic achievement for English and Maths up to age 11 were created for each child in the EPPSE sample (n=2900) using multilevel modelling. These scores controlled for the following background factors (as measured when the children were aged 3/4): age, gender, birth weight, early developmental problems and parent education, socio-economic status (SES), and family income. Although the trajectories were selected on children's outcomes to age 11 we further added their outcomes in English and Maths for 45 of the 50 cases as these became available during the fieldwork. So for most of the children we have their trajectory pattern of outcomes to age 14.

Four groups of interest were then created that provided a framework for the selection of 50 case studies. This resulted in a sample that included:

- two groups with low SES children
  Group 1, n=20, academically successful children who were 'succeeding against the odds'
  Group 2, n=15, vulnerable children who were 'expected low achievers'

- and two groups of high SES children
  Group 3, n=9, vulnerable children who were 'unexpected underachievers'
  Group 4, n=6, academically successful children who were 'expected high achievers'

The sample consists of 24 girls and 26 boys; 23 of the children come from families with Indian, Pakistani, Black African, Black Caribbean, White European and mixed heritage backgrounds, the remaining 27 have a White UK heritage. These children, their families and some of their teachers were interviewed. The children were aged 14-16 when they were interviewed.

A review of international literature from the fields of psychology, sociology and education, was conducted to identify general themes and focus areas for the in-depth qualitative interviews with parents, children and teachers. Additionally, trajectory analyses, survey and questionnaire data available from the main EPPSE study and findings from the pilot study were used to create 'case specific' interview questions and retrographs, these provided a visual time line with a schematic overview of the child's family, school and learning history up to the first years of secondary and were used as memory aids during these interviews.

The interviews were coded and analysed in two ways: 'bottom-up' and 'top-down'. For the 'bottom-up' analysis, coding categories followed themes that emerged from the analysis of perceptions of the participants as expressed in the interviews. A sub-sample of children with 'ideal types' of trajectories was used to generate initial coding categories; these were subsequently reassessed using the complete case studies sample. For the 'top-down analysis' coding categories were created based on evidence from the EPPSE project and the literature review. Codes continued to be redefined as we moved back and forth between the different data sources.

We used the analysis of the academic trajectories up to age 14 to determine when the children from the four groups in our sample started to show differentiation in their learning life-courses. The analyses of the qualitative interviews were used to explore why certain children succeeded academically while others did not. Through the 'bottom-up' analysis we investigated the perceptions of participants taking into account the people, events and circumstances the children, parents and teachers identified as having had a positive or negative influence on the child's academic achievement over the years. Finally, through the 'top-down' analysis based on the literature review, we analysed the occurrence of well-established 'risk' and 'protective' factors and the specific interplay and constellation of these factors in the learning life-courses of the children.

Findings

1 Low SES families fostering academic achievement
In the homes of children 'succeeding against the odds' parenting practices took the form of 'active cultivation'. These parents engaged their young children in learning processes, for instance by reading with them, providing them with educational (computer) games and materials, talking with them about school and learning or other joint activities e.g. by cooking together. They continued this involvement throughout the child's learning life-course. Despite the fact that circumstances sometimes made it difficult for parents to provide a highly favourable early years home learning environment (HLE), these parents found ways to support their children through important learning experiences. Regardless of the child's actual early years HLE (which was measured during pre-school through parent interviews and subsequently developed into an index - for further details see Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2008), parents and children who 'succeeded against the odds' valued these activities as opportunities to develop cognitive skills that prepared the

child for school; they believed these experiences had helped them to develop a positive attitude to, and interest for, school related activities. Because these parents felt they were supporting their children academically by offering or facilitating a broad range of educational experiences in addition to school, they were prepared to go to great lengths to provide these experiences and demonstrated determination and creativity in doing so.

As children got older these parents continued to provide a wide range of learning experiences as well as substantial emotional and practical support with learning. If they felt they were unable to provide these experiences to the extent they thought necessary, they found alternative ways to offer meaningful learning experiences, often by calling on their social networks and the limited cultural capital available in these networks, and by stimulating and facilitating children's participation in extra-curricular activities. Through support and guidance they fostered meaningful and strong emotional relationships with their children.

2 Characteristics of parents engaging in active cultivation
The parents of low SES children 'succeeding against the odds' set and reinforced high standards for behaviour and academic aspirations for the child. They explicitly expressed their high esteem for education. Although these parents acknowledged limits to their social, cultural and economic resources, this did not stop them from helping their children to succeed in school. They used their own experiences as positive or negative examples for the children and their resilience and perseverance in dealing with disadvantages often provided a positive role model. Despite some limitations to their cultural and economic capital these parents had a strong sense of self-efficacy regarding their ability to support their child's learning life-course. Their positive attitude towards school and learning, as well as their positive perception of the contribution they could make towards their child's academic success, was continuously present as children progressed from pre-school to primary school and on to secondary school.

3 Parenting in homes of low achievers
For children from low SES homes who did not 'succeed against the odds', the experiences in the home environment and attitude of parents were often less obviously aimed at the development of educational skills. Particularly for 'vulnerable' boys, the aspect of enjoyment seemed to be missing from many HLE experiences. Continuity of emotional and practical support for learning and education was uncommon. Often their parents expressed and displayed helplessness in their parenting. Many of them felt they were unable to provide support with school and learning or even to encourage their children to do well in school. This often left the children to sort out difficulties they encountered with school and learning. The cultural logic of child rearing experienced by children in these particular low SES families in many ways is similar to what Lareau (2003) has described as facilitating the 'accomplishment of natural growth'.

4 Early distinctions in the development of academic life-course trajectories
Despite similarities in background, the children who 'succeeded against the odds' started their academic trajectories with higher rankings for early literacy skills than their low SES peers, while 'vulnerable' high SES children started with lower early numeracy rankings than their academically successful high SES peers.

Once in pre-school, the trajectories of 'academically successful' low SES children often showed substantial improvement, suggesting they were able to gain greater benefits from the learning experiences these settings offered. The slower pace of development found for the academically less successful children, Groups 2 and 3, seemed to indicate a poor fit between the specific needs of these children for learning and the ability of schools, teachers and parents to tailor interactions and resources to these needs. Interestingly, these same children quite regularly showed substantial improvement during the early years of secondary

school. This improvement was attributed to maturation but also to the reinforcement of the curriculum and concepts addressed at the end of primary school during these initial years of secondary school. A change in attitude towards school and learning in combination with repetition of the curriculum seems to provide some of those who previously struggled with a chance to fill in certain gaps in their existing skills and knowledge, at least for English and Maths.

5 Supporting children to become active agents of academic success
We found distinctive combinations of cognitive and social/behavioural characteristics in our children that seemed to facilitate or constrain their adaptation to school and learning. Children who were seen as clever, with a positive attitude towards homework and an internal locus of control had a more positive image which was continually reinforced by people at home and in school. This helped them to establish and strengthen a positive self-image. They developed a strong sense of self-efficacy with regard to school and learning which in turn encouraged them to stretch their learning beyond what might be expected. As a result of these experiences these children became 'active agents' of their academic success.

In contrast, children who experienced learning difficulties or were not seen as particularly clever often developed a negative self-image, resulting in or reinforcing ineffective problem-solving strategies, diminished motivation for school and learning, and a sense of helplessness. This negative perception of children's ability was reinforced by the perception of parents and children that 'ability to learn' was 'a given' rather than something that could be shaped. This resulted in parents and schools making little effort to remedy the difficulties children experienced.

6 Gender specific parenting and differences related to ethnic cultural heritage
Consistent with findings for the whole EPPSE sample, far more girls than boys in our case studies had experienced a medium or high early years HLE. Although we did not find any indication of differences in parenting in the early years related to ethnic heritage in these qualitative case studies, our evidence showed that during adolescence parents with girls, and parents with African or Caribbean heritage, felt that children's 'self-regulation' abilities were also strongly related to their practices of teaching children practical life skills, and therefore they emphasised these practices as part of their child rearing strategies.

7 Foundations for academic success in the Early Years
Most parents, regardless of their SES, were motivated to send their child to pre-school because they believed that pre-schools offered children opportunities to learn to socialise with other children, a skill they believed would help the child later on in school. In addition, parents with more academically successful children believed that pre-school would provide an opportunity for their children to become accustomed to school routines and rules, and to develop basic literacy and numeracy skills, and would reinforce the child's positive attitude to school and learning. Parents of children 'succeeding against the odds', in particular, believed that pre-schools would offer their child something in addition to what they were able to offer at home and carefully evaluated the suitability of the setting for their child.

EPPSE has previously shown that pre-school education of average or better quality or effectiveness can help to alleviate the effects of social disadvantage and can provide children with a better start to school. In this small sub-sample the effect of high versus low quality pre-school settings seemed particularly important for low SES boys. First of all, these boys were more likely to have been enrolled in a low quality pre-school than boys with high SES families or girls from equally disadvantaged backgrounds. Secondly, when boys from disadvantaged families did find themselves in an excellent pre-school setting they seemed to

experience longer-term benefits as all these boys went on to 'succeed against the odds' (by age 11).

In our case studies, few children from low SES families had the combined benefit of highly favourable early years HLE and excellent pre-school education. However, the relatively frequent occurrence of medium or high early years HLE with good pre-school experiences among the children 'succeeding against the odds', underlines the significance of this combination of experiences early on in children's learning life-course.

8 Teaching that promotes academic success
Students and parents from low SES families 'succeeding against the odds' as well as those from 'successful' high SES families, attributed part of their success to the quality of their teachers. For instance, both parents and students thought that good quality teaching meant that teachers were able to explain topics and lessons clearly, were enthusiastic about the subject they taught, were approachable when things were difficult to understand, were friendly, had control over the class and clearly communicated their expectations and boundaries. Students bonded with these teachers; although they enjoyed the classes, more important was their feeling of being encouraged to work to achieve beyond their predicted attainment.

The 'vulnerable' children in particular mentioned that a high number of supply teachers and the disorganised lessons that came with this contributed significantly to their low attainment.

9 Schools' contribution to raising achievement
The one school-level factor that seemed to most clearly set apart the children who 'succeeded against the odds' from academically less successful children was their perception of the help they received from school when they were experiencing difficulties with academic work or behaviour. They felt schools had effectively helped them to deal with these difficulties through booster, remedial, homework, revision or behavioural classes. This helped children to catch up, (re)establish and reinforce a positive perception of school and learning and improved self-efficacy.

In contrast, the academically less successful 'vulnerable' children and their parents felt let down by schools and teachers. Some of these parents, particularly those from high SES families, had organised additional help for the child after school; many felt frustrated and even angry with school policies and headteachers for not dealing effectively with their children. Some of these negative perceptions were transmitted to children and might have reinforced a negative attitude to school and learning.

10 Empowering relationships with peers and friends
For the 'academically successful' children, peers, especially their friends, offered practical and emotional support with school and learning that benefited their attainment. The emotional support helped them to enjoy school and to deal with any difficulties they encountered. Practical support was often reciprocal as children helped each other out during lessons and with homework and revision. Not only did this offer children opportunities to take on the role of peer tutor, it also helped them to deepen their understanding of subjects either by rephrasing the teacher's explanations to clarify things for their friends or by receiving alternative explanations from their friends. These experiences appeared to contribute to children's positive self-perception, sense of self-efficacy, and use of effective learning strategies. These children's friends also further reinforced favourable attitudes towards school and learning through their positive perception of education. This in turn stimulated them to be 'the best they could' by providing positive role models and friendly competition.

Although some of the 'vulnerable' children also experienced positive peer influences, these students more often had friends and peers with negative attitudes to school and learning. In addition, it was often felt by them, as well as by parents and teachers, that their problematic or less effective behaviour and negative attitudes towards school and learning were reinforced by such friends.

11 Additional gateways to social and cultural capital
The low SES children who 'succeeded against the odds' and the 'successful' high SES children made good use of resources that helped with school work (such as written materials and computers) but also of peers, siblings and other adults. Their positive attitude towards books and computers and frequent use of these tools for school or as hobbies facilitated learning throughout their life-course and will stand them in good stead in the future.

Families with academically successful children perceived and valued extra-curricular activities as experiences that contributed to their children's development and school achievement. Low SES parents with children who did not 'succeed against the odds' usually regarded these activities as fun and relaxing, but did not consider any educational aspects or benefits that might follow. As a result, 'vulnerable' children were less likely to be encouraged to persevere with extra-curricular activities.

Support networks of extended family, family friends and religious communities played an important role in supporting parents as they could offer additional social and cultural capital. A positive contribution from support networks was particularly felt when this support went beyond practical help and offered parents a chance to further develop their parenting knowledge and skills and reinforced their sense of self-efficacy with regard to the child's academic success. This particular type of support was mentioned more often by the low SES families with children 'succeeding against the odds' and by high SES families in general.

Section 1: The Child and Family Case Studies

1.1   Background to the Child and Family Case Studies

The Effective Pre-School, Primary and Secondary Education (EPPSE 3-16) research project is a large scale, longitudinal, mixed-methods research study (see Sammons et al., 2005; Siraj-Blatchford et al., 2006) that is following the progress of 3000 children since 1997 from the age of 3 to 16 years old (Sylva et al., 2010). A continuing question for EPPSE was whether pre-school, schools or children's home learning experiences could help reduce inequality. While the study found that parents' socio-economic status (SES) and levels of education were significantly related to child outcomes, it also found that the child's early years Home Learning Environment (HLE) was important and showed that school influences (pre-school and primary school quality and effectiveness) also shaped children's educational outcomes. The Effective Pre-school and Primary Education (EPPE 3-11) research project (1997-2008) found that it was what parents did with their children was also important in terms of the children's outcomes, rather than simply who they were (Melhuish et al., 2001; Melhuish et al., 2008; Sammons et al., 2002a).

In 2008, an extension, funded by the Cabinet Office for the Equalities Review, provided a pilot study for the case studies presented in this report (Siraj-Blatchford et al., 2007; Siraj-Blatchford, 2010). The pilot focused on the performance of disadvantaged children from White and minority ethnic groups. It found that disadvantaged families often had high aspirations for their children and provided significant educational support in a form similar to that described by Lareau (2003) as 'concerted cultivation' (Siraj-Blatchford, 2010). In 2009, the Department of Children, Schools and Families (DCSF) funded a further extension of the mixed methodology EPPSE research to follow the students to the end of their compulsory schooling. One aspect of the study has been to analyse patterns of developmental trajectories for children 'succeeding against the odds' of disadvantage. We have conducted 50 in-depth mixed-methods Child and Family Case Studies (CFCS) to deepen our understanding of child, family and school factors and experiences; how they interact and contribute to the achievement of children in school (Siraj-Blatchford et al., 2011).

The report is structured in the following way. Section 1 introduces the study and describes our theoretical framework. Section 2 provides technical details regarding our methods, the sampling procedure, instruments, data collection procedures and preparation and analyses of the data. Section 3 describes findings on the trajectory analysis. Section 4 reports on how 'resilient' and 'vulnerable' children, their parents and their teachers perceive their paths through the educational system and what they feel has influenced these paths. In Section 5, we relate the findings on 'risk' and 'resilience' from the interview data to international literature on these topics. Finally, Section 6 brings together the findings and answers the CFCS research questions.

1.2   Aim of the Child and Family Case Studies

The aim of the Child and Family Case Studies (CFCS) is to extend our understanding of how child, family, pre-school and school factors and experiences interact and contribute to the achievement of children in school. Given the presence of particular 'risk' factors associated both with the child and the family (such as low birth weight, the occurrence of early developmental problems, limited educational experience by parents or low family income), certain children from the EPPSE sample were identified as being 'at-risk' of achieving particularly low attainment levels in English and Maths at the end of Key Stage 2 (age 11). Unfortunately, for the majority of children these predictions of low achievement proved to be correct, and as such many of the children identified as being 'at risk' actually turned out to be 'vulnerable' with respect to their attainment in English and Maths. However, as will become clear later in the report, some children who were identified as being 'at risk' due to their

background characteristics did actually manage to 'succeed against the odds'. These children's developmental trajectories display what we will refer to as 'resilience'. Quantitative analyses have already identified a range of factors that affect 'risk' and 'resilience' for the EPPSE sample, such as the early year Home Learning Environment (HLE) (see Sammons et al., 2003; Taggart et al., 2006; Hall et al., 2009; Anders et al., 2010). However, such quantitative research cannot provide the illumination and insights that rigorous case studies can, through their focus on the authentic voices of individual children, families and teachers.

Following Rutter (2007), in this report the term 'resilience' refers to outcomes of dynamic developmental processes rather than to an observable personality trait of an individual. As such 'resilience' is regarded as the adaptive process outcome that follows from the cumulative effects of 'protective' factors when facing adversity (i.e. 'risk' factors). However, we acknowledge that how 'resilience' is actually expressed (i.e. what qualifies as adaptive behaviour) might vary between cultures and contexts. As such, every child's learning life-course is determined by a unique combination of experiences and events. Some ('risk' factors) have the potential of leading to underachievement; others provide resources and contribute to 'resilience'. In this report 'resilience' refers to the so called 'overachievers' in the EPPSE sample who obtained high attainment levels at age 11 or 14 despite the presence of 'risk' factors (i.e. similar to the first group of 'resilient' phenomena identified by Masten, 1994).

Sections 4 and 5 of this report show that 'risk' and 'protective' factors interact in complex ways and their impact varies according to the individual child's perception of their experience, their social support networks and the cognitive and affective resources that they draw upon in facing these experiences (cf. Rutter, 2007). As a result, very different life-courses may lead to similar outcomes, yet life courses that appear very similar may lead to different learning outcomes for different individuals (Cicchetti & Rogosch, 1996).

1.3   The research questions

The general question addressed in this report about the Child and Family Case Studies (CFCS) is *when and why* some 'at-risk' children 'succeed against the odds' while others fall further behind? To answer this we will specifically look at the following research questions:

- What factors act as 'protective' influences in combating poor outcomes and what factors increase the 'risk' of poor outcomes?
  - What are 'positive' or 'negative' influences for certain groups of children?
- What are the key factors within families that shape the educational and developmental outcomes of 'resilient' and 'vulnerable' children?
  - How does this vary with ethnicity?
- 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 (e.g. community, computer use, extra-curricular activities pursuit of hobbies/interests, family learning or similar activities)?
- 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?

1.4   Theoretical background of the Child and Family Case Studies

1.4.1   A theoretical model for children's development

We draw significantly on Bronfenbrenner's ecological model of human development from the field of developmental psychology (1979; Bronfenbrenner & Morris, 1998) and more

specifically on the section of the model referring to microsystems, to provide a framework for the developmental trajectories of children (see Figure 1 for a visual representation). According to this model developmental outcomes are the result of progressively more complex interaction processes in which children actively engage with other people (such as parents, siblings, teachers or peers) or cultural artefacts (such as books, computers, toys, television programmes) on what is referred to as the microsystem or proximal process level of development. As such, proximal processes provide the child with culturally regulated experiences through which children's 'natural' potential becomes actualized (Bronfenbrenner & Ceci, 1994).

Microsystems include the child's family, peers, classrooms and religious settings. The interrelations among the microsystems are referred to as mesosystem. The microsystems are nested in the exosystem, which includes all the external networks, such as schools, community, health systems and mass media. These networks do not directly influence the child but exert their influence through their effect on the microsystems and the people with whom the child engages in proximal processes. In turn, the exosystem is nested in macrosystem which incorporates characteristics of the broader society in which the child develops, such as cultural values, political ideologies, economic patterns and social conditions. Together these systems are referred to as the social context of human development and as a whole they shape both what is regarded as successful socialization for a child as well as the proximal processes through which the child achieves or perhaps fails to achieve these socialization goals (cf., Tudge, Mokrova, Hatfield, & Karnik, 2009).

1.4.2 Proximal processes in microsystems

Feinstein, Duckworth and Sabates (2008) provided a comprehensive overview of how proximal processes that take place on the microsystem level 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 (cf. Lareau, 2003; Willis, 1977). In their model of intergenerational transmission of educational success each microsystem has characteristics on a distal, internal and proximal level (Feinstein et al., 2008). Feinstein et al., (2008) suggest children are affected by the education their parents have experienced, by the cognitive skills parents have developed over their life-course, and by what these experiences enable them as parents to pass on to their children in terms of proximal processes. By providing children with developmental experiences, settings such as pre-schools, schools and neighbourhoods act as further channels for the intergenerational transmission of educational success (Feinstein et al., 2008). In terms of a sociological understanding, Bourdieu (1986) states that parents can, and usually will, use all three forms of capital in their possession, notably their economic (i.e. financial resources), cultural (i.e. educational qualifications and experiences) and social (i.e. network of people they know) capital, to ensure the best possible future for their child.

Figure 1   Adapted diagram of Bronfenbrenner's ecological model of human development
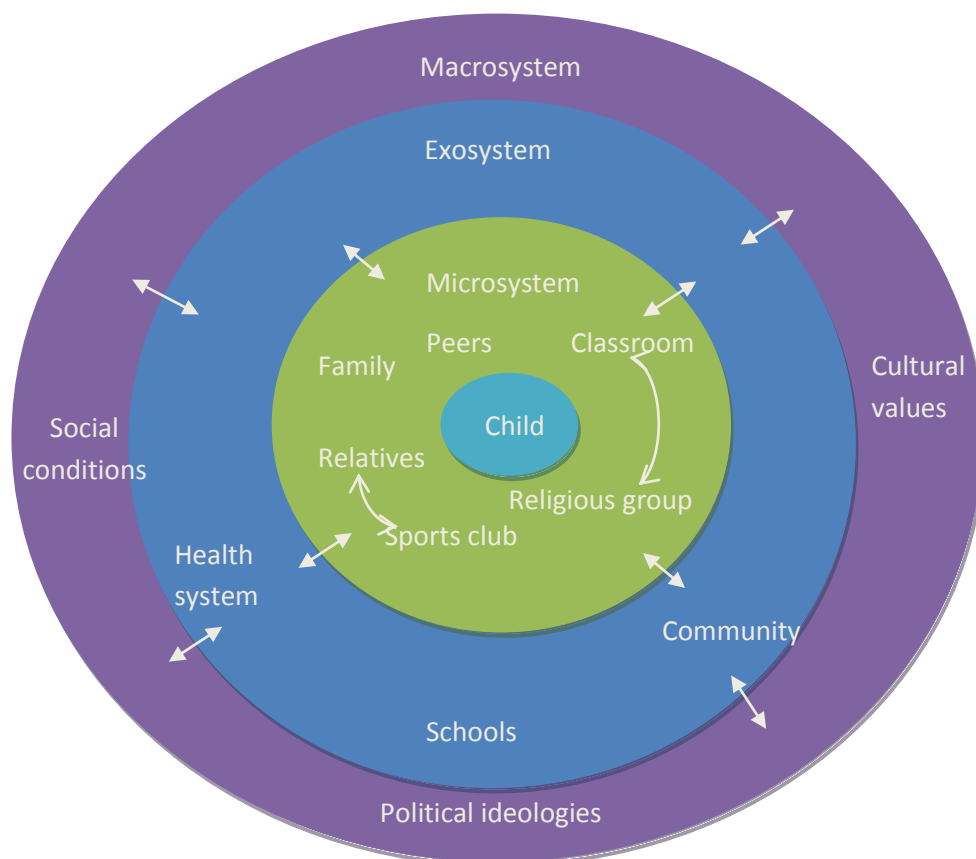
Based on Bronfenbrenner1979; Bronfenbrenner & Morris, 1998

1.4.3   How families shape children's proximal processes

Throughout children's developmental trajectories, and particularly in the early years, family life is widely recognized as one of the most important microsystems, if not the most important microsystem, for children's cognitive and social-emotional development. A substantial amount of literature shows that parental education or more global measures of socio-economic status (SES) have strong associations with children's achievement in school, with general trends for children from low SES families and from some minority ethnic populations to have poorer educational outcomes than their peers from more affluent backgrounds and from majority ethnic populations (for an overview see Hoff, 2006). However, many studies now show that the effect of distal family characteristics on child outcomes is mediated through internal features of the family context, including the availability of resources, such as books and computers, parental mental health and well-being and parental cognitions (Feinstein et al., 2008; Lareau, 2003; Raviv et al., 2004). Although more closely related to the day to day experiences of the child than the distal factors, these internal features are still distinct from the parenting practices that constitute the actual proximal processes through which children develop (Feinstein et al., 2008). These parenting practices include for instance the early years Home Learning Environment (HLE) (Melhuish et al., 2001; Sylva et al., 2004; Sylva et al., 2008) and parenting style (Feinstein et al., 2008; cf., Arnold & Doctoroff, 2003; Bradley & Corwyn, 2002; Hoff, 2003). The finding that parents can positively influence academic achievement by more frequently providing certain activities, is consistent across different socio-economic and ethnic-cultural groups (Dearing et al., 2004; Dearing et al., 2006; Fan & Chen, 2001; Jeynes, 2005).

Not only do parents provide a substantial amount of the actual proximal processes, they also influence children's proximal processes outside the family context by managing and regulating their access to other contexts (Parke 2004; cf. Bardley & Corwyn, 2002; Harkness & Super, 1992; Rogoff, Baker-Smith, Lacasa & Goldsmith, 1995; Tomasello, 1999). Lareau (2003) identified and described two patterns of socialization that appeared to surpass racial boundaries but were associated with the socio-economic characteristics of the families. Differences in educational experiences, income levels and occupation of parents resulted in differences in parenting beliefs which in turn resulted in two different socialization strategies, i.e. different parenting practices: 'concerted cultivation' for middle-class families and 'accomplishment of natural growth' for poor and working-class families (see also Rogoff, Paradise et al., 2003).

According to Lareau (2003) the context of 'accomplishment of natural growth' was less adapted to the demands of institutions such as schools than the context of 'concerted cultivation', which socializes children to benefit optimally from educational systems and prepares them well for future dealings with society's institutions. For middle-class children their childrearing experiences seemed to lead to an emergent sense of entitlement that allowed them to make the rules work in their favour, and as a result, to augment their social and cultural capital. For working-class and poor children the mismatch between their family's practices of child rearing and the practices valued and administered by institutions and professionals, resulted in an emergent sense of constraint and to the development of skills that were often less suitable when dealing with society's institutions (Lareau, 2003). In line with the work of Feinstein and colleagues (2008), Lareau proposes that the transmission of advantages from parent's to children differs between social classes as a consequence of the differences in contexts of child rearing. Although the social competences that were transmitted in each child rearing context in themselves were valuable, they also differed by social class and in the case of children from low SES or poor families were less effective for particular purposes such as educational achievement (see also Bodovski & Farkas, 2008; McNeal, 2001; Parke 2004; Sampson, 2007).

1.5 Implications for the Children and Family Case Studies (CFCS)

Our perception of development and educational success as an outcome of reciprocal interactions between a child and the people, events and objects in the proximal contexts of development has several implications for our research into the question of why particular children 'succeed against the odds' of disadvantage and others do not. Firstly, it makes it necessary to identify child characteristics that facilitate 'resilience' ('protective' factors) or 'risk' with regard to achievement. We need to understand the particular 'protective' and 'risk' behaviours and beliefs of children who manage to overcome disadvantages and those of children who do not. Secondly, we need to understand how children develop these behaviours and beliefs. This calls for identification of 'risk' and 'protective' characteristics in the child's microsystems and possibly exosystem. It also calls for investigation of the proximal processes between the child and other people in these contexts to determine how these characteristics come to facilitate 'risk' or 'resilience' in children. Finally, it calls for investigation of how these contexts interact with each other in order to understand how they influence each other's characteristics that are relevant to the child's developmental processes. As such we focus our study primarily on the child specific developmental niche (Harkness & Super, 1992) that results from the particular constellation of microsystems and the particular characteristics of the microsystems in which children engage in proximal processes that shape their developmental and learner trajectories.

Section 2: Methods

2.1   The sample

The Children and Family Case Studies (CFCS) sample consists of 50 students from the EPPSE project `who are at the end of Key Stage 3 (age 14) or who are preparing for their GCSEs (age 16). We included four different groups of students (see Table 1, below).

The two largest groups within our purposive sample consist of children from low socio-economic status (SES) families as they are of special interest for the social sciences, for reasons of social justice, and of policy interest. By the end of Key Stage 2 (age 11), twenty of these children (Group 1: 12 girls and 8 boys) achieved attainment levels in English and Maths that were well above prediction when taking into account their child and family demographic status. An additional fifteen children (Group 2: 5 girls and 10 boys) from low SES families were performing as predicted, i.e. with poor academic performance[1]. This second group of students from low SES families serves as an important reference point when interpreting the findings from the children who are 'succeeding against the odds'.

Table 1   Overview of the number of families from the EPPSE project available for sampling, recruitment and participation in the CFCS grouped by SES and attainment, drawn from three cohorts of the EPPSE study

	Group 1 Low SES & higher than predicted attainment	Group 2 Low SES & predicted attainment	Group 3 High SES & lower than predicted attainment	Group 4 High SES & predicted attainment	Total
	n	n	n	n	n
Possible EPPSE sample	64	42	123	52	281
Approached for participation	30	19	12	9	70
Positive response to CFCS	25	16	10	7	58
CFCS final sample	20	15	9	6	50

For contrast, two sets of students were included from high SES families. Nine of these students (Group 3: 6 girls, 3 boys) achieved considerably worse results than expected at the end of Key Stage 2, given their background; i.e. they were underachieving. Again, to create a point of comparison, six students (Group 4: 3 boys and 3 girls) from high SES families were included who had actually attained results in line with those predicted. For each student we interviewed at least one parent and we approached one of their secondary school teachers for participation in the study. Although we have more or less equal numbers of boys (n=24) and girls (n=26) in the full sample, we did not manage to balance gender within each of the attainment groups as intended although we did manage to include members of minority ethnic groups in each of our four groups.

---

[1] This group is actually larger than we originally aimed for (i.e. 5 boys and 5 girls). Because we anticipated a relatively high attrition from low SES families with boys, we oversampled the low SES families. However, attrition turned out to be limited for this particular group (boys performing as predicted) and this resulted in participation of 10 rather than 5 low SES families with boys who were performing as predicted at the end of Key Stage 2.

2.1.1 Sampling procedure

The students and their families came to be part of the CFCS through the following process:

Step 1: Achievement in English and Maths was assessed through the nationally standardized, teacher conducted, national assessment of achievement in English and Maths at the age of 11 (i.e., at the end of Key stage 2). Then, achievement in English and Maths at age 11 was predicted for the full sample of EPPSE 3-11 children (N=2900 using multi-level modelling (see Melhuish et al., 2006 for a full description of the procedure). The model provided residual scores for each individual child, indicating the differences between predicted and attained achievement at age 11, while controlling for certain child characteristics (i.e., age, gender, birth weight, and the presence of developmental problems) and family characteristics (i.e., mothers' education, fathers' education, socio-economic status [SES] and family income). These characteristics were controlled as longitudinal studies such as EPPE have shown that children's attainment in literacy and numeracy can be affected by them (see Melhuish, 2010). For example low SES children will, on average, have lower attainment than high SES children and as a result a high attaining low SES child might only be in the average band (or above) for the whole population. Therefore in defining level of attainment it is proposed to produce a statistical model of attainment as a function of specified child (e.g. birth weight, gender), family (e.g. mother's education, SES), and neighbourhood (e.g. level of deprivation) factors. On the basis of this model it will be possible to identify those individuals who are attaining either *higher than expected, as expected* or *lower than expected*, after allowing for the effects of the specified child, family and neighbourhood factors.

Step 2: These individual-level residuals were used to form three performance groups. The first group, the unexpected overachievers, included the children whose residuals for both English and Maths fell within the highest twenty percent of residual scores (n=333). The second group consisted of children who attained as predicted (i.e., residuals between 40% and 60%, n=189). The third group, the unexpected underachievers, contrasted the first group and included those children whose residuals fell within the bottom twenty percent of scores (n=367).

Step 3: To refine the sample for the four groups of students in the CFCS we included family SES as a further selection criterion. We took the highest job level in the home at the start of the EPPSE project, when children were between 3 and 4 years old, as our point of reference. This left us with sixty-four children from families with a lower SES (i.e. the highest job level held in the family was manual, semi-skilled, or unskilled, or the parents had never worked) who attained better than expected, one hundred and twenty-three children from high SES families (i.e., parents worked in professional jobs) who did worse than expected, and forty-two children from low SES families and fifty-two children from high SES families whose achievement at age 11 was according to prediction.

Step 4: Each group was split by gender as we aimed to include equal numbers of boys and girls. Within each gender we randomly selected students, but checked to make sure that some of the bigger minority ethnic groups were included if possible. As a result, almost half of the sample is from minority ethnic groups.

2.1.2 Recruitment procedure

We selected 70 families that were approached by telephone. Of these 70 families, 8 could not be contacted even after several attempts and 4 families declined to participate, yielding a positive response of more than eighty percent (i.e. 58 families). Families received a letter explaining the aims of the interviews and returned a signed consent form.

Of the 58 families that initially agreed to participate, five families with boys subsequently chose not to return consent forms. Appointments were then scheduled with the remaining 53 families. Two students chose not to participate during the actual data collection visit (1 boy, 1 girl) and the data from one family with a girl was lost due to malfunctioning equipment, bringing overall attrition to fourteen percent, and attrition by gender to twenty percent for boys and to a little over seven percent for girls. As a result, the final sample of the CFCS consists of 50 families. The families come from all five areas in the UK from which the EPPSE sample was initially recruited and includes children from Cohorts 1 (n=4), 2 (n=40) and 3 (n=6). As a result of drawing from these three cohorts the children were 14 (n=23), 15 (n=18) or 16 (n=9) years old at the time of the interview. At the end of the interview each student provided the name of the teacher from their school who they felt knew them best and agreed for us to contact this teacher for a short interview. The overall positive response rate for teachers was fifty-eight percent (Table 2, below, provides an overview). Table 3 (below) provides an overview of all participants using pseudonyms.

Table 2   Overview of the number of families and teachers from the EPPSE project participating in the CFCS grouped by SES and attainment, drawn from three cohorts of the EPPSE study

	Group 1 Low SES & high attainment	Group 2 Low SES & predicted attainment	Group 3 High SES & low attainment	Group 4 High SES & predicted attainment	Total
	n	n	n	n	n
CFCS family participants	20	15	9	6	50
Boys	8	10	3	3	24
Girls	12	5	6	3	26
CFCS teacher participants	11	8	6	4	29
Boys	6	4	2	2	14
Girls	5	4	4	2	15

2.2   Instruments

In preparation for the interviews, a retrograph profile was created for each child and their parent(s) by using the quantitative EPPSE data available for that particular family (for an example see Appendix 4) from age 3 onwards. These profiles were used during the interviews to facilitate thinking about experiences of each individual child and their family along the time line from pre-school to secondary school. The quantitative EPPSE data was used to create child and parent specific prompts (e.g. "What language did you use when you were reading a story to Hamid?") or follow up questions (e.g. "How did the primary school deal with the concerns you raised about Alex's reading difficulties?") and to add child and parent specific questions ("How do you think the loss of her father might have affected how Breona was doing in school towards the end of primary school?").

The in-depth CFCS aim for 'thick descriptions' of explanatory processes, which cannot be obtained by using pupil tests or parent survey questionnaires such as those available from the EPPSE quantitative data. However, the rich and extensive quantitative EPPSE data derived from assessments and questionnaires collected over 13 years did serve to create a background profile for each child, which informed the semi-structured interview schedules of the CFCS. These interviews included questions determined at three levels (see below).

Level 1: Questions common to all respondents providing data on the level of support and the role of the family, peers and community in the students learning, and any 'concerted cultivation' (Lareau, 2003). Each respondent was asked for their personal opinions regarding the cause of the student's particular learning trajectory. Questions were included to identify the level of information and understanding that families have regarding the formal and informal educational resources and provisions available, and both the parents and students understanding of the potential benefits of each. Additionally, questions were included to identify 'significant others' (including grandparents and peers) that may or may not have influenced the families understanding and engagement with education. We devised questions to collect more descriptive data relevant to the practical and process descriptions of the home learning environment (HLE), parent's formal educational experiences and the family's involvement in their children's schooling.

Level 2: Questions were developed in the initial stages using the EPPSE qualitative and quantitative data that had been collected on each individual student up to that point in time, to identify the most probable (and likely multiple) explanatory hypotheses explaining each child's *particular* learning trajectory. These questions were thus posed to investigate the probable causes and motivations in greater depth. The hypotheses that were investigated included:
  ➢ The positive or negative effects of the home learning environment (HLE) in early childhood and during the school years and the processes affecting this.
  ➢ The positive or negative effects of quality and effectiveness of their pre-school, primary and/or secondary school experiences and the processes affecting this.

Level 3: Additional individual (inductive) questions were determined in the process of the field work.

The final selection of interview questions was subject to piloting and informed by a continuous synthetic review of the relevant sociological, psychological and socio-cultural literatures associated with 'resilience' and 'vulnerability', self-efficacy, self-identity and locus of control, self-regulation and motivation, friendships and cultural capital. We also drew on the experience of the 24 child case studies selected from the EPPSE sample undertaken for the Equalities Review in 2007 (Siraj-Blatchford, 2010). Samples of the interview schedules for students and parents can be found in Appendices 1 and 2.

For the teacher interviews we again used the quantitative EPPSE data to provide child specific prompts and follow up questions as well as information from the answers given during the student and parent interviews about for instance children's learning styles and the perceived influence of friends on their school attainment (for an example see Appendix 3). Although we could only interview children's current secondary school teachers and the sample was relatively small (i.e. 29 out of 50), the data still provided a good way to triangulate the information gathered through the child and parent interviews about the secondary school years.

Table 3 Overview of the participants in the CFCS by attainment group and gender

Group	Gender	Name	Age	Ethnic heritage	Parent	Teacher
Group 1: Low SES high attainment	**Girls**	Charley	15	White UK	Mother	
		Natalie	15	White UK	Both	
		Tanya	14	Black Caribbean	Both	
		Sharlene	15	Black Caribbean	Mother	✓
		Reanna	15	Black Caribbean	Mother	✓
		Anjali	16	Indian (Sikh)	Father	✓
		Ife	14	Black African	Mother	
		Leanna	16	Black Caribbean	Mother	✓
		Brenda	14	White UK	Mother	
		Shelly	15	White UK	Mother	
		Martha	14	White UK	Mother	✓
		Asya	14	Pakistani	Mother	
	Boys	Jarell	14	Mixed heritage	Mother	
		Rajnish	14	Indian (Hindu)	Mother	
		Steven	14	White UK	Mother	✓
		Abdi	14	Black African	Both	✓
		Mark	15	White UK	Father	✓
		Shaquille	15	Black Caribbean	Mother	✓
		Peter	14	White UK	Mother	✓
		Robert	16	White UK	Mother	✓
Group 2: Low SES predicted attainment	**Girls**	Amina	16	Black African	Mother	✓
		Fareeda	16	Pakistani	Mother	
		Bunmi	14	Black African	Mother	✓
		Ebun	14	Black African	Mother	✓
		Susan	14	White UK	Mother	✓
	Boys	John	16	White UK	Mother	✓
		Cristopher	14	White European	Mother	
		Patrick	14	White UK	Mother	✓
		Ted	15	White UK	Mother	
		Harry	15	White UK	Both	
		Hamid	15	Pakistani	Mother	✓
		Jamal	15	Black Caribbean	Mother	
		Tremaine	16	Black Caribbean	Mother	✓
		Tom	15	White UK	Both	
		Richard	14	White UK	Mother	

Table 3 continued: Overview of the participants in the CFCS by attainment group and gender

Group	Gender	Name	Age	Ethnic heritage	Parent	Teacher
Group 3	**Girls**	Anna	16	White UK	Mother	
		Gimbya	15	Black African	Mother	✓
High SES		Ella	14	Mixed heritage	Mother	
low attainment		Helena	14	White UK	Both	✓
		Laurie	16	White UK	Mother	✓
		Marcy	14	White UK	Mother	
	Boys	Sean	14	White UK	Both	✓
		Subash	14	Indian (Hindu)	Father	✓
		Alex	15	White UK	Mother	
Group 4:	**Girls**	Breona	15	Black Caribbean	Mother	
High SES		Abby	15	White UK	Mother	✓
predicted		Imogene	15	White UK	Mother	✓
attainment	**Boys**	Lucas	14	White UK	Mother	✓
		Benjamin	15	White UK	Mother	✓
		Jason	14	White UK	Mother	

2.3   Data procedures

Student and parent data for the CFCS were collected over a three month period (mid January to mid April 2009). Family visits were establish via telephone and confirmed in writing. The family visits were scheduled at the families' convenience to take place in the family home. The majority of the interviews were held with the mother of the student (i.e. 42) although there were a few cases in which it was the father (3) or both parents (5). In three cases, the students translated for their mothers, from and to Somali, Panjabi or Urdu. On average the parent interviews took about one hour fifteen minutes, but the range was substantial (between forty-five minutes and two and a half hours). The interviews with the student took between thirty-five minutes and one and a half hours.

Each of the forty-nine parent interviews, fifty student interviews, and twenty-nine teacher interviews were transcribed by a research assistant following a considered and strict protocol. On average it took about one hour to transcribe six minutes of interview. The transcripts were checked and names of people and schools have been anonymised. All transcripts were imported to NVivo 8.0 for coding and analysis.
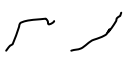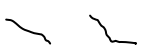
As an organizational first step, all transcript data was coded according to the time period it referred to: early family life, pre-school years, primary school years, secondary school years, future years and parental history. Secondly, all interview data was coded according to the person(s) it referred to (e.g. the child, parental figures, siblings, relatives, teachers, out of school teachers, significant other adults, peers, and a 'miscellaneous' category).

We then conducted three types of analyses which involved further coding of the data. On several occasions, data was coded independently by two researchers. Inter-coder reliability was established by visual comparison and found to be good. Any differences in coding were resolved through discussion and applied in subsequent coding.

First, we described and analysed developmental trajectory patterns using the standardized assessments for Literacy/English and Numeracy/Maths available from age 3 to age 14 for each individual child in the CFCS.

At each point of measurement children's available measures for Literacy/English and Numeracy/Maths were ranked according to their relative position in comparison to the full EPPE/EPPSE sample at that point of measurement (i.e. providing rankings between 0 and 100). These rankings were based on actual achievement at a given time point and differed from the residual measures which were based on the difference between actual and predicted attainment. For each individual's trajectories we:

Step 1: Coded the *pattern* of development which summarized the trajectory of the children's attainment rankings over time:

A   <u>Constancy</u>: a generally stable developmental trajectory around a particular mean of the child's ranking position. Fluctuation between rankings does not exceed 20 points.

B   <u>Ascending</u>: the developmental trajectory shows a substantial increase of the child's ranking position, possibly in combination with a period of constancy.

C   <u>Descending</u>: the developmental trajectory shows a substantial decrease of the child's ranking position, possibly in combination with a period of constancy.

D   <u>Ascending followed by descending:</u> the developmental trajectory shows a substantial increase of the child's ranking position followed by a substantial decrease.

E   <u>Descending followed by ascending</u>: the developmental trajectory shows a substantial decrease of the child's ranking position followed by a substantial increase.

F   <u>Changeability</u>: the developmental trajectory shows substantial fluctuation in the child's ranking position.

Step 2: Coded whether the *initial ranking* was below, at or above SES sample average (i.e. about 40 for the low SES children from Groups 1 and 2 and about 60 for the high SES children from Groups 3 and 4).

Step 3: Coded the *general direction* of children's developmental trajectory pattern by comparing the children's initial ranking position with their final ranking position for English and Maths:
I   <u>Progress</u>: indicating that the child's ranking position improved.
II   <u>Stability</u>: indicating that the child's ranking position stayed constant.
III   <u>Regression</u>: indicating that the child's ranking position had decreased.

Step 4: Coding if the trajectories patterns were similar or different for English and Maths.

Step 5: Coded distinctive periods of transition:
i   Early Years: Baseline to end of Reception (age 3+ to 5 years).
ii   Key Stage 1: End of Reception to Year 2 (age 5 to 7 years).
iii   Key Stage 2: Year 2 to Year 6 (age 7 to 11 years).
iiii   Key Stage 3: end of Year 6 to Year 9 (age 11 to 14 years).

Step 6: We generated *possible explanations for patterns* using the quantitative EPPSE data about the early HLE, pre-school and primary school effectiveness and family and child demographics (such as age, term of birth, gender, cultural heritage, parents' qualification, parents' employment and family social class).

Second, we applied a 'bottom up' approach to code and analyse the perceptions of students, parents and the teachers about why and when children succeeded or failed to succeed. To this purpose we started with a small set of exemplar cases from within each of the four groups to generate categories of perceived explanations for school success and failure from the data. We then extended these codes to the full sample. These exemplar cases were selected according to the patterns of their individual developmental trajectories.

Finally, using a 'top down' approach we coded and analysed all interview data according to 'protective' and 'risk' factors, which we identified through a synthetic review of the relevant sociological, psychological and socio-cultural literatures associated with 'resilience' and 'vulnerability'.

2.4   Ethical considerations

The CFCS followed the ethical guidelines set in BERA Ethical Guidelines for Educational Research and BERA Quality Conditions for Quality Research. The initial EPPSE project proposal, including the option for case studies was approved by the Ethics Committee of the Institute of Education. The CFCS participants were informed about the aim of the study and the procedures applied to ensure privacy protection. They provided written consent but were aware that they could withdraw their participation at any time and were free not to answer questions if they felt they did not want to. The researcher working on the project received training on the BERA guidelines for ethical research and her compliance with these guidelines. The CFCS instruments and correspondence were approved by the then DCSF and received the Department's Star Chamber approval.

Section 3: Children's developmental trajectories for English and Maths

As described in Section 2, we sampled four groups of children whose actual attainment in English and Maths at age 11 was either below, as, or above prediction when controlling for demographic differences. For this sample we knew how the attainment of each child compared to that of their peers with similar demographic backgrounds but not for instance how the attainment of a child that was among the highest attaining twenty percent of disadvantaged children compared to peers from more favourable backgrounds. So while the children who we identified as 'succeeding against the odds' might have had Key Stage 2 test results that were comparable to those of their high achieving high socio-economic status (SES) peers, their result could also have been similar to the average attainment of the children with more favourable demographic characteristics or even below this attainment level. Therefore, we created developmental trajectories to get an understanding of how the children from the four groups compared to each other.

The developmental trajectories included assessments at age 3, when children started their participation in the EPPE project (Baseline), as well as assessments at the beginning of Reception (R1, age 4 to 5), at the end of Reception (R2, age 5) and at the end of Key Stage 1 (KS1, age 7), Key Stage 2 (KS2, age 11) and Key Stage 3 (KS3, age 14) for both Literacy/English and Numeracy/Maths. Different age appropriate instruments were used for assessment at different ages. For instance, a composite measure of children's verbal scores from the British Ability Scales Second Edition (BAS II; Elliot, Smith & McCulloch,1996) was used at age three (Sammons et al., 2002a) and a nationally standardized, teacher conducted, national assessment of achievement in English was used during the primary years. We applied fractional percentage rankings to indicate the relative position of each child's assessments at each of the 6 measurement times. As a result children received a ranking between 0 and 100 for each assessment. A child with a ranking of 81 for English at Key Stage 2 for instance achieved a test score that was better than the achieved test scores of eighty percent of the children in the full EPPSE sample. Additionally, we determined the mean rankings for all children from socio-economically disadvantaged families (i.e. low SES, which included our children from Group 1 and 2) and from socio-economically privileged backgrounds (i.e. high SES, which included our children from Groups 3 and 4) to provide points of reference for children's rankings.

Figure 2 Average rankings for Literacy/English and Numeracy/Maths for the low and high SES samples from the full EPPSE sample
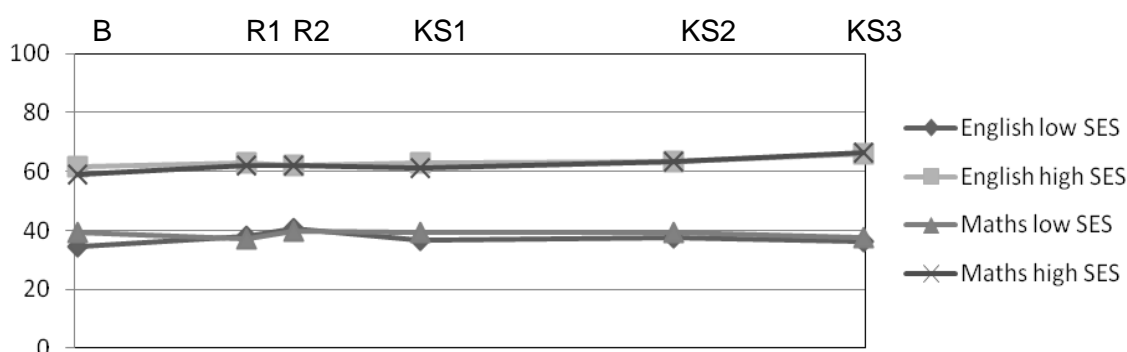
Figure 2 provides an overview of the average rankings for the low and high SES samples in EPPSE. This shows that within the full EPPSE sample average scores for both the low and high SES sample are fairly similar overtime for both domains and fairly stable overtime: around rank 40 for the low SES sample and slightly above 60 for the high SES sample.

Figure 2 (above) also shows that the difference between children from low and high SES backgrounds is generally considerable: about twenty ranking points higher for children from more privileged backgrounds.

Given the size of the CFCS sample and the four analytical groups within the sample we provide below a description of the trajectory data. Any statements about differences between the four groups are based on visual observations and are not to be interpreted as statistical differences (for statistical analyses of the trajectories of the full EPPSE sample please refer to the sister report by Melhuish et al., 2011 forthcoming). Figures 3 and 4 provide a visual overview of the average trajectories for each of the four groups. Although these graphs give us an idea of how attainment levels in the four different groups relate to each other it should be noted that differences within each of the four groups are substantial (i.e. standard deviations range between 10 and 30) and therefore individual trajectories will differ substantially from these group trajectories. Visual presentations of the individual trajectories are provided in Appendix 5.

3.1 Literacy/English trajectories

Visual inspection of these group trajectories makes it clear that differences between the low SES children who 'succeeded against the odds' (Group 1: Low SES, higher attainment) and their low SES peers who attained as predicted (Group 2: Low SES, predicted attainment) were visible from the onset for literacy/English. Over time, the gap between their attainments increased substantially: while rankings of the children from Group 2 reflected the low SES sample average of 40, their successful peers (Group 1) started above this average and by entry into Reception were performing at the high SES sample's average of 60 only to continue their climb in rankings once in primary education. Their levels (Group 1) were at a par or above those of their high SES peers who were doing well, as was predicted (i.e. Group 4).

Figure 3   Average trajectories for Literacy/English for each of the four groups in the CFCS
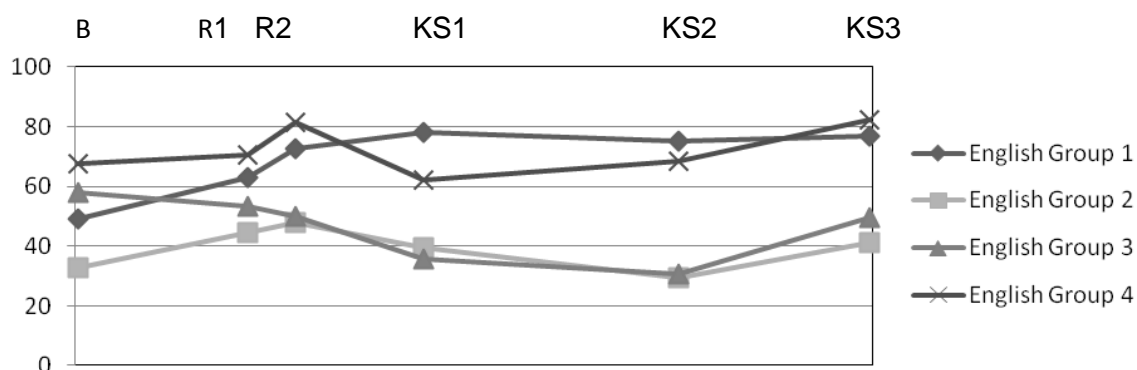
Differences in Literacy/English between the two high SES groups were small at the start of their trajectories, with both groups closely reflecting the high SES sample average of 60. However, the groups diverged more and more as children started their schooling. By the time of Key Stage 2 exams, the average rankings of the high SES children who were doing poorer than predicted (Group 3) were similar to those of the low SES children who were doing (poorly) as predicted (Group 2).

3.2   Numeracy/Maths trajectories

Although there were no differences in onset between the numeracy skills of the two groups of low socio-economic status (SES) children in the CFCS sample (Group 1: Low SES, higher attainment; Group 2: Low SES, predicted attainment), and they seemed to rank well above the low SES sample average of around 40, the two groups started to diverge more and more from reception onwards. On average the children 'succeeding against the odds' (Group 1: Low SES, higher attainment) again ranked among the highest achieving children in the EPPSE sample, indeed even slightly above their high SES peers who were doing well as predicted (Group 4).

For the two groups of high SES children (Group 3: High SES, low attainment; Group 4: High SES, predicted attainment) differences were more prominent right from the onset. The unexpected underachievers from Group 3 showed initial Numeracy skills that ranked substantially below the high SES sample average of 60 and instead was similar to the average of the low SES sample. Although they seemed to have caught up with their high SES peers (Group 4) by the end of Reception, their rankings again decreased substantially once in primary school and were at a similar low level to the rankings of the low SES children who achieved as predicted (Group 2).

Figure 4   Average trajectories for Numeracy/Maths for each of the four groups in the CFCS
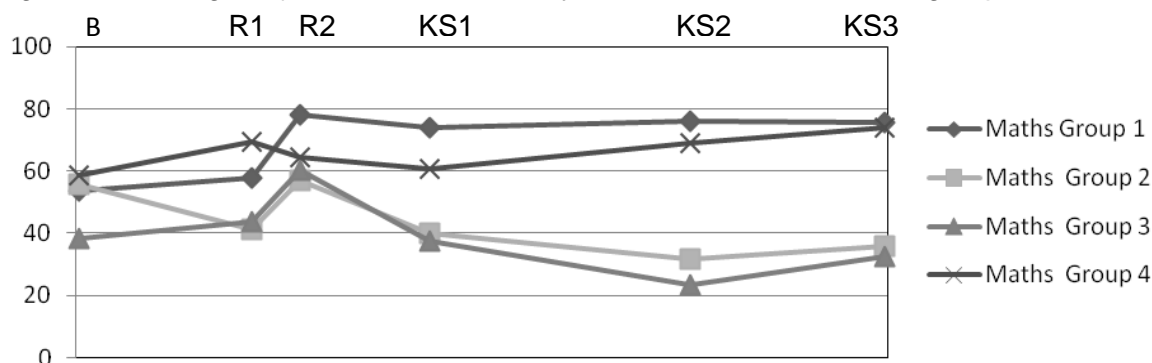
3.3   Individual trajectories

Sixteen of the twenty children from low socio-economic status (SES) families who did better than predicted in their Key Stage 2 National Assessments for English and Maths (Group 1) were still ranked at a level that was comparable to or above the mean of the high SES EPPSE sample in their Key Stage 3 National Assessments (age 14). For the majority of the children (11 girls and 6 boys) the general direction of their developmental patterns showed progression over time, both for English and Maths (n=8) or for either English or Maths, while their performance on the other subject was stable (n=9). For the majority of these children the pre-school and early primary years were important periods of positive transition; i.e. their rankings increased. For nearly half the boys, the early secondary years brought about additional changes in ranking, either for the better or for the worse.

For Group 2 the general direction of change, particularly for boys, was negative for either English or Maths, or both of the subjects. Similar to their low SES peers who 'succeeded against the odds' (Group 1: Low SES, higher attainment) these children experienced substantial changes in ranking position during the pre-school and early primary years. However, these changes were both positive and negative. Furthermore, the primary years between Key Stage 1 (KS1) and KS2 often showed a further decline in ranking. For six children the secondary years brought a substantial improvement of their rankings for both English and Maths (2 girls) or for one of these two subjects (4 boys).

16

Table 4   Trajectory descriptions by attainment group and gender

	Name	Start	English Direction	Pattern		Start	Maths Direction	Pattern	
Group 1 Girls	Charley	Above	Progress	B		Above	Progress	B	
	Natalie	Above	Regression	E		Above	Regression	E	
Low SES	Tanya	Below	Progress	B		Below	Progress	B	
High attainment	Sharlene	Below	Progress	B		Above	Progress	B	
	Reanna	Above	Progress	D		Above	Progress	D	
	Anjali	Above	Stable	A		Above	Regression	E	
	Ife	Above	Stable	A		Above	Progress	B	
	Leanna	Above	Stable	A		Above	Progress	E	
	Brenda	Mean	Progress	B		Mean	Progress	B	
	Shelly	Above	Regression	E		Mean	Progress	F	
	Martha	Below	Progress	B		Above	Stable	A	
	Asya	Above	Stable	A		Above	Progress	B	
Boys	Jarell	Above	Regression	C		Above	Progress	D	
	Rajnish	Mean	Stable	D		Below	Progress	B	
	Steven	Mean	Progress	E		Mean	Progress	B	
	Abdi	Above	Progress	E		Above	Progress	E	
	Mark	Mean	Progress	D		Above	Stable	A	
	Shaquille	Above	Progress	F		Above	Stable	A	
	Peter	Above	Progress	E		Above	Progress	B	
	Robert	Above	Stable	D		Mean	Progress	D	
Group 2 Girls	Amina	Below	Progress	F		Above	Stable	E	
Low SES	Fareeda	Below	Progress	B		Below	Progress	B	
Predicted	Bunmi[1]	Below	Progress	D		Below	Regression	F	
attainment	Ebun[1]	Below	Progress	D		Above	Regression	C	
	Susan	Above	Regression	E		Mean	Stable	A	
Boys	John	Above	Stable	F		Mean	Regression	F	
	Cristopher	Mean	Stable	E		Below	Stable	A	
	Patrick	Below	Progress	D		Above	Progress	D	
	Ted	Above	Regression	C		Above	Regression	F	
	Harry	Mean	Stable	A		Above	Regression	F	
	Hamid	Above	Regression	C		Below	Progress	D	
	Jamal	Above	Progress	F		Above	Regression	F	
	Tremaine	Below	Stable	E		Above	Regression	C	
	Tom	Above	Regression	F		Mean	Regression	D	
	Richard	Below	Progress	D		Below	Progress	F	
Group 3 Girls	Anna	Above	Stable	E		Mean	Progress	F	
High SES	Gimbya	Below	Progress	D		Below	Stable	D	
Low attainment	Ella	Below	Regression	E		Below	Regression	D	
	Helena	Mean	Progress	B		Below	Progress	D	
	Laurie	Above	Regression	E		Above	Regression	C	
	Marcy	Below	Stable	F		Below	Progress	D	
Boys	Sean	Mean	Regression	C		Below	Progress	D	
	Subash	Below	Regression	E		Mean	Regression	C	
	Alex	Above	Regression	E		Below	Progress	E	
Group 4 Girls	Breona	Below	Progress	F		Below	Progress	D	
High SES	Abby	Above	Regression	C		Above	Regression	C	
Predicted	Imogene	Above	Stable	A		Above	Stable	A	
attainment Boys	Lucas	Mean	Progress	E		Below	Progress	F	
	Benjamin	Mean	Progress	B		Below	Progress	B	
	Jason	Mean	Progress	E		Above	Regression	C	

Most of the high SES children with attainment below prediction (Group 3) showed combinations of progression and regression. For these children, the pre-school years brought substantial transitions (positive for two-thirds, negative for one-third). Their rankings usually regressed further during the primary years (age 5-11 years old). However, four of the nine children in this group managed to climb back up in the rankings to an above average level by Key Stage 3 (age 14) for either English or Maths or both subjects.

The children from high socio-economic status (SES) families with predicted attainment (Group 4) at the end of primary school (age 11) typically had comparable high rankings at Key Stage 3 (age 14) for both subjects. The trajectories of these children described different patterns but transitions were generally less marked than with the other three groups and development of rankings was generally progressive or stable.

Section 4: Views on academic success

4.1   Perceptions of reasons for academic achievement

In the following section we look at the explanations our participants give for children's academic success or lack of success. In each of the following paragraphs we will first look at perceptions about 'protective' factors given for and by children from Groups 1 (Low SES, higher attainment) and Group 4 (High SES, predicted attainment).

We looked at participants' perceptions of *reasons for academic success* and at 'protective' *factors* associated with this success in the interviews with and about the low socio-economic status (SES) children 'succeeding against the odds' (i.e. Group 1: Low SES, higher attainment)[2] and the high SES children doing as well as had been predicted (i.e. Group 4: High SES, predicted attainment)[3]. The small sample of high SES children was added to provide a frame of reference for the findings about unexpected academic success of low SES children. By no means do we intend to imply that childrearing in middle class families is always more successful than in working class families, nor that childrearing in working class families is in any way in 'deficit' compared to that of their wealthier peers. However, middle class families are often advantaged by their economic and educational status and are typically particularly successful at fostering children's attainment in school through a set of the childrearing practices that can be described as 'concerted cultivation'. Comparing the experiences of successful working class children to those of the successful children from middle class families might help increase our understanding of what sets these children and their experiences apart from their less academically successful peers.

Reasons for lack of academic success and the associated 'risk' *factors* are derived from the interviews with students, parents and teachers from Group 2 (Low SES, predicted attainment)[4] and Group 3 (High SES, low attainment)[5]. These children are considered 'vulnerable' either because of their socio-economic disadvantages which they have not managed to overcome (i.e. Group 2) or because they failed to thrive in school, despite the socio-economic advantages of their family background (Group 3).

---

[2] Group 1 consisted of eight boys and twelve girls who at age 11 (Key Stage 2) had succeeded considerably beyond their predicted attainment. Interview data for one girl from Group 2 (i.e. low SES performing according to prediction) was added in this section, bringing the sample to twenty-one, as both her English and Maths Key Stage 3 (age 14) scores showed consistent progress over time and her performance ranked in the top 20% of the full EPPSE sample at age 14. As a result, the findings regarding patterns that were identified within this group are based on interviews with forty-six different sources (21 students, 19 parents and 6 teachers).

[3] The references to the experiences and explanations of successful middle class children in Group 4 (High SES, predicted attainment; 3 boys and 3 girls) came from sixteen interviews (6 students, 6 parents and 4 teachers).

[4] Group 2 consisted of four girls (including one set of twins) and ten boys from socio-economically disadvantaged families. At the end of Key Stage 2 (age 11) all fourteen children had low attainment, as had been predicted (i.e. residuals between 40% and 60%). Their rankings on the Key Stage 2 (age 11) results for English and Maths were similar to or below the mean of disadvantaged SES families in the EPPSE sample (average ranking 40). The patterns regarding 'risk' *factors* identified within this group are derived from interviews with thirty-two different sources (12 students, 13 parents and 7 teachers).

[5] Students from Group 3 (3 boys and 6 girls) came from privileged SES families but had fallen behind by the time they took their Key Stage 2 National Assessments at age 11 (i.e. their performance residuals fell within the 20% bottom scores). Their ranking in the full EPPSE sample was in the bottom half, i.e. well below the high SES group's average of 60. The references to the experiences and explanations came from interviews with twenty-one different sources (8 students, 8 parents and 5 teachers).

4.2   Perceived mechanisms for academic achievement

We identified two mechanisms that explained *why* children did well or did not do well in school according to the participants from all four groups. These two mechanisms were the way they behaved and adjusted themselves to school and learning and the way they were facilitated in their learning.

While children doing particularly well in school were seen as having *successfully adapted* to the demands of school and as having been *consistently facilitated* in their learning by other people and events in their lives, the problems experienced by less academically successful children were attributed to the fact that they *were unable to adjust* to school and that their *learning was impeded* rather than facilitated by factors related to the child, their family and school environments and their peers.

Participants identified factors related to children, the home, the school, the peer and the wider community environment that according to their perception had influenced children's academic success. In many cases these factors were similar for academically successful and less successful children, but while they functioned as a 'protective' factor for the successful children, they worked as 'risk' factors in the case of the 'vulnerable' children. For the children 'succeeding against the odds' (Group 1: Low SES, higher attainment) and the high SES children with predicted attainment (Group 4: High SES, predicted attainment), participants identified the following 'protective' factors related to the:

- children, i.e. their perceived ability for learning, their strong motivation for school and learning, and their hobbies and interests;
- home context, i.e. effective practical and emotional support with school and learning;
- school environment, i.e. teachers who are sensitive and responsive to students' needs, who use an authoritative approach to teaching and interactive teaching strategies; supportive school policies;
- peer environment, i.e. peers offered practical, emotional and motivational support and
- significant others, i.e. practical and emotional support provided by extended family members and people from the family's wider social, cultural and religious communities.

For the academically less successful children from Group 2 (Low SES, predicted attainment) and Group 3 (High SES, low attainment) identified 'risk' factors were related to the:

- children, i.e. limitations in their perceived natural ability, their lack of motivation for school and learning, their use of ineffective work processes and more occurrences of externalizing problem behaviour;
- home context, i.e. lack of emotional and practical support with school and learning;
- school environment, i.e. ineffective teachers and teaching and ineffective school policies;
- peer environment, i.e. peers interfering with learning processes in class and stimulating externalised problem behaviour.

In the following paragraphs we will discuss these perceived 'protective' and 'risk' factors in more detail. We will start by discussing child characteristics, followed by characteristics of the home environment, the school environment, characteristics of their peer culture and of their factors external to home and school which include significant other adults and out of school learning opportunities. The order of paragraphs in which these 'protective' influences are discussed is not intended as an indication of their importance.

4.3 'Protective' and 'Risk' factors related to the child

Children's perceived *ability* to learn was mentioned for nearly all boys and over half the girls[6]. According to the parents, teachers and the children themselves, the successful children were particularly bright and learning just seemed to come easy for 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).**

In contrast, for the academically less successful children mention was made of difficulties related to their *perceived natural ability* to learn. Mostly, these children were seen as having difficulties with specific subjects, primarily English or Maths. Although references were made to dyslexia or dyslexia- like difficulties for six children, formal diagnosis had only been established in the case of three children. In some cases children's overall ability was perceived as limited.

> *Actually he was slow in everything. Yes, slower than others, walking wasn't, but the learning still is. You know, learning wise, I must say, he was slow.* **Mother of Hamid, boy, Group 2 (low SES, attainment as predicted).**

A second child related factor that was perceived to influence academic success was their apparent *motivation* or, in the case of the academically less successful children, their *lack of motivation* to learn[7]. Children 'succeeding against the odds' were described as 'inquisitive', 'curious' and 'interested', as 'liking to do well', 'wanting to achieve', 'wanting to learn' and as having a 'strong drive' and 'will power' to achieve. The references portrayed these children as having dispositions which made them dedicated, hard working and active problem solvers. From an early age onwards these children were regarded as good workers, who paid attention in class and focused on their school work and this perception was reinforced by parents and their schools.

> *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).**

As with the successful low SES children, the successful high SES children were motivated to learn. However, while the high SES girls showed this strong positive orientation to school and learning from an early age onwards the high SES boys generally needed a bit more time than for this motivation to become apparent.

For less successful children their lack of motivation for particular subjects or for learning in general was commonly perceived to have had a negative effect on their attainment in school. These children were typically described as 'just not interested', 'never liked stuff like that', 'not keen', 'couldn't be bothered' and 'couldn't see the point'.

---

[6] Ability was mentioned as a 'protective' factor for seven boys and six girls from Group 1, and for all three boys and two girls from Group 4; ability was mentioned as a 'risk' factor for all ten boys and three girls from Group 2, and for all three boys and 4four girls from Group 3.
[7] Strong motivation was mentioned for four boys and nine girls from Group 1 and for all six children from Group 4; lack of motivation was mentioned for eight boys and one girl from Group 2 and for all three boys and for four girls from Group 3.

> *Erm, he didn't have a problem [in primary school]… I was happy…but I would have been a bit happier if it was ... I suppose you always want more for your child and as much as they feel they can do, but I think you always feel you could do a little bit better. I think that was probably down to Tremaine really, lack of interest and…I think just mainly that...* **Mother of Tremaine, boy, Group 2 (low SES, attainment as predicted).**

A third 'risk' factor that was commonly mentioned for the academically less successful children from Group 2 (Low SES, predicted attainment) and Group 3 (High SES, low attainment) referred to their use of *ineffective work processes*[8]. Most commonly mentioned were their use of ineffective learning strategies, such as not reading carefully, not checking work over for possible mistakes and not revising.

> *His way of learning, he's good verbally, so he can listen and take in information and then he can ask questions verbally. I think it really is difficult for him on the literacy level, I think it's come back to that again. So if you ask him to you know, fill in a worksheet where the questions on there of what they've actually been learning, he will struggle with that sometimes, and I think it is because he hasn't read the question properly, so the answers he gives rarely relate to what the questions about.* **Teacher of Subash, boy, Group 3 (high SES, attainment below prediction).**

The second ineffective work process mentioned for these children was their reluctance to make use of help when offered. The reasons most commonly given for this reluctance was they 'just won't do it' and 'just don't want to', but some are 'shy' and 'afraid' to ask for help.

> *I ran through sessions we would be doing past papers, and I was very surprised that neither of them, erm, Ebun came to one, I have to admit, but Bunmi didn't. They just said 'Oh well ', they didn't really have a reason, they just didn't want to.* **Teacher of Ebun and Bunmi, twin sisters, Group 2 (low SES, attainment as predicted).**

Additionally, they would 'lose focus', 'get distracted', 'go off-track' or 'get bored'. As a result they struggled more and more which commonly resulted in them simply giving up.

A third child related explanation for academic success referred to particular activities or hobbies these children were interested in and which were perceived to facilitate learning and in some cases to stimulate children to apply themselves to school and learning[9]. The hobbies and interests that were mentioned ranged from fashion to religion, but most frequently mentioned were reading and computers. Engaging in these activities increased children's 'enthusiasm', 'motivation' and 'interest' for particular topics, but also helped their memory and helped them concentrate during class. Steven described how he started getting interested in books more and more over time, when asked if he thinks reading might have helped him with his learning he answers:

> *Yeah, I think it does, 'cause it also helps me concentrate ... I mean so, in class I could concentrate for fifty minutes, no, no problem ... like listen to the teacher and where as ... everyone else seems to, you know, have to talk or ... so.* **Steven, boy, Group 1 (low SES, attainment higher than predicted).**

---

[8] Use of ineffective work processes was mentioned for nine boys and all four girls from Group 2 and for all three boys and for four girls from Group 3.
[9] Interests and hobbies were mentioned for eight girls and four boys from Group 1 and for all six children from Group 4.

Reading, writing and computers in particular are perceived to have facilitated children's learning to the extent that it helped them perform better in school subjects such as ICT and English. Their language skills (vocabulary, grammar, syntax) in particular appear to have benefitted from these activities.

The child related 'risk' factor that was least often mentioned to contribute to children's less successful academic attainment was *externalizing problem behaviour*. This behaviour usually developed as children approached puberty and mostly referred to children acting 'rude', 'lippy' and 'cheeky' in their communication and to negative attention-seeking behaviour ('nag and nag'). Occasionally, problems became more serious and children became aggressive or would 'freak out' and get into fights.

> *It's his nature I would of said, his nature is that he ... he's sort of that type of child, he is a child who wants to talk, would like to misbehave as much as he could, he's not a diligent sort of child, that will just put his head down and work, he's itching to do anything he can.* **Teacher of Sean, boy, Group 3 (high SES, attainment below prediction).**

4.4 'Protective' and 'Risk' factors related to the home environment

Practical and emotional support from people and through activities within the home were identified as important 'protective' factors for academic success while *lack of such support* was seen as having contributed to less successful academic attainment. *Practical and emotional support* was perceived to have facilitated learning and to have stimulated students to apply themselves to school and learning. For the children 'succeeding against the odds' and for successful high socio-economic status (SES) children such support was attributed to their parents and in some cases to siblings[10]. For over two-thirds of the children who were not 'succeeding against the odds', or were doing less well than predicted, lack of or ineffective *practical and emotional support* were seen as having played an important role in their attainment[11].

Two sorts of effective practical support were most commonly mentioned: additional learning activities and help with homework[12]. When the academically successful children were young they watched educational programmes on television, such as Sesame Street and Art Attack, they played games with their parents, were read to, and went on holidays and outings.

Charley described how she and her cousins would go to a market with their mother over the weekend when she was seven years old:

> *Every Sunday my mum would give me ten pound and me auntie would give my two cousins ten pound each and they'd take us to the market so we could buy things what we wanted. Yeah, like that helped me with my Maths a lot, 'cos like, I could, I could work out how much I spent and 'cos my mum and my auntie used to say to us, "Make sure you get the right change", so we could like worked out ourselves, before they give it to us, how much we were gonna get. Things like the make-up, we had to read what the spelling, say on the front. So that was quite good yeah.* **Charley, girl, Group 1 (low SES, attainment higher than predicted).**

---

[10] Effective *practical and emotional support* was mentioned for eleven girls and seven boys from Group 1 and for all six children from Group 4.

[11] Ineffective *practical and emotional support* was mentioned for eight boys and two girls from Group 2 and for all three boys and for four girls from Group 3.

[12] Effective *practical support* was mentioned for six boys and seven girls from Group 1 and for all six students from Group 4.

As children got older their parents stimulated them by taking them to the library, bought them commercial Key Stage books to practice for exams or simply made up extra sums to get the child to practice Maths. Extra tutoring for exams was regularly provided, particularly in high SES families. Towards the end of primary school and in secondary school, having a parent (or sibling) sit down with them and explain difficult homework helped students develop new learning strategies, skills to cope with future difficulties and made them feel supported and cared for.

> *I remember when I first started doing division, long division, and it was him [my dad] that gave me, kind of, methods to do which I always found really helpful. I found his method much more helpful, for me, than the others. [I use it] to the day.* **Shaquille, boy**, **Group 1 (low SES, attainment higher than predicted).**

In cases where participants from Group 2 (Low SES, predicted attainment) and Group 3 (High SES, low attainment) identified *practical home support* as insufficient they either referred to having been offered too little support or having offered or received too much support[13]. In the first case, parents regretted not having taken the time to read more with the child, engage the child in more informal learning activities such as educational computer games, or to make sure the children actually did their homework. They also regretted not having attended parent evenings, or pushed the school and teachers for additional help for their struggling child. Although, the parents of Subash implemented an intensive home programme to help him with his reading and school work once they realised how serious his problems really were, his father reflected:

> *What could have helped was if we would have done it sooner, but we didn't know we had to do it…as parents. We're not teachers, like I said earlier, we only realised we had to do it because it wasn't being done in the school… I'd say he was about seven…maybe eight or nine and then he was still being…Now he's up to speed with his peers at school, but he was about two-and-a-half years behind them and we've struggled like hell to get him up there.* **Father of Subash, boy, Group 3 (high SES, attainment below prediction).**

In contrast, some parents felt they had done too much for their child and as a result the child was not getting the help it needed in school. Christopher's mother talked about how her son refuses to work in school even when he is offered help by a teaching assistant. When asked what she felt might be the reason for his behaviour she stated:

> *He was never sort of left to, you know, he used to come and say: 'I can't do that!' We'd never sort of say to him 'Just have a go'. Someone would be like 'Alright, I'll do it for you', whether it be me, one of the other girls, or...really, it was like he had another two mums there, at nine and seven.... everybody did everything for him, so he's grown up with that.* **Mother of Christopher, boy, Group 2 (low SES, attainment as predicted).**

For academically successful children from low and high SES families *emotional support and encouragement* by parents and in one case also by an older sibling, was seen as an important 'protective' factor[14]. Having parents who asked them about school, took an interest in how they were doing and talked to them about their future made students feel 'happy', 'encouraged' and 'supported'.

---

[13] Ineffective practical support was mentioned for seven boys and two girls from Group 2 and for all three boys and for four girls from Group 3.

[14] Effective *emotional support* was mentioned for five boys and seven girls from Group 1 and for all six students from Group 4.

Abdi was one of the boys who mentioned that his parents would often speak to him about school and his future even at a young age. When asked if he felt this might have helped him do well in school he answered:

> *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).**

For some students having parents who encouraged them to do well in school and aim high for their future stimulated them to apply themselves. They felt 'inspired' and want to 'push to make a future' and 'be successful in life'. In particular, high SES parents with children succeeding as predicted talked extensively with the children about their experiences in school throughout the years. In their communications it was almost assumed to be a given that although the children might not always do as well as they possibly could in school, they would eventually be fine and go to University. This seemed to reinforce these children's confidence in their future.

For the academically less successful children from Group 2 (Low SES, predicted attainment) and Group 3 (High SES, low attainment), particularly the boys, the *emotional support and encouragement* they received were often deemed insufficient[15]. Parents were perceived not to have stimulated the children enough to apply themselves, by not asking about school or school work, having low aspirations for the child, or not making it clear to the child that even in primary school doing the work in class and at home and paying attention in class were important.

> *I mean, my husband's a manual worker, my dad was a manual worker, so none of us have been a doctor or a lawyer, or…I I think you just…you don't expect much more of them than what you know of your…close family already. There's no common example to follow, if you like…or no competition, if that's the best word to use perhaps. So, I just want him to be happy in what he's doing….You don't know, maybe in several years time he might change and think: 'Well I really want to do that now' and go and do what we thought maybe he'd never do.* **Mother of Christopher, boy, Group 2 (low SES, attainment as predicted).**

In a few cases siblings were thought to have had an adverse affect on how children applied themselves through the negative example they set.

4.5 'Protective' and 'Risk' factors related to the school environment

For almost all children explanations about why they were succeeding or why they failed to succeed included references to the teachers and events these children encountered in school. The majority of positive and negative explanations[16] referred to particular characteristics of the teachers and the way they taught their classes.

---

[15] Insufficient *emotional support* was mentioned for seven boys from Group 2 and for three girls and one boy from Group 3.

[16] References to teachers as 'protective' influences were made for eight boys and ten girls from Group 1 and for all six students from Group 4; references to teachers as having contributed to less successful school attainment were made for five boys and one girl from Group 2 and for five girls and two boys from Group 3.

When talking about teachers that had been particularly helpful to these children three patterns of teacher characteristics emerged. Firstly, teachers were perceived as being particularly helpful when they were *sensitive* to the child's particular needs and responding to the child in accordance to these needs[17]. These teachers, for instance, provided the children with extra help when needed but were also willing to offer additional, more difficult work to challenge children to stretch their development.

> *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).**

The second pattern showed that teachers who were perceived to have helped the students do well, were characterized as being 'strict' and 'in control', but simultaneously as 'calm' 'nice', 'enthusiastic' and 'friendly'[18]. By being *authoritative*, rather than authoritarian or permissive in the way they approached and taught students these teachers inspired students to apply themselves during the lessons and in their school work. The following example was given by a 15 year old girl when asked how the teacher would help her do well in school. She refers to the Religious Education teacher in her secondary school:

> *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).**

The final teacher characteristic that was mentioned was the teacher's use of *interactive teaching*[19]. According to the students the use of ball games to learn about numbers and Maths, films to illustrate social and moral dilemmas during religious education or attending the theatre to learn about English literature made lessons 'less boring' and easier to 'pay attention' but also made it easier for the student to recall what they had learned later on, for instance during a test or exam.

---

[17] *Sensitive responsiveness* was mentioned for seven boys and nine girls from Group 1 and for three boys and two girls from Group 4.

[18] References to *authoritative teaching* as a 'protective' factor were made for five boys and seven girls from Group 1 and for all six students from Group 4.

[19] *Interactive teaching* as a 'protective' factor was mentioned for five boys and six girls from Group 1 and for all three boys and one girl from Group 4.

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).**

For the children who had been less successful academically, lack of school success was commonly attributed to the teachers, or rather the mismatch between the needs of the students and what the teacher could or would offer. According to students and parents the teachers who had been least helpful in the child's learning process, supply teachers in particular, had difficulties with keeping order and were 'uninterested in teaching' and unable to motivate the students. Lessons and school work were perceived as 'boring', 'unchallenging' and 'just not right' for the student in question.

It's the way the school is I think, the discipline. I don't think they have good teachers there, that's the problem, the teachers are always changing, and they're very young and inexperienced teachers. I talked to one of his teachers the other day, and he's a Science teacher, and he said to me that Hamid knows what to do to do his project. He can't just ask him all the time. He says he's just here to just watch them. So what kind of teacher would you say that is? **Mother of Hamid, boy, Group 2 (low SES, attainment as predicted).**

For nearly half of the children in the 'resilient' group school policies to provide additional (remedial) classes or mentors were perceived to have played an important role in helping these children overcome possible difficulties with school and learning[20]. In primary school this help generally consisted of 'booster' classes which offered additional help with one or more of their core subjects (i.e. English, Maths or Science). Interestingly, this included all three children from Group 1 (Low SES, higher attainment) whose trajectories showed a steady improvement over time. The children who had attended booster classes mentioned how these had facilitated their learning by helping them grasp the basic concepts and skills of the subject, which provided them with a foundation for further learning. The following student provided a particularly clear description of the benefits the booster class offered her:

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.

---

[20] For six girls and three boys from Group 1 some type of *remedial event* was mentioned as having helped them succeed in school.

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).**

In secondary school the additional help came in the form of after school classes to deal with coursework and revision and also mentors to help the students deal with behavioural and any socio-emotional difficulties they were encountering. The fact that they were offered help made them feel supported and increased their motivation to apply themselves.
Jarell was experiencing difficulties with bullying which was in turn affecting his performance and behaviour in school. His behaviour became progressively worse and eventually he got into a fight with one of the bullies and was suspended as the fight was caught on a security camera, his mother asked the school to intervene:

> *I was concerned in Year 9 where then he was doing things to wind children up…erm, and erm when I went to the parents evening, I just couldn't believe I was listening to… [I was shocked] Yeah…so then I said, "He needs, he needs some help!"*
> ***Is that when he got the mentor?***
> *Yeah. Erm, it did help. He said he enjoyed it, it was every so often …it did help…I think it did help… Yeah, it cleared the air…it cleared the air perhaps and how he was feeling…and he's just done exceptional work…* **Mother of Jarell, boy**, **Group 1 (low SES, attainment higher than predicted).**

Although remedial and revision classes were available for the high SES children who succeeded as predicted, these were hardly used by these children[21]. Rather, if on occasion children encountered difficulties with school subjects or needed some additional help with revision, these middle-class parents could draw upon their personal resources of cultural and social capital, which enabled them to take matters in their own hand and deal with their child's needs outside of school.

For the academically less successful children failure was attributed to the overall way schools were run, including policies on student behaviour, policies regarding help with learning difficulties and lack of continuity in the teaching staff[22]. This pattern was most prevalent for students who showed problematic behaviour and learning disabilities. According to parents and students, the willingness of students to apply themselves was compromised when (Head)teachers did not communicate clearly how they expected students to behave and imposed unreasonable rules. Parents and students often felt they were treated unfairly and that schools did not want to have to deal with the more problematic students. When asked how he looked back on secondary school (before getting permanently excluded), this student remarked:

> *I didn't really like it that much. 'Cos, I don't like… See everything that I did…teachers would be on your back…every step, everywhere…teachers are saying 'I don't want you here', to me and a few other people. The Head is always trying to get you out of the school.* **Tremaine, boy, Group 2 (low SES, attainment as predicted).**

---

[21]Only one boy attended remedial classes for spelling in primary.
[22] *Ineffective policies* were mentioned for four boys and two girls from Group 2 and for two boys and two girls from Group 3.

Many of the less academically successful students had experienced difficulties with one or more school subjects. Mostly, parents and students felt that schools had offered sufficient support. However, a small number of parents felt badly let down by the schools and strongly felt schools had not offered their children the support they had needed to overcome their difficulties with school and learning[23]:

> *She was five, six then and I started to say something then, and they just said, 'We don't do dyslexia until they get to Key Stage 2', and I'm like...'No, it doesn't matter when you do dyslexia, it's when the child has it'. And they're like, 'Yes but we don't have dyslexia, children don't show signs of dyslexia until Key Stage 2', and I'm like 'I don't know where you've done your teacher training, but that's not true'. It was difficult, it was just…made me very angry. Because I knew my child wasn't stupid, you only have to talk to her and y'know, we go to museums, we go to discussions, we used to come here [Institute of Education] to things and it's sort of...the child's not stupid. Because she can't get her words down on paper, you don't need to penalise her for it. But the school started to treat her like she was stupid.* **Mother of Susan, girl, Group 2 (low SES, attainment as predicted).**

4.6 Relationships with peers and friendships as 'Protective' or 'Risk' factors

Peers were thought to have had a positive effect on school success for nearly all children who were 'succeeding against the odds' and for the successful high socio-economic status (SES) children[24]. In almost all cases these *positive influences* came from their friends in school and more specifically their classmates. These peers seemed to have a 'protective' *influence* through the practical support they offered which facilitated children's learning, but also offered encouragement and set a positive example through the way they applied themselves to school, which in turn stimulated the children in our sample to apply themselves as well.

From an early age onwards friends offered *practical support* in class and with homework. Often, students felt it was easier to ask a friend for help than it was to ask the teacher. Charley describes how one of her friends helped her do well in primary school:

> *Sometimes one of my friends, who weren't in my group, like I'd go round her house after school when I got older and we'd do our homework together and fings so we could help each other. Like explain what to do.*
> **Do you think that helped you with your learning?**
> *Yeah. Cos then like, if you didn't understand then you'd be able...your friend would, 'cos their in the different group, then they'd explain the different way how they're doing, how they're doing, sort of things like that.* **Charley, girl, Group 1 (low SES, attainment higher than predicted).**

However, students also benefitted from explaining things to their peers. The following example comes from Asya, a 15 year old girl, who has been doing extremely well ever since she started reception. When asked if she revised in a particular way to prepare for her Key Stage 3 National Assessment tests she answered:

---

[23] *Insufficient support* was mentioned for two boys and two girls from Group 2 and for two boys and one girl from Group 3.

[24] *Positive influence from peers* was mentioned for all eight boys and for twelve girls from Group 1 and for all six students from Group 4.

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).**

Peers were also an important source of *emotional support*. According to the students having friends around in school made them feel 'comfortable', 'confident', 'supported', 'not alone' and made them want to be in school, all of which made it easier for them to apply themselves to the learning process.
Reanna had a difficult time making new friends when she went to secondary school and didn't do so well academically initially, but once she did make friends she started to improve:

> *And I suppose that's... me becoming closer to them, people in my school and class, I kind of, settled in more and I didn't have to worry about what people were thinking or anyone else in the class. It made me kind of relax and so I suppose that made me kind of focus more on my work instead of the people around me.* **Reanna, girl, Group 1 (low SES, attainment higher than predicted).**

Finally, friends offered *motivational support* as they stimulated students to apply themselves by 'encouraging' them, wanting them 'to do well', and 'praising' them and friends who were doing well in school stimulated these students to do even better. For some students a sibling who was doing particularly well or had done well in school in the past triggered them to do even better.

> *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).**

Boys more than girls mentioned they would have little competitions with their friends that pushed them to work harder and faster.

> *That's what I did with math, I wanted to learn quick because I wanted to be first to finish it.* **Peter, boy, Group 1 (low SES, attainment higher than predicted).**

In contrast, peers were thought to have had a negative influence on the majority of the students who were not doing particularly well[25], particularly on how they applied themselves to schoolwork and learning in class. For all these students, examples were provided of how their peers *interfered with their learning processes*, particularly by distracting them. Other examples referred to the fact that peers interfered with the way they would apply themselves as it was not considered 'cool' to do well. The following example comes from a teacher who explained that Hamid's slow progress in the first years of his all-boys secondary school had to do with the fact that he got distracted in class and tended to get a bit 'chatty' with his friends. He then continued to say:

---

[25] Peers had a *negative effect* on three girls and seven boys from Group 2 and four girls and two boys from Group 3.

There was another bit of image there, you see, they can't be seen to be too keen, but quietly he'll get on with some of his work if you set a project or independently work to be done at home. It's that boy thing isn't it? In front of their peers, they don't want to be seen to be doing brilliantly sort of thing. But he'll do it in his book, quietly, but then when you get his homework, or his project work, his independent learning, you'll see that he really has put an effort into it, particularly this year, since he's started his GCSE's. **Teacher of Hamid, boy, Group 2 (low SES, attainment as predicted).**

A second, less common, way for peers to negatively affect students learning processes was by *encouraging problem behaviour*, such as getting them to act up in class, get into fights or 'get them to do stupid things' (3 girls and 4 boys). For some children this problem behaviour followed from being bullied by their peers, in other cases it was their friends that *negatively influenced* them:

I think he is quite controlled by what he does outside of school in a negative way. Tremaine is involved with the gang culture. Let me have a look [in his file]. They've actually said, yeah he's got a physical assault, yeah he got into a physical assault with hospital treatment and police involvement so... he was permanently excluded. **Teacher of Tremaine, boy, Group 2 (low SES, attainment as predicted).**

4.7 Relationships external to home and school as 'Protective' factors

A final pattern showed that for successful low SES children a range of adults besides their parents had played an important part in facilitating their learning and stimulating them to apply themselves[26] by offering them emotional and practical support with their school work. In most cases the adults were family members like a grandparent, aunt or uncle, or older cousin and in some cases a friend of the family.

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).**

All the high SES children succeeding as predicted, and their parents, felt well supported by the people around them, such as family members or family friends. However, this support was not usually of a practical or emotional nature but rather came in the form of providing a good role model.

I think there's quite a few of the family that have, like, gone to University and have got, you know, Masters in things as well, so he's seen that learning is continual. I mean I got my degree part time at work, and his dad's got two, and there is that, you know, uncles have got degrees and things, so he's definitely seen that it doesn't just finish. You know, it doesn't stop at sixteen and then you just go and work in Morrison's for the rest of your life so he does know that, I mean, he also knows that you can change direction, which think is a very useful lesson to be learned. **Mother**

---

[26] *Significant others* were mentioned as 'protective' factor for nine girls and six boys from Group 1.

of Benjamin, boy, Group 4 (high SES, attainment as predicted).

Section 5: Why do some 'at-risk' children 'succeed against the odds' while others fall further behind?

Throughout a child's life, and particularly in the early years, family life is widely recognized as one of the primary microsystems, if not the most important microsystem, for cognitive and socio-emotional development. A study with 7-year-old twins (Turkheimer et al., 2003) suggests that the influences of experiences through proximal processes in microsystems might be particularly important for the child's general abilities like IQ, and this appears more important in impoverished, low socio-economic status (SES), environments than in affluent, high SES families. The study found that for children from poor families, shared environment accounted for 60% of the variance in IQ, while the proportion of variance explained by genes was virtually none. For children from wealthier backgrounds, by contrast, genes accounted for a high proportion of variance (Turkheimer et al., 2003). The implication seems to be that *what parents do with their child* is of particular importance for children's academic success when children grow up in disadvantaged social circumstances (see also Melhuish et al., 2001). The following sections look more closely at factors that act as 'protective' influences in combating poor outcomes. More specifically, we discuss *what* families, schools and other people do that helps children succeed and *why* they do this. A 'top down' approach is used in Section 5 in developing categories of 'protective' and 'risk' factors based on a literature review; interview data was coded and analysed accordingly. Given the primary aim to learn more about why certain disadvantaged children 'succeed against the odds', the 'protective' factors we identified for these children (Group 1: Low SES, higher attainment) will be the main focus of this section. The section begins with a description of what characterizes these children and their experiences with parents and family, school and peers and the wider community. To create a context, findings from this group (Low SES, higher attainment) are related to the findings in our three other groups.

5.1   What characterizes children who 'succeed against the odds'?

5.1.1   Perceived cognitive ability

Academic achievement can be perceived as a function of cognitive and socio-emotional behaviour components of the child (Evans & Rosenbaum, 2008). For nearly all the boys and the majority of the girls who were 'succeeding against the odds' (Group 1: Low SES, higher attainment) as well as the 'successful' high SES children (Group 4), cognitive abilities functioned as a 'protective' child characteristic. In the case of the children from socio-economically advantaged and disadvantaged families who did not do so well (Group 2: Low SES, predicted attainment; Group 3: High SES, low attainment), references to their cognitive abilities were nearly always negative for at least one cognitive domain (i.e. English or Maths).

The Child and Family Case Studies (CFCS) found that almost all parents and children looked at cognitive ability as something that was inherent to the child and therefore not or hardly susceptible to external influences such as parenting or teaching. Nonetheless, the in-depth interviews provided ample examples of how the academically successful children had in fact received abundant opportunities to develop their cognitive abilities as well as ongoing positive reinforcement by family members, teachers, peers and other significant adults that helped them develop a positive 'self-image'. Research shows that developing a positive belief in your learning capabilities, i.e. developing a 'masterful' disposition, is closely related to academic achievement (Dweck, 1999). Moreover, there is strong evidence from studies of academic self-concept showing that attainment and academic self-concept are mutually reinforcing (Marsh, 2006; Marsh, Smith & Barnes, 1985). This is illustrated in the following quote:

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).**

Furthermore, the parenting behaviour in families of children who were doing well, in particular, reflected a belief in the parent's efficacy to positively influence the child's learning. Although we cannot establish the direction of influence between this perceived efficacy and cognitive development, it is not unlikely that the positive association we observed between children's cognitive skills and displayed parental efficacy is bi-directional: when children are cognitively successful parents feel that their parenting has been successful and are reinforced to continue their parenting practices; when parents believe they can have an effect on their child's cognitive ability they might feel more inclined to provide the child with experiences that stimulate cognitive development such as a rich early years home learning environment (HLE). The parenting behaviours in the families of academically less successful children on the other hand mirrored the belief that difficulties with learning were hard to influence (Siraj-Blatchford et al., 2007). The negative perceptions of children's cognitive abilities and perceived failure or limitations in ones capacity to facilitate positive development of cognitive skills might lead to feelings of 'helplessness' (Dweck, 1999). Indeed, we found that although some families attempted to provide extra help with school learning, this was mostly short-lived as these children typically showed little motivation for extra school work and parents found it too demanding to keep pushing their child when the positive effects were not obvious.

5.1.2   Positive child behaviours and attitudes

In addition to the child's perceived cognitive ability, certain other child characteristics and behaviours, such as self-regulation abilities, positive attitudes towards homework, positive perceptions of personal competencies and internal academic locus of control, have been associated with better achievement in school (Bursik & Martin, 2006; Hoover-Dempsey et al., 2001; McNeal, 2001). These particular child characteristics appear to facilitate the child's adaptation to the school environment and to school learning. While these 'protective' child characteristics were commonly used to describe the CFCS children who 'succeeded against the odds' (Group 1: Low SES, higher attainment) and their successful high SES peers (Group 4: High SES, predicted attainment), they were far less often used to characterize the children who were 'vulnerable' to lower academic achievement (Group 2: Low SES, predicted attainment; Group 3: High SES, low attainment). As a result, the successful children felt happy and capable in school. They did not just enjoy learning but the school experience as a whole and therefore were able to make the most of what schools had to offer.

Ability to self-regulate appears to be the joint result of external processes, such as parenting and education, and internal biological processes of maturation (Greene & Way, 2005). Although children from low SES backgrounds generally are found to have more difficulties regulating their emotions and behaviour in comparison with wealthier peers, research shows that self-regulation mediates the effects of low income and poverty on achievement (Evans & Rosenbaum, 2008).

The EPPSE project showed that early self-regulation skills had the strongest effect on children's academic 'resilience' at ages 5 and 10 (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2007). Furthermore, 'Self-regulation' has been shown to be the dimension of social behaviour most closely linked with academic attainment for the EPPSE sample at ages 7 and 11 (Sylva et al., 2004; Sammons et al., 2008a). The examples of successful children's ability to self-regulate their emotions and behaviours in the CFCS show how these children used a range of strategies to self-regulate and were supported in taking responsibility for their behaviours.

The academically successful children (Group 1: Low SES, higher attainment; Group 4: High SES, predicted attainment) managed to concentrate in difficult circumstances, for instance when peers were trying to distract them in class they 'just focussed', 'listened', or 'shut off' from distractions. They committed to school work even if they were not particularly interested in the subject or had other things they wanted to do.

> *It's just like will power, I actually think to myself, you know, 'You've only got to sit behind the desk for an hour and concentrate for an hour, if you can do that, then you've got the rest of the day to enjoy yourself, and you've got the weekends and things like that'. I know that if there's something to be done I must do it. I can't just like let it build up and build up and if I don't understand something I'll ask for it.*
> **Anjali, girl, Group 1 (low SES, attainment higher than predicted).**

If academically successful students faced difficulties with a task they would actively try to solve the problem by just 'trying', 'having a go at it'. If they were unable to resolve a situation themselves or encountered a setback they were willing to look for and accept external help from peers, teachers, parents, siblings or other adults. They often used books such as dictionaries and encyclopaedias, but especially computers. Computers helped in several ways. Text editing programmes for instance helped them to deal with handwriting difficulties and spelling difficulties while the internet helped them to research topics for assignments, provided them with on-line revision sources such as BBC Bitesize and social networking sites gave them access to their peers so they could ask them for help. Computers and books were sources of pleasure and relaxation as well. This positive attitude and frequent use of books and computers clearly facilitated their learning but might even play a greater role in their future academic achievement. Computer literacy has become an essential part of today's society. According to Barron (2006) computers are often used to facilitate self-initiated learning by adolescents as they are used to seek out text-based informational sources, the creation of new interactive activities, the pursuit of structured learning opportunities, the exploration of media and the development of mentoring or knowledge-sharing relationships and as such serve as a catalyst for learning. The importance of reading books as a well loved hobby is illustrated by a recent review about who the people are that read and what reading offers them (Griswold, McDonnell & Wright, 2005). The review shows that although most people in the developed world are able to read and will read to some extent as part of their jobs, on-line activities and daily lives, only a minority will read books on a regular basis. Reading is now generally regarded as a 'good thing' but the growing division between reading as matter-of-fact practice and reading of literature, serious non-fiction and the quality press, suggests a 'reading class' is emerging as these reading habits are considered prestigious and seen as practices of an educated elite.

Particularly among our low SES families, children frequently encountered negative life events such as unstable family situations or divorce, serious illness or loss of a loved one, or serious problems with peers or siblings. The academically less successful children (Group 2: Low SES, predicted attainment) often felt overwhelmed and unable to influence these bad events and as a result expressed more anxiety and feelings of depression. The successful low SES children (Group 1: Low SES, higher attainment) on the other hand refused to let these experiences negatively affect their school achievement. Instead, these children used school and the focus required for learning as distractions from their troubles. As such these children did not only show educational 'resilience' but also psychological 'resilience'.

> *Well I did try and keep ... school and ... what was happening at home ... separate cause I didn't want it to interfere 'cause I was doing well so ... didn't wanna loose that.* **Steven, boy, Group 1 (low SES, attainment higher than predicted).**

Many of the successful children showed a willingness to learn and an overall positive attitude to school and learning that seemed to come from within. This internal drive to learn characterized them from a young age:

> *She has always been inquisitive, she is very into, uhm I know this from her, she's quite good at learning things, being curious about things.* **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted).**

A study into ego development and adolescent academic achievement showed that children's excitement by opportunities to learn, their tendency to feel intrinsically motivated by the learning experience and a regard for knowledge as a reward, are all indications of a strong positive learning orientation. These positive learning orientations tend to increase during adolescence and are associated with higher achievement (Bursik & Martin, 2006).

For the majority of children 'succeeding against the odds' their self-regulation appeared to be further motivated by their goal orientation and aspirations. External motivation for learning, including a strong focus on earning high grades and aiming to please teachers in order to receive positive feedback, is typically negatively associated with academic success and usually diminishes with maturation during adolescence (Bursik & Martin, 2006). Interestingly, in the CFCS we found that successful boys in particular were spurred on by a strong grade orientation. A possible explanation might be that the actual motivation underlying this external orientation was indeed intrinsic. Steven for instance had a very strong grade orientation but this seemed primarily intrinsically motivated: he described that he has a 'sort of natural urge to be above 80%' in tests. His mother says the following:

> *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).**

The children 'succeeding against the odds' also expressed ambitious future goals, such as going to college and University, and aiming for professional careers in law, engineering, medicine, teaching or finance. Anjali was doing her GCSEs and aims to become a barrister:

Well first I'm gonna get, make sure I do well in my GCSEs. I don't want to focus too much on the future, 'cos I can't have a future if I haven't got this like done, so I'm going to revise as much as I can for my GCSEs, make sure I do well in them. Then obviously I'm setting up to go into Sixth-form and some Universities that I've looked at, that I'd like to go to and things like that and seeing what grades they want and what they expect from people who want to join up, so now I know what it's like, I know what sort of goals and targets I've got to achieve to become a barrister, so…
Anjali, girl, Group 1 (low SES, attainment higher than predicted).

This goal orientation seemed primarily instrumental as they perceived these futures as ways to achieve economic independence and employment opportunities and was related to the value placed by their parents on education and their high expectations for their child. A longitudinal study that followed up the job aspirations of teenagers in the UK at age 33 showed that these early aspirations predicted specific professional occupational attainments in adulthood. Occupational attainment at a later age was not only significantly related to aspirations at 16, but also to children's belief in their own ability and their Maths performance at age 16 (Schoon, 2001). This suggests that these children's goal orientation, which was reinforced by parents and schools, might help them to follow up their educational achievements with future occupational achievements.

5.2   Characteristics of academically effective low SES homes

Provision of educational experiences as part of everyday family life is perhaps the most well established pattern of influence of proximal processes in the family microsystem. Longitudinal research such as the EPPE/EPPSE study has provided evidence for the strong and lasting effect of what is termed the early years HLE on both cognitive and social/behavioural development of children (Sylva et al., 2008; cf. Sammons et al., 2008a; 2008b). A wide range of activities related to the home environment have been identified as having a positive effect on children's developmental outcomes at different stages of their lives. At the pre-school age, activities such as joint storybook reading, oral storytelling, mealtime conversations, games with numbers, painting and drawing, and also visits to the library or teaching and playing with children with letters and numbers are important (Melhuish et al., 2008; see further Bradley, 2002; Bus, Jzendoorn & Pellegrini, 1995; Duursma et al., 2007; Leseman, Scheele, Mayo & Messer, 2007). Research shows that these early learning activities are more commonly part of child rearing practices in the home environment of middle class families (Hart & Risley, 1995; Hoff, 2003; Molfese, Modglin, & Molfese, 2003; Tudge, Odero, Hogan & Etz, 2003). In the following quote a mother explains why she read with her daughter from a young age:

Because I think that's the base, the route of all education, if you can't read then you can't get an appreciation of books and so forth, right from the word go.
How would you get Abby to appreciate books at that age?
Erm, well we just had so many, because I mean, from the first the boys, and all my family are into books and there's a lot of book club things that I used to go to. You know, coffee mornings and that sort of thing? And just because I like them and they're beautiful, they're so lovely children's books. And in the nursery as well, they always have the lovely little reading corners and things like that, they did take books out, they did have the little library thing. Yes, and it's just a nice thing to sit down and do, I suppose. I mean, if they're showing interest and want to do it as well, it makes it easier, but to me it was important, and all my family are a bit like that, and you know, I suppose that's just how it sort of, transferred down to me. I mean I can't say I'm a big reader at the moment. Their stepfather he's an avid reader but I don't actually feel that it's made them want to read books as they've grown up, it was there and that

was my bit as Mum that you should be doing that and encouraging that. **Mother of Abby, girl, Group 4 (high SES, attainment as predicted).**

Similar examples of stimulating early years HLEs were found for nearly every high SES child in the CFC studies (i.e. 12 out of the 15 high SES CFCS children had medium to high early years HLEs). Right from the start these families 'cultivate' skills and attitudes that prepare their children for a successful academic career. School relevant early learning activities such as book reading are an inherent aspect of child rearing, or as one mother put it when asked why she felt it was important to read with her child: "What else is there in life really?"

5.2.1   Effective early years Home Learning Environments (HLEs) in low SES families

High prevalence of educationally relevant early learning experiences are by no means absent in less affluent homes, nor are they always present in high SES families. However, qualitative and quantitative analyses from the EPPE 3-11 research (Melhuish et al., 2008; Siraj-Blatchford, 2010) showed that children from disadvantaged backgrounds with high attainment typically came from families that provide them with a highly favourable early years HLE in combination with attendance at a high quality pre-school setting. These children and families were found across different minority ethnic groups. The measures of the early years HLE included frequency of being read to, going to the library, playing with numbers, painting and drawing, being taught letters, being taught numbers, songs/poems/rhymes (see Appendix 10 for more details).

In the CFCS sample we found medium to high scoring early years HLEs for just over half of the low SES children 'succeeding against the odds' (Group 1: Low SES, higher attainment), compared to forty percent of their peers (Group 2: Low SES, predicted attainment). These children (Group 1) had ample opportunities to experience activities which helped them develop school relevant skills. Often the parents were very creative at finding enjoyable and stimulating activities for their child that would not put an extra strain on the often limited household budget.

> *'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).**

In contrast, the other eighteen children from disadvantaged families (5 girls and 4 boys who were 'succeeding against the odds', and 8 boys and 1 girl who were succeeding as predicted) in the CFCS, had lower early years HLEs (i.e. lowest 40%). This certainly did not mean children received no early learning experiences in their home environment, nor did it necessarily mean that the quality of the experiences was low. It did indicate however, that the frequency of experiences was lower for these children. Despite their lower early years HLE, the analysis of the CFCS interviews showed that for all children who were 'succeeding against the odds' except one (i.e. the girl who had been adopted at age six), stimulating early years HLE activities involving parents and children, such as book reading and teaching letters and numbers, were in fact provided. One mother described an elaborate ritual she and her son shared before bedtime that actually involved reading, rhymes and storytelling, despite the overall lower early years HLE:

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).**

What seemed to set apart the experiences of low SES children with lower early years HLEs who 'succeeded against the odds' from those who did not was the *quality* of the interaction during these activities. The forgoing example showed that despite the fact that this mother had a job and had a disabled older child to take care of, she made the effort to spend quality time with her son because she felt this would benefit his education. The early learning experiences she described during the interview had many of the characteristics positively associated with children's cognitive and socio-emotional development. For instance, she talked to her son about his thoughts and feelings and so was supporting him to develop the ability to reflect on his own actions as well as on those of others, but was also stimulating and modelling the use of abstract language. Although these quality characteristics are commonly found among high SES families, they are less often present in interactions between low SES parents and their young children, particularly among mothers with low educational qualifications (Hart & Risley, 1995; Hoff, 2003; Tudge et al., 2003).

Nearly all boys from low SES families who did not 'succeed against the odds' had low early years HLEs (8 out of 10; the other two had medium early years HLEs). For these boys, interactions in the home environment consisted mainly of outdoor activities with other children, such as siblings, nephews and children who lived on their street. Although these boys did sometimes play games with their parents or read books together, their parents often felt they were not particularly interested in these activities and perhaps as a result these activities were not a regular part of family interactions:

He wasn't really much into the letters and number things as a child, to be honest, more into playing with toys and...Yeah, cars and stuff like that. Yeah, stuff like that. He wouldn't actually bother to do that kind of stuff at an early age. **Father of Harry, boy, Group 2 (low SES, attainment as predicted).**

For these boys in particular the home environment and attitude of parents towards early learning seemed much more oriented towards, what Lareau (2003) has termed 'accomplishment of natural growth', with much child initiated peer play, long stretches of leisure time and frequent interaction with members of the extended family:

[We would play with him] sometimes if he asked us to, but sometimes he was like more independent, he weren't gonna do anything you tell him, sometimes he would let you play, sometimes he wouldn't. He had loads of friends…he grew up with the next door neighbour, 'cos he's the same age as him and they grew up like, since they was little, right to the end. [He played outside with cousins] all the time really, but we didn't have to go far because we're a close family and we're all like living in the street (laughs). **Mother of Richard, boy, Group 2 (low SES, attainment as predicted).**

5.2.2   Factors influencing the early years Home Learning Environment

Parents offered several reasons for not being able to provide a high early years HLE. Many mothers mentioned that they felt they had not had enough time due to *family circumstances*. In several of the families mothers had health problems or the children had severely ill or disabled siblings or relatives. This took time from mothers and often brought about stress and feelings of sadness and guilt. The Centre for Excellence and Outcomes (C4EO) Early Years Knowledge Review (2009) discusses at length the empirical evidence that supports the understanding that putting in place new policies aimed at supporting these families dealing with multiple disadvantages could make an important contribution to improve children's attainment (Siraj-Blatchford & Siraj-Blatchford, 2009). Many of the CFCS parents felt they were not spending enough time with their child and tried to provide the child with alternative learning opportunities, for instance, by enrolling them in a pre-school or by accepting support from their family and extended social network, such as their religious community.

> *'Cos I just thought it would be better for him really [to attend nursery]. They're probably getting more stimulation at school than what I would have been able to give him I suppose. Because of taking care of my mum. Yeah, like I say, in hindsight now, she really did take all my time, whereas really I should have tried to cut myself in two, but you can't. It's difficult when somebody needs that amount of care, you tend to let the one that can look after themselves, look after themselves, and you have to look after the one that needs the help. So, y'know, as I say, he probably hasn't had the most…stable's not the right word, because we were always there for him, everybody's always been there for him. But he probably hasn't had the amount of attention that he deserves or warranted as a little boy, really…and that's being completely honest.* **Mother of Christopher, boy, Group 3 (high SES, attainment below prediction).**

Parental work was also mentioned as an explanation for not being able to spend much time with the child (for an overview of family demographic variables see Appendices 6 and 7). The majority of mothers and all of the fathers from the high SES families worked when the children were young. The three children from high SES families who had low early years HLEs all had working mothers and fathers.

> *I didn't play with him, because when he was at an age where I should have been doing little words, making blocks and things, I was extremely busy in the business… We were all involved in the business, there was no spare time, we left all of that to the other children to do, you know… His cousins did colouring and stuff like that. I should have done it, but it's just, it was out of our, you know, it wasn't, we couldn't do it at the time…it was impossible…*
> **I saw in the case notes that he attended play group for over 50 hours a week?**
> *That's right…yeah, he was almost living there…we'd drop him off early in the morning, pick him up late at night…it was a nightmare for him as well, I'm sure it was.* **Father of Subash, boy, Group 3 (high SES, attainment below prediction).**

However, most high SES working parents did manage to provide a high early years HLE, particularly for girls. The high SES working mothers felt that at the time it had been important for them as an individual to work and that by doing so they provided an important role model to their daughters.

Mother: I think she respects that I'm busy as well. I've got things that I have to do and I think that also that sort of well it gives a work ethic doesn't it? That there is a work ethic within this family, she's gonna know that she's…in fact she wants a part-time job now, doesn't she? She keeps going on about she wants a part-time job…but her father said to her she can't have one yet…(laughs)
Father: Well she's too busy, she's too busy…
Mother: She's a bit young but she probably will get one in the summer. I don't think they've been deprived really by the fact of me working, or both of us working. I've only just started full-time actually, just last year so… it's always been sort of four days, three or four days a week. I think it's quite good, it's good the kids know that there's an ambition…that gives them a bit of ambition to do something and… yeah I think it's good. **Parents of Chloe, girl, Group 3 (high SES, attainment below prediction).**

Twelve of the thirty-five low SES mothers were working when the children were young, mostly part time, and for seven of these families the early years HLE was low. For many low SES mothers staying at home was not an option: in sixteen cases these mothers were lone parents (compared to one mother from the high SES sample) and in four cases fathers were unemployed (none of the high SES fathers were unemployed). Although the (additional) income through work helped, providing a rich early years HLE was particularly complicated when several of these circumstances came together. This is illustrated by the mother of Jarell, one of the boys from a low SES background who 'succeeded against the odds'. When asked about the activities she engaged her son in before he started school, Jarell's mother (low early HLE) said the following:

When he was at home, it was very difficult actually for me… Because I was working full-time, his dad was working nights full-time…and then I had the two daughters one was disabled and I'd had them a year before Jarell was born. So the one is Down syndrome and the other one was just a bit older, but they'd come from a different country, so… [They are] my husband's. So they were born in the Caribbean, Granada, so their culture was different, even though I'm a Grenadian…I was brought up in England, so after having Jarell, I had a lot of sort of post-natal depression…It was really hard and I went to work as well, and then looked after the two girls, and the, the, the one who has Down syndrome, though she was eight at the time, she had terrible mood swings because of her hormones, because she started puberty at the age of nine…So leading up to all I remember it was just tough juggling everything around…But what we did, from the age of two, and I suppose that's positive, I started going back to church, so Jarell came to church with me and he was involved in the children's activities there, so every Sunday we'd do that. **Mother of Jarell, boy, Group 1 (low SES, attainment higher than predicted).**

This kind of alternative early learning experience mentioned by Jarell's mother was typical for low SES families with low early years HLEs, whose children did 'succeed against the odds'. Because these parents felt it was important to help their child develop school relevant skills and behaviour, and because they were aware they could not always provide these experiences to the extent they felt appropriate, these parents tried to find alternative ways to offer them rich early learning experiences. For some, this meant that older siblings read to them or played (computer) games with them. For others, there were other adults, often family members such as grandparents, but also family friends, neighbours or members of their religious community that provided learning experiences. This suggests that at least for some of these children, the limited learning experiences they might have had (and reported on during the interviews) with their parents were compensated to a certain extent by other people in their environment.

Charley was one of the girls with the lowest HLE at age three. The following excerpt from the parent interview shows that although Charley's mother did not feel comfortable doing activities that are typically part of a high early years HLE, she did provide Charley with many other experiences through which she could develop school relevant skills. She also made sure that Charley had a strong network of significant others who could provide these experiences.

> ***Can you tell me a bit about what Charley was like when she was a little girl?***
> *(Laughing) 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.*
> ***What kind of things did she enjoy learning?***
> *Everything really, she would always pick a book up, she would always amuse herself with …toys un…yeah, she was definitely…*
> ***What kind of things would you do with her?***
> *I would do things with her, her dad used to read more with her than what I used to, I used to play with her a lot but her dad would be the one who would sit down, and who would read with her and her Nana as well.*
> ***Did they have a regular reading routine?***
> *Umm, not so much regular but Charley would always pick books up for you to read quite…quite a lot.*
> ***And you said you played with her…***
> *A lot yeah… All sorts of things really, I can't sort of really remember what…she used to love jigsaws, floor puzzles, that sort of things she used to like doing…and the park… really.*
> ***Do you remember teaching her letters and numbers?***
> *Her dad was more that than what I was.*
> ***Why do you think that was?***
> *I don't know, her dad just…her dad's very clever (laughing) and he always sort of really used to do all of that sort of things with her. He'd sit down with her and her dad would do all of that with her more than me.* **Mother of Charley, girl, Group 1 (low SES, attainment higher than predicted).**

The CFCS interviews further showed that regardless of the actual early years HLE the family, parents and students who 'succeeded against the odds' perceived early years HLE activities as *valuable opportunities* for the child to develop cognitive skills that would help and prepare the child to do well in school but also to develop a positive attitude and interest to school related activities.

> *[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).**

From an early age onwards HLE activities such as reading were seen as something that was not just useful, but naturally enjoyable for both parents and children. They provided parents and children with opportunities to bond and as such supported a good relationship between them. Although this also seemed to be the case for the 'vulnerable' girls from the low SES families, this appeared to be less so for the 'vulnerable' boys. Nearly all these boys had low

early years HLEs and for them particularly this aspect of enjoyment seemed to be missing.

> *Nope… Never been interested in books at all. He can read. He's never…he's a lot like me in that respect . I hated reading when I was a child, I could read before I went to school, my mum was very good and taught me to read before I went to school, but I didn't with him, he learned at school.*
> **Why didn't you do that with him?**
> *'Cos he hated books! We could do like, sort of flash cards and certain things if you were just out and about. You know, little things he'd pick up, but I never actually sat and taught him to read as such, 'cos he wasn't interested. He'd rather be doing something, rather than sitting with a book. I'm not even sure if he can do it now, but I don't think he's got the ability to make up the pictures? You know when you read a book you make up the people's faces and the situation that they're in, you have a mental picture of what's goin' on? He just reads the words and I don't think they really absorb and mean anything.*
> **How did you discover that?**
> *Because I think he's like me and I hated books when I was at school. I read because I had to.* **Mother of John, boy, Group 2 (low SES, attainment as predicted).**

For many of the CFCS children from high SES families who did not do as well as expected academically (Group 3: High SES, low attainment), parents indicated that their child had experienced learning difficulties at certain points in their development. In most cases no formal diagnosis or statement of Special Education Needs (SEN) was provided, but the effect of these difficulties seemed to be that children lost interest in the subject(s) they were experiencing difficulties with. As a result, these children tended not to participate in particular aspects of the early years HLE even though it was offered to them.

> *She still used to be read to, but she seemed to lose interest in books in a big way. Y'know, she wasn't so keen? We used to go to the library fairly often and she wasn't interested in going any more. Book she got for her birthday or Christmas weren't really given much attention. We still used to try to read with her, but you could tell it was something she wasn't enjoying. It was quite a frustrating period.* **Mother of Marcy, girl, Group 3 (high SES, attainment below prediction).**

The validity of the assumption that children bring the skills, abilities, and competencies they developed during early proximal processes in the family context with them once they start participating in (pre)school classrooms is supported by empirical evidence. A study by Tudge and colleagues (2003) for instance found that children who were more familiar with decontextualized conversations, because of their earlier family experiences, initiated and engaged in more conversations in reception and were subsequently perceived by their teachers as being more competent. Early reading activities in particular seem to be important for children's school readiness as they increase children's early language abilities, which in turn allow them to benefit from the proximal process opportunities in class (Forget-Dubois et al., 2009; cf. Bus et al., 1995). Early literacy activities such as those mentioned above are important because they offer rich language experiences through the objects involved such as with storybook texts that typically offer examples of rare words, and coherently connected discourses conveying complex narratives, statements or arguments (Leseman et al., 2007). They are also important because they stimulate the use of aspects of child-directed speech that are positive predictors of language development such as quantity of speech, lexical richness of the language, the rate of question asking, length of their utterances, syntactic complexity and metalinguistic references (Alexander Pan, Rowe, Singer & Snow, 2005). The language used during home literacy activities resembles the academic language register that is used in classroom instruction and textbooks (Leseman et al., 2007). As such, home literacy activities provide children with the necessary opportunities to encounter and develop a vocabulary that will allow them to participate in classroom activities and in understanding instructions in school (Mayo & Leseman, 2008).

As with the full EPPSE sample (see figure 5) we found *gender differences* in the early years HLE experiences of the CFCS children: more girls than boys experienced medium and high early years HLEs (i.e. 9 out of 24 boys and 20 out of 26 girls). The CFCS did not show that differences in early HLE experiences were related to *ethnicity*: high and low early years HLEs were found among White UK families and among families from different ethnic heritage. Furthermore we did not find any indications of ethnic-cultural differences in explanations about why parents did or did not provide a high scoring early years HLE. In general, parents who provided higher early HLEs felt that by doing so they were preparing their child for school, helping them 'get a head start'.

Figure 5   Gender differences in the early years Home Learning Environment (HLE)
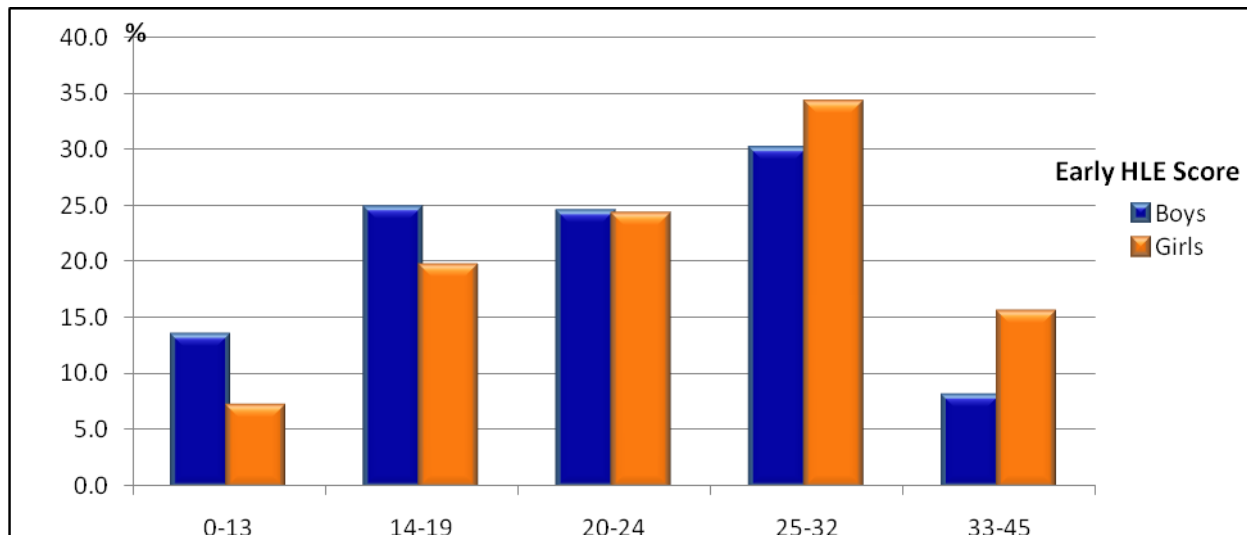
(Source: Siraj-Blatchford & Siraj-Blatchford, C4EO, 2009 based on EPPE 3-11)

5.2.3   The Home Learning Environment (HLE) during the primary years

Although activities such as reading together and playing games remain important, as children get older the nature of these activities changes, for instance from picture book reading by parents to the parents listening to the child reading books out loud, board games, computer activities and to outdoor activities such as organised sports or educational visits to museums. Differences between SES groups seen in the early years HLE persist as children get older and the characteristics of the home learning environment (HLE) shift to include more school related activities (Bradley, 2002; Bradley et al., 2000; Feinstein et al., 2008; Parke, 2004). These kinds of activities were very common in the high SES families with children who were succeeding as predicted, but also in most of the high SES families with children who did not do as well as predicted.

5.2.4   Effective Home Learning Environments (HLEs) in low SES families during primary years

In contrast to what is usually found for low SES families, informal learning activities that support children's academic achievement in school were mentioned for all twenty-one of the children from low SES families 'succeeding against the odds'. Many of the low SES families went to the trouble of saving up for a family holiday or were supported with loans or donations by relatives or friends. Although family outings and holidays were generally perceived as a way for the family to have a nice time together and to 'relax', parents and children often felt these experiences were helpful for their school and learning because it taught the child about other cultures, history, languages and sometimes about their cultural heritage. Families for instance went on outings to historical sites, to museums or to theatres. These parents expressed that they felt they were supporting their child academically by offering these experiences.

Just take them to museums and treats, they've been to every museum, they've done it. I mean their dad's gone to a lot of those as well in school holidays. 'Cause I think you can't just learn everything in the classroom.... I think that's important, I think it's good to have experiences out.... It just broadens your minds... so when you're asked to write a story you've got experience in this, you've something to write about, you've.... There's nothing worse than going back to school after the school holidays and they ask you to write what did you do in the school holidays. And it's like we used to nothing, go work for your mum as a job ehm... you would lie (laughing). And, and they can tell you lie (laughing) and you can suffer the humiliation. **Mother of Steven, boy, Group 1 (low SES, attainment higher than predicted).**

Although children from low SES families who achieved as predicted also went on family outings, these outings were less often educational and more often of a purely social nature, such as visiting friends and relatives.

Places like the zoo and parks and stuff like that, not like museums…no, 'cos they was never interested in that, the older ones weren't interested in that either so…. Yeah, more outside, sort of outdoors, bikes and things like that, picnics and that sort of thing. We used to go abroad to Spain every year, 'cos my family and I lived there. So we used to do the sun holidays over there every year. It was nice! Three weeks in the sun it was lovely. **Mother of Christopher, boy, Group 2 (low SES, attainment as predicted).**

Nearly all families with children 'succeeding against the odds' actively stimulated them to read. Parents took them to libraries, bought them books, would read books brought home from school and listened to their child read.

He's read every possible version of things like Robin Hood to compare which one he likes best (laugh).
Would you and he talk about that?
Yeah, cause I also enjoy reading kids' books... so he'll read a good book and he'll say: 'Mum read that, you'll love it', or, 'Don't read that you'll hate it'. We'd compare notes on it. Yeah, we would discuss a lot ... and my mother would have read most of them as well so... (laugh) he'd know a lot of outlets on that. He's definitely got a lot of books... I mean, he's one of the only teenagers I know who will actually go out and buy books for the fun of it. A lot of his friends look at his books 'What the hell, why have you got the book?' and he says then: 'Why haven't you got the book?' (laughing). I mean books are so much a part of our life that to have kids who sort of sit there and go 'You're strange, you read', you don't understand why they wouldn't want to. **Mother of Robert, boy Group 1 (low SES, attainment higher than predicted).**

For many of the 'vulnerable' children, reading activities occurred less frequently during the primary years. Particularly the 'vulnerable' low SES boys seemed to lose interest in books and instead were more interested in outdoor activities and computers. Many of these boys spent substantial parts of their out of school time playing computer games on consoles, which was often perceived as having a negative effect on them. For nearly all families who were part of the CFCS, personal computers became part of the household setup somewhere during the child's primary years. Again, for many of the low SES families buying a computer meant having to make financial sacrifices. These sacrifices were made because children and parents felt that having a computer in the home had offered the child playful opportunities to develop practical skills that were useful for school and work.

And I think she actually also started on a bit of the computer as well because of her older sister. Again, this was again something I believed in, that as soon as computer's came out and my oldest daughter, I knew that 'Yes, ok this is the right time for her to sit down on the computer and sort of start learning about computers' so I brought her a computer. Then at the same time obviously Anjali was growing up and she was doing bits a bobs, just basically playing games, and then when she grew up and she demanded her own computer, and I said: 'Ok fine, fine', because looking fifteen, twenty years ahead, …this is what life's gonna be, y'know, full of these youngsters basically at a desk and computers. Anjali was fortunate to have a computer in her room as well, so they both had a computer each and she is very good with computers…as we speak…so it's always sort of been my encouraging. **Father of Anjali, girl, Group 1 (low SES, attainment higher than predicted).**

5.2.5   The Home Learning Environment during the secondary years

What constitutes an effective home learning environment, again shifts further away from shared activities to facilitation of the child's experiences in additional microsystems, such as peer groups, religious communities or sports clubs in early adolescence (Bradley et al., 2000). The goal for adolescents is to emerge as healthy, well-functioning adults that can meet the requirements of society and effective home environments facilitate this process (Bradley et al., 2000; Steinberg et al., 1991). They can achieve this by developing the ability to form meaningful attachments to others, a positive and coherent sense of self, learn to make informed decisions, attain skills to successfully participate in institutions such as school or work environments and to develop a value system that forms the basis for socially responsive participation in society (Steinberg et al., 1991). An effective home learning environment for children in adolescence provides a healthy physical environment, learning materials (such as books, a library card, access to a computer) and a variety of experiences (for instance cultural or sports outings, visits to relatives, shared meals) (Bradley et al., 2000). After the children in the CFCS sample started secondary school, activities with family members were mostly limited to television watching, meals and the occasional shopping or cinema outing and holidays. Across high and low SES families, parents and children felt that the frequency of these shared activities was not very high. This was not something they regretted or worried about, but seen as the natural course as children matured. When asked about the things they now did as a family, 15-year-old Imogene answered:

We don't go to so many art galleries any more but I think that's because we're so busy at the moment cause we, we're all a lot older, we do a lot more by ourselves. Obviously my brother and sister are at University so we don't see them as much. We still go on walks, we go to the park quite a lot. I think we're left to our own devices more, which is nice, you know. The day is so busy normally that the only time you get to talk about that kind of thing it's when you actually sit down and you're forced to sit down and talk about it, you know. I think also because we all work hard now every one's more tired, y'know? My mum she didn't use to work [when I was] in primary school, I'd come home and she'd be happy to sit down and talk about stuff, and now I get home later, my parents get home later and there's just not so much time, you know. **Imogene, girl, Group 4 (high SES, attainment as predicted).**

5.2.6   Effective Home Learning Environments during secondary years in low SES families

According to Bradley and colleagues (2000), the role of the parents during early adolescence is to regulate the child by setting boundaries (i.e. to computer/game console use and television watching), by discussing possible hazardous activities (e.g. drugs and alcohol abuse, sexual activity), or by giving the child household responsibilities (cf., Mounts, 2000). Many parents felt that the regulating aspects of their child rearing practices played an

important role in their children's school success. When asked about the reason for her daughter's school success, Leanna's mother answered:

> *Because, basically when she comes home, I do not let up on her. I do exactly the same thing as she did when she was at primary school. She has to do her homework… she has to do her chores around the home. I do give her free time… and…. I don't think I put much pressure on her. Maybe if you ask her she may say something else but…. (laughs), I think that is it.* **Mother of Leanna, girl, Group 1 (low SES, attainment higher than predicted).**

Examples of such regulatory behaviours were given for nearly all girls (i.e. 10) and half of the boys 'succeeding against the odds'. Generally, regulatory activities were hardly mentioned for low SES boys who were attaining as predicted but were to some degree for the girls in the same group (Group 2: Low SES, predicted attainment). In many low SES homes, particularly with successful girls, household chores were seen as a necessary part of the child's daily life. Having chores was seen as a way to teach children responsibility for their own needs, but also as a way to prepare them for their future life at college or in marriage. Particularly among families with African or Caribbean heritage, children were expected to contribute to family life by doing laundry, vacuuming and cooking.

> *[He did those chores] because, I wasn't (laughing) going to be a slave…which now sometimes I feel like as if I am. It's important for him to have the jobs because he needed to grow and to fend for himself and learn how to care for himself and how to live and basically. If you give a man a fish he eats for a day, but if you teach him to fish, he'll eat for the rest of his life… and this was the life skills that he'd need, for the rest of his life.* **Mother of Jarell, boy, Group 1 (low SES, attainment higher than predicted).**

Many of the high SES parents, regardless of their child's attainment, felt that they had not done well with regard to making chores a regular part of children's lives. Most commonly mentioned reasons referred to them just being tired of having to negotiate the chores time and time again. They often added that there had not really been a need for the children to do these chores and that they would have plenty of time to develop these practical skills once they matured. However, talking about what was going on in the lives of their children and educating them about sex or drugs were regulatory activities that many of the high SES parents frequently provided. While such activities were far less often mentioned for low SES families with children succeeding as predicted, many of the low SES families with successful children, for instance, regularly held family meetings in which they discussed how each family member was doing and negotiating necessary changes in children's behaviour and activities.

> *We just, we just sit down. We have what we call family meetings. We all just sit down, we just switch off tellies, switch off radio, sit down and talk. I think at some point Dad introduced that egg timer. So we'll take the time out, turn it over, talk to which ever member of the family you wanna talk to, whatever you wanna talk about.... All of that five minutes or however long that is. Generally we will have a kind of 'brain pick' with just the four of us or five, if the cousins around, just to sit down and talk through things: 'We don't like this, we don't like that, we don't want you doing that, this is what you're good at, this is what you're getting better at, this is what you've been doing that's great'. That's just it.*
>
> ***Why did you feel it was important to have that ritual?***
> *Well... in this day and age where no one has time for each other you're always just, you know... scattered around the whole place, every time. I mean for instance, now Dad is not in yet. By the time he comes in it might be getting ready to go up to bed and things like that, so, I think it's very important that we have a kind of family time, if you like, be it thirty minutes or so, or an hour depending.*
> **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted).**

Through these kind of conversations parents were not only teaching their child about their values and beliefs, they were also exposing them to what Bernstein (1971) referred to as the 'elaborated code'. This type of language use is typically found in middle class families and in many ways is quite similar to language that is used in schooling. The elaborated code can stand on its own, it does not necessarily assume that the listener holds the same assumptions or understandings as the speaker and there for is more explicit, more thorough, and does not require the listener to read between the lines. This code is contrasted with the 'restricted code', typically associated with communications in working class families. The restricted code is suitable for insiders who share assumptions and understanding on the topic; it is shorter, condensed and requires background information and prior knowledge. By using the elaborate code in their interactions with their child, parents model the use of 'academic' language, and help their child to practice and prepare for the kind of communications it will, for instance, need to successfully write school papers. However, later studies into codes have contradicted some of these findings as being universal truths (Tizard & Hughes, 1984).

5.2.7 Family involvement with school and learning

In addition to informal learning experiences all the children 'succeeding against the odds' received practical support with their school and learning, mostly from parents, but in some cases also from siblings and other relatives. This kind of practical support with school and school related learning is commonly referred to in the literature as parental involvement. Parental involvement includes a broad range of activities that are situated in the home context or at school. Epstein (1992) defined two types of parental involvement: 'basic obligations' and 'involvement with learning activities at home'. *Basic obligations* include providing a home environment that facilitates the child actually doing their homework, such as providing a quiet space to work or materials such as books or computer software and interacting with school and teachers about homework (c.f. Sampson, 2007). *Involvement with learning activities at home* includes engaging in homework processes and tasks with the child as well as interactive processes supporting the child's understanding of homework.

5.2.8 Effective involvement with school and learning in low SES families

In the CFCS families with children who 'succeeded against the odds', *basic obligations* were met as parents provided access to computers and books as described above and often would make sure that the environment did not offer too many distractions such as television or loud conversations. Most parents attended school functions and parent evenings in school and in some cases they had additional meetings with teachers to resolve problems experienced by the child.

> *I think it was Year 2 or 3 and one of the teachers didn't feel that he was doing as well as he should have been doing and was questioning whether Shaquille could do any numbers or anything. And I thought, 'Well he's been counting for ages', and I knew some of the stuff that he was doing at home. He said: 'Well for example Shaquille can't count to seventeen' and I was really baffled by it. I gave Shaquille a couple of Maths and he answered it. Yeah, he probably was about seven, eight, I don't know why that was because everybody thought this teacher was very, very good, and he had a good reputation for being very good, but my experience was, because Shaquille, we would do work with him outside of school, I kind of got a sense of where he was at, and what the teacher was telling me about his ability, I just thought, I didn't believe that and once the teacher knew that , actually, he does learn something then that kind of was OK.* **Mother of Shaquille, boy, Group 1 (low SES, attainment higher than predicted).**

Involvement with learning activities such as engaging in homework with the child as well as interactive processes supporting the child's understanding of homework were mentioned for all successful low SES children. During the primary years parents and children generally felt that the degree of support parents would and could offer with school work was not just helpful, but also effective.

During secondary school, most of these parents kept on providing practical support with school and learning by supplying materials such as computers, books and revision guides. However, the actual help they gave the child with homework decreased strongly. Children less often turned to their parents for help either because they felt they did not need the help or because they felt their parent's wouldn't be able to help them. Parents themselves often felt they were no longer capable of helping the child with their school work as they felt the curriculum had changed considerably since they had been in school themselves or that they had not been in education long enough for them to develop the skills and knowledge they actually needed to help. Nonetheless, they still took an active interest in the child's progression through school and tried to at least make sure the child did the necessary school work.

> *I don't [help]… No, because I am not very clever and I don't understand it. She will sort of show me her homework or I will sort of say to her, 'Are you doing your homework?' and, 'Yeah I am doing my homework mum'. Some things she will ask me for school, but 9 times out of 10 she does it herself. Her textile books and that she will always show me, but like her English and Maths and that she always does it herself.* **Mother of Charley, girl, Group 1 (low SES, attainment higher than predicted).**

Contrary to many of the parents of low SES children who attained as predicted, the low SES parents of children 'succeeding against the odds', did continue to monitor homework and communicate with the school about the child's progress and to encourage the child to do the work. If parents could not provide the necessary help to solve a problem they encouraged children to solve the problems they encountered by going on-line to consult websites or friends or wait until they could ask a teacher for help. That is, they continued to encourage their children and to offer emotional support.

A meta-analysis of forty-one studies among urban primary school children in the United States (Jeynes, 2005) found the extent to which parents read to their child to be the strongest predictor among parenting practices. A much smaller effect size was found for the extent to which parents communicated with their child about school activities and reported a high level of overall communication. A third commonly included measure, homework supervision, did not have any effect at all. However, a review of studies examining the reasons for and effects of parents' involvement with homework in primary and secondary school revealed that other types of involvement that go beyond simply making sure that a child has done the assignment and checking for mistakes, does influence student outcomes through modelling, reinforcement, and instruction (Hoover-Dempsey et al., 2001). This review indicated that if involvement with homework was characterized by parental behaviours aiming to enhance the child's understanding of homework and of general learning processes, their involvement was positively related to achievement and particularly to student attributes such as attitudes towards homework, perceptions of personal competencies and self-regulation abilities (cf. McNeal, 2001). This type of parental behaviour aimed at enhancing the child's understanding of homework and the general learning process could be seen in the way parents and in some cases siblings and other relatives of the majority of the successful CFCS children (8 girls and 6 boys) supported the child emotionally by showing an interest in their school work, stressing the importance of

school for the child's future and by encouraging the children to apply themselves to homework, lessons and tests.

> *I liked school. Except when I argued with friends but everyone has that... it is just normal things happening. They used to say that if I came and said I hated school that I'd just have to accept that. You have to persevere, you can't leave school. You just gotta go to it no matter what and like they would just help me and push me further, but not like push push me, just like encouraging me.*
>
> ***Do you think these talks were important for you?***
> *Yeah because I never felt like I was under too much pressure to do well and I always tried my best and I realise that my best will be good enough.* **Natalie, girl, Group 1 (low SES, attainment higher than predicted).**

Similar effects of parental involvement on achievement were found for early adolescence with a meta-analysis of fifty studies (Hill & Tyson, 2009). This meta-analysis showed no effects of assistance, supervising or checking of homework but positive effects from involvement that reflected academic socialization (i.e. involvement that created understanding about purposes, goals and meaning of academic performance and provided strategies for the student to use). The importance of the level of involvement is illustrated by the findings of Sheldon and Epstein (2005) that Maths achievement was positively associated with homework assignments that required the student to discuss the mathematic skills with a family member and with the provision of Maths game packets for home use.

For children from low SES families who were doing as predicted, this kind of support was far less common. Many of these parents felt unable to provide support with homework as they did not feel they had the necessary skills. In these families it was often left to the child to find alternative help from teachers or peers. These parents displayed a form of helplessness and were unable to encourage their children.

> *Sometimes he'll come home with homework, and I'll ask: " What's that then?" He'll explain to me and, my god, we never done that when we were at school, the way they do they Maths and everythin' it's all totally different. It's like, I can see that they're doing Maths, like the way they do that, like the sums now, haven't got a clue, we used to just gets adds and take away, times and divide, never end up with these big sum like that, and you think, 'How do they do all this?' We had to just write the answer…sort of, quick little sums.* **Mother of Richard, boy Group 2 (low SES, attainment as predicted).**

5.2.9 What characterizes low SES parents of children 'succeeding against the odds'?

What the low SES parents with children who 'succeeded against the odds' effectively did was create a home environment with clear goals towards which they directed the socialization of their child. They provided activities to reach these goals and they did so in a family climate that prioritised relationships and was emotionally supportive (Darling & Steinberg, 1993). They were actively involved with their child's learning within the family context: they provided stimulating home learning activities and became actively involved with the child's learning process in school. When they felt they lacked necessary practical skills to support the child with a task they still managed to encourage and support the child emotionally. They managed to do this because they believed in their ability to positively affect their child's development and because they were willing and able to use their own experiences with education in this process. As such they were modelling attitudes and behaviour that communicated to the child the value and importance of school and education.

From the examples provided above it becomes clear that the parenting style of those parents whose children are 'succeeding against the odds' and of those parents of successful high SES children, have many of the characteristics of the *authoritative parenting* style in Baumrind's typology of authoritative, authoritarian and permissiveness styles (1978 in Steinberg & Morris, 2001): the parents are emotionally supportive, have high standards, grant autonomy at appropriate moments and use clear bi-directional communication with the child (see for instance Bradley, 2002; Bradley et al., 2000; Darling & Steinberg, 1993; Steinberg, 2001; Steinberg & Morris, 2001). A review of the literature on parenting styles and adolescents' school achievement indicates that adolescents' actual school performance, adjustment to school and psychosocial maturity benefit from having parents who are *authoritative*: warm, firm and accepting of their needs for psychological autonomy but demanding (Steinberg, 2001). A large scale study among a socio-economically and ethnically diverse sample of adolescents in the US revealed that the positive association between authoritative parenting and educational achievement transcends distal family characteristics such as ethnicity, SES and family structure (Steinberg, Mounts, Lamborn & Dornbush, 1991). The study showed that adolescents, whose parents were accepting, firm and democratic earned higher grades in school, were more self-reliant, reported less anxiety and depression and were less likely to engage in delinquent behaviour.

In the interviews with parents and children from the CFCS who were 'succeeding against the odds', many examples of *emotional support* from parents are provided. Parents for instance encouraged the children to do well in school, gave them positive feedback on achievements and behaviour without pressuring them and talked to them about social-emotional issues.

> *He was always confident, he was always, his reading and writing, for me he did that fairly early, with his talking so, we all used to say how clever he was and I think that he really grew from that and he liked to feel good, that someone was telling him how good he was and what he did.* **Mother of Shaquille, boy, Group 1 (low SES, attainment higher than predicted).**

These parents felt they needed to provide the children with regulation by *setting clear standards and boundaries for behaviour* (Bradley et al., 2000), particularly by offering verbal explanations.

> *I think it's me giving her the freedom to play with her friends, not being very strict and that, although I did have sort of strict guidelines to say, 'Look, if you're gonna go out with your friends, you need to be back at this time. If you're going outside the house I wanna know where you are'…right. So that worked over the years. I don't really believe in shouting at children, don't believe in hitting them, I don't think I've ever hit you have I? How old are you now, you're coming up to sixteen years old, probably smacked her bottom or something for being naughty, but I believe that if a child is doing something wrong, and to punish them is to obviously say not to do it again and give them something to do that they realise, that, 'Oh if I do that again I've got to do this, this and that'…you see what I mean, so I punished her in that way….* **Father of Anjali, girl, Group 1 (low SES, attainment higher than predicted).**

As children matured parents also *granted the child more autonomy* with regard to school and choices about education.

> *Whereas before they [mum and dad] were very sort of involved in helping me choose, they sort of, they've started to back off a bit as time's gone by as I've got older. So ... letting me make my own decisions. I mean my mum still advised me [for my GCSE subjects] but ... at the end of the day I've chosen. I suppose I enjoy this sort of freedom to make my own decisions eh... I do like other people making them for me, it's sort of easier but ... ... ehm ... ... yeah. Yeah I know it is [important] 'cause when you grow up and you know, they're not always there. You've gotta make your own decisions.* **Steven, boy, Group 1 (low SES, attainment higher than predicted).**

The parents had *high expectations* for their child and made their child aware of these expectations. These expectations referred to school work and the way children behaved in class, but also to their future education and working life.

> *I mean, not now but I used to say to her, I said: "Anjali, with the brain you've got, you can run this country," (laughs).... But we got a very good talk didn't we? "What you wanna be, where do you wanna be?"... because her sister's graduated.... Now Anjali's own thinking is quite bright and quite sort of spread out. She knows what she wants in life, to have that she's got very good goals. I said to her "Look, what you wanna be?" She said "I've decided, I wanna be a barrister", "a what?" I didn't even know what a barrister was. "Oh one of them who wears wigs and courts and they're really high up". "Well why do you want to be a barrister?" "Oh, because...". She gave me her own reasons, which were damn good reasons. I said: "Ok, that's fine, if that's what you wanna do, then I'll support you, yeah, no problem".* **Father of Anjali, girl, Group 1 (low SES, attainment higher than predicted).**

Perhaps the most obvious difference between the low SES parents whose children 'succeeded against the odds' and those whose children attained as predicted, was their strong sense of responsibility for their child's learning and development and their valuing of education. Contrary to many of the parents of the less successful children, these parents felt they had to and could play an active part in their child's development even when the child was often spending more time in school than at home. They generally felt that schools and teachers did whatever they could but that ultimately it was up to them as parents to help their children become the best they could. In other words, these parents had a *sense of self-efficacy*, they believed in their own capabilities to organize and execute the courses of action required to manage their child's education (Bandura, 1995). Ife's mother for instance said she felt that school had done all it could to help her daughter reach her potential as Ife had left primary school with her predictive grades. When asked: "What about reaching beyond her predicted potential?" she answered:

> *Ummm, that would be something that we've always thought was our own jobs rather than the school. The school can only do so much, but we're supposed to put the extra input into it. We normally try to do that, we try to push her as much as we could bearing in mind that we have to be a bit careful about the pushing and so.... Ummm, when we do homework with her, I don't do the Maths, 'cause I'm not very good at Maths. Dad does Maths with her and Dad would say to her, "So you've done that already if you can do these ones", and of course we have all educational books and things like that that we bought with her, we go through with her, things like that.* **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted).**

This sense of efficacy with regard to educational success seemed to lead to effective parenting practices that helped children progress through school and supported them in achieving high grades. These children (Group 1: Low SES, higher attainment) managed grades that were similar to those of the successful high SES children and it might be that these parenting practices, in turn, are reinforced by the child's success.

For the low SES parents with children who were achieving as predicted, this kind of belief in their ability to help their child succeed and awareness of the importance of their support was less often expressed.

> *Well, I suppose you could say in a way I didn't really [get involved]. Because I probably feel that all the support comes from the school, I thought like that way really. Not that I was not there but probably as I got more involved… as I didn't with Tremaine.* **Mother of Tremaine, boy, Group 2 (low SES, attainment as predicted).**

Self-efficacy with regard to their children's educational experiences was perhaps even stronger among high SES parents. The high SES parents of children with learning difficulties all organized private tuition for their child. Typically, high SES parents made sure their child was prepped for National Assessments, that they could take the 11+ exams to get in to the best state schools or private schools, and that they thought about life after A-levels. Despite the fact that Imogene had always been at the top of her class, her parents had provided her with private extra tuition at the end of primary school:

> *Because, I mean, at that stage a lot of kids in North London do that, at that stage before the [SATs], cause a lot of them are moving from the state sector to the private sector say, so they need to... well they need to learn a different way of doing things and they need to up their game a lot of them, like, getting into somewhere like the place she's at now... you know quite challenging entry tests.* **Mother of Imogene, girl, Group 4 (high SES, attainment as predicted)**

Their support with school and learning was in line with what Lareau (2003) described as their active *concerted cultivation* of the child.

EPPE 3-11 has shown that parental qualifications, particularly mother's qualifications are strong predictors for children's educational attainment up to the end of primary school (Sammons et al., 2008b). For CFCS children from high SES families the *educational experiences of their parents and siblings* usually provided them with examples that encouraged them to aim high. Many of these children had examples of people who went to University and it was often almost assumed that the child would go to University as well. When asked about her future after GCSEs and A-levels, Abby answered:

> *Then University, get a degree. I don't know [where], Cambridge (laughs), no...*
> **Have you visited any Universities?**
> *It was only because my Grandpa went to Cambridge, and he was showing us the bit where he was and it was really nice, I liked it and I've seen where my brother's University is, but I haven't been like, around.* **Abby, girl, Group 4 (high SES, attainment as predicted).**

Although such role models existed for children from low SES families, they were far less common. For instance, only one low SES parent had a University degree at the start of the EPPSE project. Furthermore, sixteen of the thirty-five mothers from low SES homes had no qualifications, (i.e. 65% in the less successful group compared to 40% in the 'succeeding against the odds' group), compared to only one of the fifteen mothers from the high SES families. For many of the low SES parents school had been a negative experience and they had left as soon as they could. For some, continuing in education simply had not been an option. These parents often used themselves as negative examples, to encourage the child to do better than they did. Brenda's mother left school at 16:

Well, I say to them, "You want to get a good job at the end of it. You don't want to end up like your dad". You know the postman and postwoman. But you know, if you want to do something, anything in your life, you've got to do something that you enjoy doing. Then if you've got more or less the qualifications, you can more or less go into anything. When I was at school, you could literally walk out of school, get a job, not a good job, but you could just go from job to job, and that's what we did. I can't remember anybody from my school ever going to University. I think a couple went to college but nobody ever really, you know, they never encouraged you. I know it was just a case of the teachers had to be there, we had to be there, and we eventually left. **Mother of Brenda, girl, Group 1 (low SES, attainment higher than predicted).**

In quite a few of the families with children 'succeeding against the odds', parents were spurred on to help their child by the difficulties they personally experienced during their school years:

> *Even then, when I went to study [as an adult], it was, "Well you should leave it to people who know what they're doing", it was always that kind of... and it raises its ugly head with me as well. So it was why, when I saw especially in my children they are so much brighter than I was, that's where I was coming from encouraging them. You know I lacked encouragement. You have doubt anyway, you don't always feel that you're good at everything all the time, it's natural to think you want to strive for better. So that was my experience at school so I would say, you know, I didn't do as well as I could have done.* **Mother of Shaquille, boy, Group 1 (low SES, attainment higher than predicted).**

These parents used the adversities they had experienced as an example for their children, encouraging them to excel beyond what they had achieved. Many of them worked hard at continuing their personal development through work related courses, NVQs and academic degrees. Particularly for those parents who had received their initial schooling in countries outside of the UK, these further qualifications brought them important personal knowledge about the British educational system and the necessity of qualifications in the UK. The parents had often made considerable steps on the career ladder. This personal development seemed to bring them confidence and they were aware of the valuable example they were setting for their child. Ife's mother, who grew up in Nigeria and moved to the UK in her early twenties, had a career in nursing and was now Head Nurse of an Intensive Care Unit. When asked what influence her and her husband's job might have had on their daughter, she answered:

I think that it's very important. I think that's very important for any child. I think it's a kind of a positive influence. It's what you see... I used to have neighbour who didn't used to work 'cause she had health problems and her daughter at age 14 wanted to have a child. And then she said to me, "But can you please talk to her?" and you know, she's helpless. And I did sit with her and I said: "Look at me, I'm like, your mum's age, I've got the job, I've got the house, I've got a car. Do you want that or do you wanna just be on the streets, only 16 with a child on your hands?" And she said, "Oh, yeah, definitely, I definitely want that". I found that she felt that it was much better than just sitting down there, but I've always known that anyway. It's one of the reasons why I decided I wanted when my children start school, that I'm gonna go to work because, I don't want them thinking that it's the norm, an' that mum's don't do anything. Mum's do it if they can. **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted).**

Although such examples of personal development were also found in the low SES homes with children achieving as predicted, they were less common.

5.3   The pre-school environment

The EPPE research has shown that pre-school education can help to alleviate the effects of social disadvantage and can provide children with a better start to school (Siraj-Blatchford & Sylva, 2004; Sylva et al., 2006). The final report of the first phase of the study (Sylva et al., 2004) provides an extensive overview of how parent's choices regarding pre-school affect their child. For instance, pre-school experience, compared to none, enhances all-round development in children at entry to primary school and children attending pre-school before the age of 3 show better intellectual development. However, full-time attendance led to no better gains for children than part-time provision. All but two children in the CFCS (a boy and a girl with Asian heritage from Group 1: Low SES, higher attainment) had participated in some form of pre-school education.

5.3.1   Effective pre-school settings

By extending the EPPE project's quantitative data with qualitative data on pre-school settings, the Researching Effective Pedagogy in the Early Years (REPEY; Siraj-Blatchford & Sylva, 2004) research has shown that the most effective pre-school settings (in terms of intellectual, social and dispositional outcomes) achieved a balance between the opportunities provided for children to benefit from teacher-initiated small group work and in the provision of freely chosen, yet potentially instructive play activities. The REPEY study also showed a positive association between higher scores on dimensions of pedagogic practice such as curriculum differentiation and matching in terms of cognitive challenge and 'sustained shared thinking' and its effectiveness. The most effective settings adopted social/behaviour policies that involved staff in supporting children in rationalizing and talking through their conflicts (Siraj-Blatchford & Sylva, 2004). The final report on the primary phase of the EPPE 3-11 project showed that the benefits of pre-school education largely persisted through to the end of Key Stage 2 (age 11), particularly for children who had attended high quality pre-school settings (Sylva et al., 2008). The EPPE project showed that good quality can be found across all types of early years settings but overall, quality was higher in settings integrating care and education and in those prioritising educational experiences such as Nursery Schools (Sylva et al., 2004).

Nearly all Child and Family Case Studies (CFCS) parents had positive perceptions of the pre-school setting(s) their child attended. In most cases this was warranted by the formal quality assessment conducted by EPPE (for further details about quality indicators see Sylva et al., 2004; 2006). The majority of CFCS children attended pre-school settings that provided medium quality experiences, i.e. quality ratings were average, mostly Local Authority Day Nurseries. Although none of the children from high socio-economic status (SES) families were enrolled in low quality centres, only two high SES children attended high quality centres. However, half of the boys and two girls who 'succeeded against the odds' attended high quality pre-schools. Of the 'vulnerable' children (Group 2: Low SES, predicted attainment; Group 3: High SES, low attainment) only one boy and three girls attended a high quality setting. Nine of these eleven high quality pre-schools attended by CFCS children were nursery classes, the other two were Local Authority Day Nurseries. So the majority of high quality settings were from the maintained sector, led by graduate teachers. Despite the overall positive perception of the pre-school settings by parents and children, the pre-schools were not always formally evaluated positively. Five out of the ten boys from low SES families who would achieved as predicted attended low quality pre-school centres. All low quality settings attended by CFCS children were Playgroups.

5.3.2 Reasons for pre-school attendance

During the CFCS interviews the parents were asked why they had enrolled their child in a pre-school setting and what they felt their children might have gained from attending a pre-school. Both of the families whose children did not attend had initially tried to get a pre-school place for their child, but either none was available or it was too complicated to combine logistically with the family routine. However, both mothers felt they had provided their children with sufficient educational experiences at home to prepare their child for starting school. They had for instance helped their child practice the English alphabet, and both children had an older sister who would help them. For almost all parents, the question had not been if their child would attend a pre-school but rather when they would start. Particularly for low SES parents pre-school was just something children automatically enrolled in at a certain age:

> *It's just a thing that you had to do, you had a go to pre-school. He had to go. Everybody had to do it.* **Mother of Richard, boy, Group 2 (low SES, attainment as predicted).**

For working mothers some form of childcare was necessary during work hours. For the (low SES) mothers who stayed at home pre-school was often a way to get a break from their role as full-time parent and to give them time to deal with difficult family circumstances. The majority of parents, regardless of their SES, felt that pre-schools offered children the opportunity to learn to socialize, a skill that would help them once they started school. However, parents with successful low SES children and high SES parents also stressed the importance of pre-school for preparing their child for the more intellectual side of school. In their opinion, pre-school offered a chance to get used to school routines and rules and provided opportunities to further develop basic literacy and numeracy skills. The low SES parents of children 'succeeding against the odds', in particular, felt that pre-school offered their child something in addition to what they at home were able to offer.

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).**

Parents, and to some extent students, from the successful low SES group looked back on the pre-school period as a positive experience that had been valuable for later academic achievement. For the majority of the girls and nearly all boys references were made to how the pre-school setting had helped them develop socially, cognitively and in some cases had helped them develop a positive attitude towards school and learning.

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).**

They were happy about the way the pre-school setting communicated with the parents but even more so they mentioned the pleasant atmosphere created by staff that made children feel at home and provided them with a wide range of playful learning experiences.

This positive perception of the value of pre-school education might have been indicative of a more general positive attitude to school and learning. Although parents often chose to enrol their child in a particular setting for pragmatic reasons such as convenience or availability and costs, they did evaluate the suitability of the setting. They did not, however, actively select a particular pre-school with the aim of getting their child in to an affiliated primary school as was the case for quite a few of the high SES parents. As such, these high SES parents showed 'concerted cultivation' child rearing as they were already carefully planning the educational career of their child trying to make sure that the best schools would be available to their child (Allatt, 1993; Vincent & Ball, 2006).

Yes his brother had not been able to get into it and had gone somewhere else and then got into Bury at the Reception class… hmmm so yes it is obviously because his brother was there it was easier and the two at the same place and it is a very popular school. Because of the Head Mistress I think really– she has quite a strong personality and you know, it's kind of oversubscribed hmmm quite you have to live quite close in the catchment area and John just got in and then just because Alex was in the Nursery class did not automatically mean we will get a place in reception but he did and I think you know, by that time we established kind of a relationship with other parents of kinds…. **Mother of Alex, boy, Group 3 (high SES, attainment below prediction).**

5.3.3 The importance of pre-schools and the early years HLE for later attainment

The EPPE analyses of attainment outcomes at age 11 pointed to the benefits of medium and especially high quality pre-school (Sammons et al., 2008a; 2008b). In our CFCS sample, which is large in number of case studies but modest in terms of general representation, it appears that the importance of high vs. low quality pre-school settings seems particularly important for low SES boys. First of all, these boys appear to have a greater chance of enrolling in a low quality pre-school setting than boys from more 'well-to-do' families and girls from equally disadvantaged backgrounds. Secondly, when boys from disadvantaged families do find themselves in an excellent pre-school setting they seem to experience long-term benefits as all these boys went on to 'succeed against the odds'.

The EPPE research also showed important interactions between pre-school and the early years home learning environment (HLE). In particular, it showed that 'home' children (those with little or no pre-school experience) who had a low early years HLE had the worst outcomes of all children in the sample, while high quality pre-school offered some protection against the adverse effects of a low early years HLE (Sammons et al, 2008a; 2008b).

In our modest case studies sample we found that, unfortunately, few low SES children (i.e. 3 girls) have the combined benefit of experiencing a highly favourable early years HLE and excellent pre-school education (Melhuish et al., 2008; Siraj-Blatchford, 2010). One of these girls was Fareeda who was part of Group 2 (low SES, as predicted) but whose trajectory showed a steady increase in ranking from the lowest 30% to the top 20% by age 14. However, we did find that overall the combination of early years HLE and pre-school effectiveness seemed more favourable for low SES children who 'succeeded against the odds' than for less successful low SES children. While only one girl 'succeeding against the odds' had the disadvantage of a low early years HLE combined with a low quality pre-school experience, this combination of low quality was found for four low SES boys who attained as predicted. Furthermore, ten successful low SES children combined medium or high quality pre-school with a medium or high early years HLE (4 boys). This was the case for only five of the less successful low SES children (1 boy). This relatively high occurrence of medium or high home learning experiences with good or excellent pre-school experiences among the children 'succeeding against the odds', once again confirms the importance of the combination of good quality experiences in the home and the pre-school to help children 'succeed against the odds' of disadvantage (Melhuish et al., 2008; Sammons et al, 2008a; 2008b; Siraj-Blatchford, 2010). Furthermore, it seems that for low SES boys, who generally have a greater chance of experiencing a low early years HLE, good or excellent quality pre-school settings function as an important 'protective' factor (Sammons et al., 2007a; 2007b; 2007c; 2008a; 2008b).

5.4   School and classroom microsystems

Although choices for formal schooling are in some cases perceived as limited, for instance, as the result of living in a particular catchment area, parents do make choices for schools with particular didactical philosophies such as Montessori schools, for schools with religious affiliations, single sex schools or private schools, and sometimes even decide to move to areas with more suitable schools.

> ***Did you feel it was important for her to go to Christian schools?***
> *Yes, we thought it was. It was part of our own ethos and it was something that we strongly believed in. And believe that if we bring her up the right way and in that kind of environment: good both for ourselves and her as well.* **Mother of Ife, girl, Group 1 (low SES, attainment higher than predicted).**

The importance of these choices for the child's learning experiences is illustrated by research that shows the association between certain distal, internal and proximal characteristics of the school and classroom environment and children's attainment in school. Children's classroom experiences for instance are less effective when the concentration of poverty in the school is high (see for instance Lee, Loeb & Lubeck, 1998; Pianta et al., 2002).

5.4.1 Primary school academic effectiveness

Using the analysis by Melhuish et al., (2006) that determined the academic effectiveness of all state primary schools in England from 2002 to 2004, the EPPE 3-11 research showed that pupils who attended an academically more effective primary school had significantly better outcomes for English and Maths, over and above child and family background. Not only was the effectiveness of the primary school linked to pupils' absolute attainment at age 11, it also predicted the amount of progress the EPPE 3-11 pupils made between the ages of 7 and 11 (Sylva et al., 2008; Sammons et al., 2008c). In the CFCS sample we found that the majority of children, both from low and high SES backgrounds, attended primary schools that had average to good academic effectiveness for both English and Maths. Simultaneous good academic effectiveness for English and Maths was rare for all four groups. Interestingly, the one high SES boy who did have this experience was dyslexic. His ranking trajectory showed a strong dip in English attainment from baseline (age 3) to Key Stage 1 (age 7). However, after this his attainment improved considerably. Although he was still below the high SES average at the end of primary (age 11), he continued his progression during secondary school and by Key Stage 3 (age 14) managed rankings around the mean of the high SES group. Although there were a few high SES children who attended a primary school that was less effective on one subject, it was only in the low SES samples that we found examples of children who attended schools that were substantially less effective for both English and Maths. Interestingly, four out of the five children for whom this was the case had managed to 'succeed against the odds'. However, when looking at their specific trajectories we could not see a clear pattern of regression during these years. Such a pattern was however visible for the one boy from the low SES sample who did not 'succeed against the odds'. In general, very few clear patterns of association could be discerned between primary school effectiveness and development of rankings on trajectories of the CFCS sample. It seems that in order to understand more about how primary schools might support children to succeed we need to consider a range of factors at classroom and school level.

5.4.2 School level factors

The one school level factor that seemed to most clearly set apart the CFCS children who 'succeeded against the odds' from those who were 'vulnerable', was the help they received from school when they were experiencing difficulties with academic subjects or behaviour. Although such difficulties were reported by respondents from all groups, the parents and children who 'succeed against the odds' felt schools had effectively helped them to deal with these difficulties, through booster, remedial, homework, revision or behavioural classes. These additional classes helped children to catch up with their peers and (re)establish and reinforce a positive perception of school and learning and of students' efficacy to deal with difficult situations. The 'vulnerable' children and parents on the other hand felt let down by schools and teachers. While some of the parents, particularly those from high SES families, had organised additional help for their child out of school, many felt frustrated and even angry with school policies and Headteachers for dealing ineffectively with their child. Tom was being sent home from school very regularly because of his behaviour. Tom's father felt the school policies were both ineffective and unfair.

To put it quite frankly, I think they run it [the school] like a boot camp really, and I think if some of the children are finding it difficult, their way is to send them home, send them home. Yeah, send them home. He [the Headteacher] did say, they don't want to see, they don't want to deal with the issue that's going on, they just want to send them home. **Father of Tom, boy, Group 2 (low SES, attainment as predicted).**

It seems likely that these negative perceptions of parents were to some degree transmitted to their children and in some cases might have reinforced a negative attitude to school and learning.

5.4.3   Classroom level factors

Commonly mentioned distal and internal characteristics of the classroom microsystem include classroom size, classroom age, class composition, language skills of the other children in the class, teachers' qualifications, beliefs that teachers have regarding the goals of education, and classroom curriculum (NICHD ECCRN, 2002; cf. Lee, Loeb & Lubeck, 1998; Pianta et al., 2002). For instance, studies including teacher demographics and teacher beliefs show that the frequency of engaging children in cognitively challenging talk, including early literacy talk, non present talk, personal narratives, and scientific talk, is positively associated with a strong pedagogical orientation towards literacy development and with higher levels of teacher qualification, but not with years of experience (NICHD ECCRN, 2002; Pianta et al., 2002; Smith & Dickinson, 1994).

The EPPE 3-11 research also shows that proximal classroom processes such as teaching style effect children's attainment. Observed quality of pupils' educational experiences during Year 5 (age 10) was significantly higher in classes where teachers closely adhered to the Literacy and Numeracy strategies. Although this influence of teaching quality on Reading and Maths outcomes at the end of primary school is stronger than the net influence of some background factors, such as gender and family disadvantage, influences of the early years home learning environment (HLE) and mothers' highest qualification level show stronger effects (Sammons, et al., 2008c). The Effective Primary Pedagogical Strategies in English and Maths (EPPSEM) in Key Stage 2 Study shows that, of the primary schools that participated in the EPPE research, the most academically effective primary schools with the highest teacher quality scores for classrooms were characterized by the fact that the teacher showed respect, social support and concern for pupils. The teachers made sure pupils' individual needs were recognized. The teachers established routines so pupils knew what was expected of them, conducted plenaries and used group work and peer tutoring. They also engaged pupils in dialogic learning and teaching and built on pupil's prior knowledge, interest's and experiences. During lessons they identified key learning concepts and lesson objectives and provided assessment for learning, questioning and feedback to class/groups/ individuals. Teachers also made cross-subject links explicit (Siraj-Blatchford et al., 2011 forthcoming).

A teacher's *ability to control the classroom* was also positively related with emotional and behavioural conduct of children that is associated with achievement (i.e. reduced 'Hyperactivity' and increased 'Pro-social' behaviour and 'Self-regulation'). Disorganized classrooms predicted poorer progress in both English and Maths and increased hyperactive behaviour in children (Sylva et al., 2008). The 'vulnerable' children in the CFCS in particular mentioned that they felt that the high amount of supply teachers, and the disorganized lessons that came with this, contributed significantly to their low attainment. EPPE 3-11 has further shown that good relationships between the child, teachers and peers in a class and children's self-reliance during lessons is an important influence on children's progress in Reading during the primary years. These quantitative research findings regarding the proximal classroom processes are confirmed by the qualitative CFCS data. School and teacher effectiveness research has drawn attention to the importance of an orderly school and classroom climate in promoting pupil progress and better academic outcomes (Teddlie & Reynolds, 2000; Sammons, 2007). The EPPE 3-11 research analyses of classroom practices in Year 5 classes using observational data shows that pupils made poorer progress in schools where classes scored highly on the factor 'Disorganisation' in classes. Inspection evidence has also drawn attention to the links between improvements in pupil behaviour and better academic results in schools that succeed 'against the odds' in high disadvantage contexts (Ofsted, 2000; 2009).

Students and parents from low SES families 'succeeding against the odds' as well as from successful high SES families attributed (part of their) success in school to the quality of their teachers. For instance, they thought that good quality teaching meant that teachers were able to explain things clearly, were enthusiastic about the subject they taught, were approachable when things were difficult to understand, were generally friendly, had control over the class and clearly communicated their expectations and boundaries.

> *They [my primary teachers] were always very approachable like we, we never called our teachers by their second names, it was always the first names which, which made it a lot easier to talk to them and I think because we had the circle times and stuff like that and because when we were working we weren't just taking notes from a board we were all discussing it and stuff. You really got thinking about it a lot more and if there were any problems there would be no hesitation. You'd just ask, you know, that it wouldn't be embarrassing (laugh).* **Imogene, girl, Group 4 (high SES, attainment as predicted).**

Martha's Maths teacher described how he perceived his own teaching style to help students do well:

> *Just the explanation at the start, again, you think how you're going to explain something, you emphasise the key points. You start off easily and graduate up in their level of difficulty. You ask a lot of questions. You get an atmosphere where they don't mind getting things wrong in front of a class, if you ask such and such what the answer is and they get things wrong, they don't feel like gutted, that's just fine, that's allowed sort of thing, and you allow pupils to ask you for when they're stuck and they feel happy to do that.* **Teacher of Martha, girl, Group 1 (low SES, attainment higher than predicted).**

When asked about her Maths teacher Martha said:

> *The best! [laughing] Oh, he made Maths really fun and he didn't have favourites, but he was nice to everyone...but er...I dunno he treated everyone like the same and he was just generally nice to people and he made loads of people like him, so that they enjoy the lesson more, which I think helped. 'Cos like mum said he's quite good looking for a teacher, which was annoying sometimes [laughing] but like, I think the more people like the teacher, the more, well any teacher.. .if you like the teacher you enjoy the lesson... well most of the time. If people were naughty, he'd send them out so they don't disrupt the lesson, but he'd still make them work, he wouldn't like just let them sit outside, he'd make them do work still... which I thought was good.*
> ***And you just said that he managed to make Maths fun? How would he do that?***
> *Well... he'd ask us like quite a lot like... if it was getting boring, and if someone said it was getting boring he'd just change the subject completely and he always did like... quizzes and stuff, like Maths quizzes and that made it quite fun.* **Martha, girl, Group 1 (low SES, attainment higher than predicted).**

With these teachers students felt they not only enjoyed the classes and could achieve the standards set for them but they could actually extend themselves beyond their predicted attainment.

> *I discovered I was like quite good at Maths like, in like Year 8, Year 9, 'cos I've got a really good Maths teacher and like he's proper friendly and he's always helping me out with stuff like… If I need extra help on homework he'd do it for me… so he's a good teacher.* **Rajnesh, boy, Group 1 (low SES, attainment higher than predicted).**

These children generally described having positive relationships with at least some of their teachers. They felt they had learned most from teachers who had been knowledgeable on the subject, who could and would use interactive teaching strategies and who made learning a pleasant experience. Wider research on effective teaching has demonstrated the importance of teacher behaviour as an influence on pupil progress and suggested that school and teacher influences may be especially important for disadvantaged pupil groups (see Scheerens & Bosker, 1997; Van der Werf, 2006).

5.4.4 Peer relationships

The review of research on adolescent development by Steinberg and Morris (2001) shows that peers tend to choose friends with similar behaviours, attitudes and identities. They influence each other's academic and pro-social behaviour because they admire and respect each other's opinions. A study of 900 students entering middle school showed that how well friends do in school has a substantial effect on students' grades and academic self-efficacy (Cook, Deng & Morgano, 2007).

The children in the CFCS offered explanations about the mechanisms through which peers affect attainment. For the successful children, peers, especially their friends, offered practical and emotional support. The emotional support helped them to enjoy school and to deal with any difficulties they encountered. Practical support was often mutual as children helped each other out during lessons and with home work and revision. Not only did this offer children opportunities to take on the role of teacher, it also provided them with opportunities to deepen their understanding of subjects either by rephrasing the teacher's explanations to clarify things for their friends or by receiving alternative explanations from their friends. These experiences seem to have contributed positively to children's positive self-perception, sense of efficacy and use of effective learning strategies. A study into self-esteem trajectories among ethnic minority low income adolescents in the US provided evidence that supportive family and peer environments are particularly important contributors to psychological well-being (Greene & Way, 2005). Mark talked about how having competition with his friends in class helped him do better in school:

> *Just building me self-esteem, and stuff like that.*
> **How does having good self-esteem help you to do well in school?**
> *Just, more mature, like, and get more work done instead of faffing on, stuff like that.*
> **Mark, boy, Group 1 (low SES, attainment higher than predicted).**

Friends also further reinforced the positive attitude towards school and learning of these children through their positive perception of education and stimulated them to be the best they could by providing positive role models and friendly competition.

> *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).**

Although some of the 'vulnerable' children from the CFCS experienced positive peer influences, these students often had friends and peers with negative attitudes to school and learning. When asked about encouragement for school and learning John remarked:

> *I don't…I don't necessarily get encouraged, but I mean I know my best mate over the road, he's meant to be really smart, well he is really smart, and he's been getting in a lot of trouble at school and being sent home and stuff. I've tried encouraging him, but I haven't, apart from sort of mum and my stepdad now and again, I haven't really had any encouragement about it.*
> **What about discouragement?**
> *I think you get that all the time. Just idiots around school. You get the paper throwing around the classroom, which is distracting, you get, like I said, loud noises and stuff like that, I just think, I think it happens every day, to everyone.* **John, boy, Group 2 (low SES, attainment as predicted).**

They also seemed particularly 'vulnerable' to negative influences on their behaviour in school and in class.

> *I think on the whole he probably got into [trouble] because, people, kids there would dare him, because he's reached the age, where as he was really tall for his age, there was always challenge for him to fight or get into arguments…and I don't think he knew how to deal with that, and he wouldn't ask for help…to deal with it, he would more or less deal with it himself… so yes he did [get suspended].* **Mother of Tremaine, boy, Group 2 (low SES, attainment as predicted).**

5.5 The community context

As children mature the range of proximal process experiences extends more and more beyond the immediate context of the family, for instance through participation in extra-curricular activities and classes (see Bardley & Corwyn, 2002; Bradley et al., 2000; Parke, 2004; Rogoff, 1993; Rogoff et al., 2003; Steinberg et al., 1991). These experiences are generally regulated by parents, as they usually are the ones to facilitate these activities. For example, by paying for them or providing transport, but also by allowing the child to partake in these activities or by encouraging participation or even making it mandatory. Extra-curricular activities provide children with opportunities to experience and experiment with different roles, for instance that of leader or expert when participating in discussions during religious classes, when playing computer games with their friends or when earning merits and certificates as part of music classes or Cadet programmes. These activities allow for expertise development while simultaneously supporting aspects of identity development such as sense of belonging in a community, feelings of competence and interest development (Barron, 2006; Rogoff, 1993; Rogoff et al., 2003). For children from high SES families, extra-curricular activities, such as dance classes, private music tuition and sports activities were simply a given. All of these children participated in a number of such activities and had done so from a young age and in nearly all cases these activities were paid for privately. Laurie had been taking dance classes ever since she was 2 years old. At the age of 16 she was taking dance as part of her GCSE's. Laurie was one of the high SES children who were failing to meet the predicted attainment.

Laurie said the following:

> *Erm, I think it [dance] lets me express myself in like the best way I can, because I love doing it. It comes quite naturally, and it's really good to have like a subject that's like a hobby and you really like it, and it's really good to have something you like. Because, because for Dance, I won like an A star, and for Maths I'm on, well I'm on a G, and you can tell the difference between something I enjoy and like and something that I don't enjoy, it's just a really big difference like, of why I would want to do it and why I wouldn't want to do it.* **Laurie, girl 16, Group 3 (high SES, low attainment).**

5.5.1 Extra-curricular activities facilitated or stimulated by low SES families

The children who were 'succeeding against the odds' in the CFCS sample were widely encouraged and facilitated by parents to participate in extra-curricular activities. In most cases children participated in after school sports or music classes or joined organisations such as the Sea Cadets.

> *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).**

Some children attended classes or activities related to the family's ethnic-cultural or religious heritage, such as language classes, Sunday school or Qur'an lessons.

> *I think one, it's her background I mean our religion, and I believe and I have strong values that we shouldn't really forget our own language, keep Panjabi alive. I did encourage both of them to go to Panjabi classes, her older sister as well as Anjali when she was young, and they did attend Panjabi classes just to keep up the Panjabi, because it's something I didn't want them to completely loose and just be with the English language only. I think if you look, I think the more languages nowadays you know, the better person you are, the better opportunities you got outside as well, so it's something that I think any parents whose background is whatever, I'm sure they, deep down in their heart they do want their children to have the language perhaps they were born with or the parents were born with. Heritage, yeah.* **Father of Anjali, girl, Group 1 (low SES, attainment higher than predicted).**

In some families the parents in our sample did not necessarily feel they'd had a particular educational or developmental motive to provide these experiences, they just regarded these experiences as a normal part of life, something they themselves might have enjoyed and just felt their child might do as well. This was particularly the case in low SES families with children who were developing as predicted. In these families, and also in the high SES families with children who were 'vulnerable', children who wanted to stop participating in a class or activity were often not encouraged to give it another try when they lost interest. As the activity was mainly regarded as 'fun' or 'something to enjoy' and not so much as a learning experience, it was often left to the child to decide whether or not they wanted to join a class or to continue an extra-curricular activity. However, in many other families, particularly those with children who were succeeding, parents, and sometimes children too, were very much aware of the educational implications of these experiences and felt their child's development and perhaps even school achievement would benefit. As such, these activities seem to be part of the 'concerted cultivation' socialization strategy that is typically employed by middle class parents to help their children develop social skills and confidence from which they will benefit in later life (Lareau, 2003). According to Vincent and Ball (2006) "'Education' does not, for our middle-class parents, only describe what goes on in nurseries, schools and universities. Instead education is an all-encompassing engagement with the child. As part of this the children have access to a wide range of 'extra-curricular' activities, chosen from the options offered by burgeoning local markets" (p.137). However, our study shows that it is not only middle class parents who do this. Many working class parents are able to draw upon the social and cultural capital they know will benefit their child. Why they do this and how will be discussed in the following sub-section.

5.5.2   Additional support networks

Support networks of friends and extended family played an important role in the lives of many of the CFCS respondents. Similar to Lareau's qualitative study (2003) the CFCS found that extended family and kinship networks generally play a greater role in the lives of low SES families than in high SES families. Grandparents and aunts and uncles were frequently mentioned by low SES parents as having provided important practical and emotional support for parents. In the low SES families of children with predicted attainment these family and kinship networks did not seem to provide children with additional social and cultural capital that might help them do well in school. Many of these extended family members looked after the children when parents were at work, particularly in single parent households. In many cases family members lived close by. When asked if her and her son would spend time with their family, Richard's mother said:

> *All the time really, but we didn't have to go far because we're a close family and we're all like living in the street (laughs).*
> *Is this where you grew up?*
> *Yeah, I've always lived here.*
> **Mother of Richard, boy, Group 2 (low SES, predicted attainment).**

However, in the low SES families with children 'succeeding against the odds', family and kinship networks were also often mentioned as providing important practical support, but also as having provided additional learning experiences for the child, both through activities and through the example they might have set.

> *My Mum and Dad are very helpful to Charley. Because they want her to do so well and they are always encouraging her for things, and they have got her a place for her [work placement]. My Mum and Dad sorted all of that out for her, and 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).**

The pilot study with working class children from homes with a high early years home learning environment (HLE) who were 'succeeding against the odds' (Siraj-Blatchford, 2010) found that transnational family and kinship networks and relationships were particularly important for Caribbean families in terms of social and material resources (cf. Reynolds, 2006a; 2006b).

The CFCS found examples of such transnational relationships for families with Caribbean heritage but also for some of the Asian families with children 'succeeding against the odds'. Rajnesh's family would 'save up' so they could visit their relatives in India every three or four years.

> *I love going India though… Yeah…I love chillin' with like my Grandma and stuff, and just like talking about how school is and all that, and like we phone them every week…yeah…. They just ask like," how's like school", and stuff, and like, like…"Do you have homework?" and they make sure I'm doing my work…. Yeah, they're always asking if I've like, if I've grown like big and strong or whatever and I know they care about me… and I love like all my family in India.* **Rajnesh, boy, Group 1 (low SES, attainment above prediction).**

Particularly in families with Asian, Caribbean and African heritage, religious communities and spiritual leaders were mentioned as additional sources for emotional and practical support with parenting.

Although support from family members was mentioned by some of the high SES families, these parents more often mentioned their friends when asked who had supported them in bringing up their children. These high SES parents had generally less often needed practical support, but valued the emotional support their friends gave them.

> *I spend a lot of time with my friends and the children. We do a lot of stuff together. I suppose that it takes a lot of ability to raise a child. I think that we're alike and my friends are very good friend's and they're more like some sort of family, and especially the closest ones, wouldn't think twice about telling one of the kids off, whoever it was, if they were doing something wrong, or just picking one up and cuddling one up, and throwing them about, and, it just doesn't matter who the child belongs to, everyone jumps in, so in that respect we're like an extended family, who aren't related I suppose.* **Mother of Laurie, girl, Group 3 (high SES, attainment below prediction).**

Section 6: Conclusions

Children who 'succeed against the odds' manage to adapt very well to educational processes. In part, this is facilitated by their general ability for learning. However, what makes them stand out even more when we compare them to less successful peers is their apparent positive perception of themselves as learners, their appreciation for what school and education can bring them, and their willingness and ability to build and sustain meaningful relationships with the people around them that actually serve to facilitate their learning. These children actively engage with activities and people that can help them develop their skills and knowledge. For example, they read books for pleasure, join the Sea Cadets or Youth Groups, explain Math problems to their friends, feel encouraged by their friends' success in school, discuss their lives and interests with family members and turn to their teachers for guidance and help. They not only reciprocate offers from others to engage in learning experiences, but actively initiate these experiences; i.e. actively regulating their own learning process. As such, these children have learnt to be agents of their academic success.

Schools, teachers, peers and other adults can all contribute to children's chances of 'succeeding against the odds' of disadvantage by facilitating their adaptation to education. Teachers, who are capable, inspiring, and able and willing to meet the specific needs of their students, not only teach them as academics but contribute to their positive perception of school and learning. Peers and siblings can inspire high aspirations and help children do well by offering help with school work and by offering emotional support that reinforces positive perceptions of themselves as learners and of school in general. Adults, such as family members or members from their wider community, can provide practical help and encouragement that parents might not be able to give due to their financial situation or their limited experiences with education or the education system in the UK. All these people can serve as positive role models to which a child can aspire. By supporting children in these ways, these teachers, peers, siblings, family and community members become 'significant others' to the child, helping them maintain and reinforce positive perceptions of themselves as learners and of education as enjoyable and valuable.

However, the Child and Family Case Studies (CFCS) clearly show that parents in particular play a pivotal role in helping their child 'succeed against the odds'. Parents hold the key to many of children's experiences, not just through their own interactions with the child and their involvement with school and learning but also for the learning opportunities they facilitate through their choices about children's experiences in other microsystems such as schools, extra-curricular activities, community involvement and contact with extended family. Through their own behaviours parents set examples that show children how to behave appropriately but also of what to value and how to achieve goals. Through their own example children model, reinforce and facilitate successful adaptation to school and learning. In some ways the activities and experiences of these children and the beliefs of their parents are similar to activities that are typically associated with success in family life in middle or higher socio-economic status (SES) families and reflect the socialization pattern of 'concerted cultivation' rather than the pattern of 'accomplishment through natural growth' that is more common among lower SES families (Lareau, 2003). However, effective parenting in low SES families was by no means a mirror image of 'concerted cultivation'.

The children who 'succeeded against the odds' were definitely 'cultivated', in the sense that they were 'educated' and 'cultured' by their parents in a way that 'fits' the educational system. Their socialization experiences helped them to use the educational system to make the most of their potential and to extend their cultural capital. Nonetheless, this socialization

process of 'cultivation' in many respects was far less 'concerted' than in high SES families, and as such is perhaps better described as 'active cultivation'.

Partly, the childrearing practices of these parents were less obviously concerted because parents simply did not have the economic capital available to high SES parents, so they could not provide their children with the same amount of private tuition and extra-curricular activities. However, the fact that these low SES parents did not necessarily have the equivalence in social and cultural capital as their high SES counterparts seems to be of equal importance. The low SES parents generally had little personal knowledge or family experiences of the cultivation routes that lead children to higher education in general and into the top schools and Universities in particular. This for instance meant that parents were unaware of entry exams for particular schools or that additional preparation through private tutoring had become 'the norm' for children sitting the entry exams for the best secondary schools. However, the fact that these parents managed to help their children 'succeed against the odds' even without these means and longstanding reference points to educational achievement that were typically available to middle class parents, underlines the strength of their determination to help their child move ahead. Unlike the middle class families who were helping their child to aspire to something they as parents had already achieved, these working class parents were helping their child to aspire to something more than they had managed for themselves, in effect to move upwards on the social mobility ladder. These parents were cultivating their children for educational success by staying true to their own values and beliefs while simultaneously stimulating them to make a better life for themselves.

The child rearing practices seen in the low SES families with children 'succeeding against the odds' could perhaps be more appropriately termed as 'active cultivation'. Children become part of society's culture at first by participating in family practices. Through participation they learn what is accepted and expected. The practices these parents familiarized their children with during their day-to-day interactions, such as reading together, conversations over shared meals, routines for children to help out with the housework or going out to work and acquiring additional qualifications, socialized these children in ways that resulted in them developing skills and beliefs that matched the expectations of society. As a result they could benefit from what society had to offer through schools, teachers, friends and others in their communities. These parents were setting effective examples for their children, through their own efforts in the work place, efforts to better their social and financial positions through additional schooling and by taking responsibility for their lives and that of their children. They served as valuable role models, demonstrating the value of cultural capital for social and economic status and personal wellbeing.

Like their children who showed educational 'resilience', they too seemed particularly 'resilient' to the hardships they encountered in their lives. Parents used personal experiences (good and bad) to help their children move ahead and as such made the most of the capital they had available. They used their own experiences, resources and strengths to cultivate their child, but often in a less obvious way than the high SES parents. They were aware of certain limitations in their ability to facilitate the child's learning process. As a result, they did not move away from close family ties or religious communities as is often the case in more affluent families, but instead tried to make use of these social networks to find additional sources of support for the child. Additionally, these financially less affluent parents were willing to make substantial personal sacrifices to provide the child with educational outings and family holidays, to pay extra tuition if needed, to have out-of-school classes, additional work books, a computer and internet access, and sometimes even to provide a school uniform. By doing so they once more relayed to the child how much they valued education.

In some of the households we visited, heating was turned off despite the winter cold; walls, windows and floors were bare and light bulbs or tea bags were a luxury. Nonetheless, these families welcomed us into their homes and seemed to enjoy the opportunity to talk about their child, their experiences as parents, their beliefs about parenting and education, and about their hopes for their child. They were proud of their children and often also about what they as parents had achieved. This testifies to the determination of these parents to help their child succeed and make a good future for themselves.

6.1   Final remarks

To date the existing body of literature has identified a broad range of characteristics on the level of society, community, family and individual which contribute to children's success or lack of success during their academic careers. Models such as Bronfenbrenner's ecological model of human development (1979), Harkness' and Super's (1992) proposed concept of the developmental niche and Lareau's conceptualization of socialization in different socio-economic classes (2003) provide us with theoretical frameworks to study how these characteristics shape the lives and academic outcomes of children (see Section 1 of this report). Our analyses clearly confirm the premises of the theoretical models we applied, i.e. that it is never 'just' the one factor of child, family or school, or broader social context that brings about success or failure in an academic trajectory. Rather, it appears to be the particular ecological niches that arise through the active reciprocal interactions between these factors that determine the parameters for children's pathways to academic success. In other words, the real world context of development is complex but while characteristics at macro or meso level, such as school policies and curriculum or parental jobs, exert some influence on children's day-to-day learning experiences, the best opportunities to help children are within reach right there on the micro level. What becomes evident from our case studies is that unexpected academic success, i.e. academic achievement that defies the odds of disadvantage, requires effort and determination from the children themselves as well as from the people around them. By having people around them that believe in them, encourage them, challenge them and support them children develop a strong sense of self-efficacy with regard to academic success. As a result, these relationships with 'significant others' help children to develop their cultural capital. Parents in particular have the opportunity to play a pivotal role in facilitating academic success. Our analyses of parenting in families with children 'succeeding against the odds' of disadvantage, referred to as 'active cultivation', show that parents can encourage and facilitate academic success more directly through the proximal learning processes they choose to offer their children, as well as more indirectly through the opportunities they create for their children to engage in learning processes with others, and through the example they set their children through their own life. Through a process of 'active cultivation' parents can teach their children to develop and sustain meaningful relationships with the people around them and with learning and education. Through their interactions with these people, children learn to build and sustain relationships (i.e. develop social capital) that support and facilitate academic success.

That is not to say that there is not more that could be done for these children. For instance, schools could play a much more active role in 'supplementing' the cultural and social capital that is available to these children. For instance, although most schools provide information about GCSE choices, and some schools provide information about or even excursions to Universities, many children and parents are not aware of the implicit expectations of institutions that need to be met before their children can become part of their culture. Offering such information before children choose their GCSE subjects or even before they start secondary school might give these children better odds to continue their unexpected academic success beyond their compulsory schooling.

The sense of active agency the Child and Family Case Studies (CFCS) show among families with children 'succeeding against the odds' of disadvantage is in stark contrast to the helplessness that was commonly observed and expressed by parents and students who were less academically successful. However, for these children opportunities too might be created by enhancing their social and cultural capital with the help of 'significant others', such as teachers or members from their broader social or cultural communities. Unlike the children 'succeeding against the odds', these children and parents found it hard to recall teachers that had been particularly helpful to their learning. Instead, they often felt let down by schools and teachers alike, and frustrated by their lack of academic success. In many cases, these parents could or would not help their children to develop academic aspirations, sadly neither did the children's schools. Generally, low targets were set for these children with regard to National Assessments and GCSEs, and children were all too aware that little was expected of them. As long as these targets were met, teachers, parents and students felt that things were as they should be. Because of this, children missed out on the experience of having someone believe in them and of being challenged to succeed beyond the low expectations.

Although our data does not allow inferences about causality or generalization to the overall population in the UK, the quantitative data available through the EPPSE project does seem to confirm that such differences in agency, as for instance captured in variables such as the early years home learning environment (HLE) and the social/behavioural child measures, are not just apparent and influential when children start their academic careers, but also that their effect carries on and is compounded as they progress through their academic trajectories and through their life-course as learners.

References

Alexander Pan, B., Rowe, M.L., Singer, J.D. & Snow, C.E. (2005). Maternal correlates of growth in toddler vocabulary production in low-income families. Child development, 76 (4), 763-782.

Allatt, P. (1993). Becoming privileged. The role of family processes. In I. Bates and G. Riseborough (Eds.) Youth and inequality (pp139-159). Buckingham: open University Press.

Anders, Y., Sammons, P., Taggart, B., Sylva, K., Melhuish, E., & Siraj-Blatchford, I. (2010). The influence of child, family, home factors and pre-school education on the identification of special educational needs at age 10. British Educational Research Journal, 36 (3).

Arnold, D.H. & Doctoroff, G.L. (2003). The early education of socioeconomically disadvantaged children. Annual Review of Psychology, 54, 517-545.

Bandura, A. (1995). Self-Efficacy in Changing Societies. Cambridge University Press.

Barron, B. (2006). Interest and self-sustained learning as catalysts of development: a learning ecology perspective. Human Development, 49, 109-244.

Bernstein, B. (1971). Class, Codes and Control. Volume 1. London: Paladin.

Bodovski, K. & Farkas, G. (2008) "Concerted cultivation" and unequal achievement in elementary school. Social Science Research, 37 (3), 903-919.

Bourdieu, P. (1986). The forms of capital. In J.G. Richardson (Ed.) Handbook of theory and research for the sociology of education (pp. 241-257). New York: Greenwood press.

Bradley, R. (2002). Environment and parenting. In M. Bornstein (Ed.) Handbook of parenting (2nd ed). Hillsdale, N: Lawrence Erlbaum.

Bradley, R. H., Corwyn, R. F, Caldwell, B.M., Whiteside-Mansell, L., Wasserman, G.A. & Mink, I.T. (2000). Measuring the home environments of children in early adolescence. Journal of Research on Adolescence, 10 3), 247-288.

Bradley, R.H. & Corwyn, R.F. (2002). Socioeconomic status and child development. Annual Review of Psychology, 53, 371-399.

Bronfenbrenner, U. (1979). The ecology of human development: Experiments by nature and design. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U., & Ceci S.J., (1994). Nature-nurture reconceptualized in developmental perspective: a Bioecological Model. Psychological Review, 101 (4), 568-586.

Bronfenbrenner, U., & Morris, P.A., (1998). The ecology of developmental processes. In W. Damon & R.M. Lerner (Eds.), Handbook of child psychology (Fifth edition). Volume 1: Theoretical models of human development (pp. 993-1028). New York: Wiley.

Bursik, K., & Martin, T.A. (2006). Ego development and adolescent academic achievement. Journal of Research on Adolescence, 16 (1), 1-18.

Bus, A.G.I., Jzendoorn, M.H., & Pellegrini, A.D. (1995). Joint book reading makes for success in learning to read. A meta-analysis of intergenerational transmission of literacy. Review of Educational Research, 65, 1-21.

Cicchetti, D.& Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. Development and Psychopathology, 8, 597-600.

Cook, T.D., Deng, Y. & Morgano, E. (2007). Friendship influences during early adolescence: the special role of friends' grade point average. Journal of Research on Adolescence, 17 (2), 325-356.

Darling, N. & Steinberg, L. (1993). Parenting style as context: an integrative model. Psychological Bulletin, 113 (3), 487-496.

Dearing, E., McCartney, K., Weiss, H.B., Kreider, H. & Simpkins, S. (2004). The promotive effects of family educational involvement for low-income children's literacy. Journal of School Psychology, 42, 445-460.

Dearing,E., Kreider, H., Simpkins, S., & Weiss, H.B. (2006). Family involvement in school and low-income children's literacy: longitudinal associations between and within families. Journal of Educational Psychology, 98 4), 653-664.

Duursma, E., Romero-Contreras, S., Szuber, A., Proctor, P. & Snow, C.E. (2007). The role of home literacy and language environment on bilinguals' English and Spanish vocabulary development. Applied Psycholinguistics, 28, 171-190.

Dweck, C. S. (1999). Self-Theories: Their role in motivation, personality, and development. Philadelphia, PA: The Psychology Press.

Elliot, C. Smith, P. & McCulloch, K. (1996). British Ability Scales Second Edition (BAS II). Windsor: NFER-Nelson Publishing Company Limited.

Epstein, J. L. (1992). School and family partnerships. In M. Aikin (Ed.,) Encyclopedia of educational research (6th ed., pp. 1139–1151).New York: MacMillan.

Evans. G.W. & Rosenbaum, J. (2008). Self-regulation and the income-achievement gap. Early Childhood Research Quarterly, 23 (4), 505-514.

Fan, X. & Chen, M. (2001). Parental involvement and students' academic achievement: a meta analysis. Educational Psychology Review, 13 (1) 1-22.

Feinstein, L., Duckworth, K., & Sabates, R. (2008). Education and the family. Passing success across the generations. London: Routledge.

Forget-Dubois, N., Dionne,G., Lemelin, P., Perusse, D., Tremblay, R.E. & Boivin, M. (2009). Early child language mediates the relationship between home environment and school readiness. Child Development, 80 (3), 736-749.

Greene, M.L. & Way, N. (2005). Self-esteem trajectories among ethnic minority adolescents: a growth curve analysis of the patterns and predictors of change. Journal of Research on Adolescence, 15 (2), 151-178.

Griswold, W. McDonnell, T. & Wright, N. (2005). Reading and the reading class in the twenty-first century. Annual Review of Sociology, 31, 127-141.

Hall, J., Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2009). The role of pre-school quality in promoting resilience in the cognitive development of young children. Oxford Review of Education, 35 (3), 331-352.

Harkness, S. & Super, C.M., (1992). Parental ethnotheories in action. In I.E. Sigel, A.V. McGillicuddy-DeLisi & J.J. Goodnow (eds.), Parental belief systems: the psychological consequences for children (Second edition) (pp.393-414). Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Harms, T., Clifford, R. M. and Cryer, D. (1998). Early Childhood Environmental Rating Scale, Revised Edition (ECERS-R). New York: Teachers College Press.

Hart, B., & Risley, T.R. (1995). Meaningful differences in everyday experiences of young American children. Baltimore, MD: Paul H. Brooks Publishing.

Hill, N.E. & Tyson, D.F. (2009). Parental involvement in middle school: a meta-analytic assessment of the strategies that promote achievement. Developmental Psychology, 45 (3), 740-763.

Hoff, E. (2003). The specificity of environmental influence: socioeconomic status affects early vocabulary development via maternal speech. Child Development, 74 (5), 1368-1378.
Hoff, E. (2006). How social contexts support and shape language development. Developmental Review, 26, 55-88.

Hoover-Dempsey, K.V., Battiato, A.C., Walker, J.M.T., Reed, R.P., DeJong, J.M., & Jones, K.P. (2001). Parental involvement in homework. Educational Psychologist, 36 (3), 195-209.

Jeynes, W.H. (2005). A meat-analysis of the relation of parental involvement to urban elementary school student academic achievement. Urban Education, 40 (3), 237-269.

Lareau, A. (2003). Unequal childhoods. Class, Race, and family life. London: University of California Press.

Lee, V.E. , Loeb, S. & Lubeck, S. (1998). Contextual effects of prekindergarten classrooms for disadvantaged children on cognitive development: the case of Chapter 1. Child Development, 69 (2), 479-494.

Leseman, P.P.M., Scheele, A.F., Mayo, A.Y., & Messer, M.H. (2007). Home literacy as special language environment to prepare children for school. Zeitschrift für Erziehungswissenschaft, 10 (3), p.334-355.

Marsh, H. W. (2006). Self-concept theory, measurement and research into practice: The role of self-concept in educational psychology. Leicester: The British Psychological Society.

Marsh, H. W., Smith, I. D., & Barnes, J. (1985). Multidimensional self-concepts: Relations with sex and academic achievement. Journal of educational Psychology, 77, 581-596.

Masten, A.S. (1994). Resilience in individual development: successful adaptation despite risk and adversity. In M.C. Wang & E.W. Gordon (Eds.), Educational resilience in inner-city America: challenges and prospects (pp. 3-25). Hillsdale, NJ: Erlbaum.

Mayo, A.Y. & Leseman, P.P.M. (2008). Off to a good start? Vocabulary development and differences in early family and classroom experiences of children from native-Dutch and immigrant families in the Netherlands. Educational and Child Psychology, 25 (3), 70-82.

McNeal. R.B. (2001). Differential effects of parental involvement on cognitive and behavioural outcomes by socioeconomic status. Journal of Socio-Economics, 30, 171-179.

Melhuish, E. (2010). Why children, parents and home learning are important. In Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. and Taggart, B., (Eds) (2010). Early Childhood Matters: Evidence from the Effective Pre-school and Primary Education Project. London: Routledge pp 44-69.

Melhuish, E. C., Phan, M.B., Sylva, K., Sammons, P., Siraj-Blatchford, I. & Taggart B. (2008). Effects of the Home Learning Environment and Preschool Center Experience upon Literacy and Numeracy Development in Early Primary School, Journal of Social Issues, 64 (1), 95-114.

Melhuish, E., Romaniuk, H., Sammons, P., Sylva, K., Siraj-Blatchford, I. and Taggart, B. (2006). Effective Pre-school and Primary Education 3-11 Project (EPPE 3-11): The Effectiveness of Primary Schools in England in Key Stage 2 for 2002, 2003 and 2004. Full Report. London: Institute of Education, University of London.

Melhuish, E., Sylva, K., Sammons, P., Siraj-Blatchford, I., & Taggart, B. (2001). Technical Paper 7 - The Effective Provision of Pre-School Education (EPPE) Project: Social/behavoural and Cognitive Development at 3-4 years in Relation to Family Background. London: DfEE / Institute of Education, University of London.

Molfese, V.J., Modglin, A., & Molfese, D.L. (2003). The role of environment in the development of reading skills: a longitudinal study of pre-school and school-age measures. Journal of Learning Disabilities, 36 (1), 59-67.

Mortimore, P., Sammons, P., Stoll, L., Lewis, D. & Ecob, R. (1988). School Matters: The Junior Years. Wells, Open Books.

Mounts, N. S. (2000). Parental management of adolescent peer relationships. What are its effects on friend selection? In Family and Peers: Linking Two Social Worlds, ed. K.A. Kerns, J.M. Contreras, A.M. Neal-Barnett, pp. 169–94. Westport, CT: Praeger.

NICHD ECCRN (2002). National Institute of Child Health and Human Development/ Early Child Care Research Network).The relation of global first-grade classroom environment to structural classroom features and teacher and student behaviors. The Elementary School Journal, 102 (5) 367-387.

Ofsted (2000). Improving city schools. London: OFSTED.

Ofsted (2009). Twelve Outstanding Secondary Schools Excelling Against the Odds, London: OFSTED.

Parke, R.D. (2004) Development in the family. Annual Review of Psychology, 55, 365-399.

Pianta, R.C., La Paro, K.M., Payne, C., Cox, M.J., & Bradley, R. (2002). The relation of kindergarten classroom environment to teacher, family, and school characteristics and child outcomes. The Elementary School Journal, 102 (3), 226-238.

Raviv, T., Kessenich, M., & Morisson, F.J. (2004). A mediational model of the association between socioeconomic status and three-year-old language abilities: the role of parenting factors. Early Childhood Research Quarterly, 19, 528-547.

Reynolds, T. (2006a). Caribbean young people, family relationships and social capital, special issue: Social capital, migration and transnational families. Journal of Ethnic and Racial Studies, 29 (6), 1087-1103.

Reynolds, T. (2006b). Family and community networks in the (re)making of ethnic identity of Caribbean young people in Britain. Community, Work and Family, 9 (3), 273-290.

Rogoff, B. (1993). Children's guided participation and participatory appropriation in sociocultural activity. In R.H. Wozniak & K.W. Fischer (Eds.), Development in context; acting and thinking in specific environments (pp.121-153).

Rogoff, B., Baker-Smith, J., Lacasa, P., & Goldsmith, D., (1995). Development through participation in sociocultural activity. New Directions for Child Development, 67, 45-65.

Rogoff, B., Paradise, R., Mejía Arauz, R., Correa- Chávez, M., & Angelillo, C. (2003). Firsthand learning through intent participation. Annual Review of Psychology, 54, 175-203.

Rutter, M. (2007). Resilience, competence, and coping. Child Abuse & neglect, 31, 205-209.

Sammons, P. (2007). School Effectiveness and Equity: Making connections. Reading: CfBT Education Trust.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Elliot, K. (2002a). Technical Paper 8a: Measuring the impact of Pre-school on children's cognitive progress over the Pre-school period. DfES/ Institute of Education, University of London.

Sammons, P., Smees, R., Taggart, B., Sylva, K., Melhuish, E. C., Siraj-Blatchford, I. and Elliot, K. (2002b), The Early Years Transition and Special Educational Needs (EYTSEN) Project: Technical Paper 1 - Special Needs Across the Pre-School Period. London: DfES / Institute of Education, University of London.

Sammons, P., Taggart, B., Smees, R., Sylva, K., Melhuish, E., Siraj-Blatchford, I. and Elliot, K. (2003). The Early Years Transition and Special Educational Needs (EYTSEN) Project: DFES Research Report 431. Nottingham: DfES Publications.

Sammons, P., Elliot, K., Sylva, K., Melhuish, E., Siraj-Blatchford, I., & Taggart, B. (2004). The impact of pre-school on young children's cognitive attainments at entry to reception. British Education Research Journal, 30 (5), 691-712.

Sammons, P., Siraj-Blatchford, I., Sylva, K., Melhuish, E., Taggart, B. and Elliot, K. (2005), 'Investigating the Effects of Pre-school Provision: Using mixed methods in the EPPE research'. International Journal of Social Research Methodology special issue on Mixed Methods in Educational Research, 8 (3), 207-224

Sammons, P., Grabbe, Y., Barreau, S., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., Welcomme, W. & Hunt, S. (2007a). Influences on children's attainment, progress and social/behavioural development in primary school (part 1). The EPPE 3-11 Research Team promoting equality in the early years: report to the Equalities review, London: The cabinet Office.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Hunt, S. (2008a). The Effective Pre-School and Primary Education 3-11 Project (EPPE 3-11): Influences on Children's Attainment and Progress in Key Stage 2: Cognitive Outcomes in Year 6. DCSF/Institute of Education, University of London.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Grabbe, Y. (2007ba). Effective pre-school and primary education 3-11 project (EPPE 3-11): Influences on children's attainment and progress in key stage 2: Cognitive outcomes in year 5. Full report. London: Institute of Education, University of London.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., Barreau, S., et al. (2007c). Effective pre-school and primary education 3-11 project (EPPE 3-11): Influences on children's development and progress in key stage 2: Social/behavioural outcomes in year 5. Research report no. Dcsf-rr007. Nottingham: DfES Publications.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., & Jelicic, H. (2008b). The Effective Pre-School and Primary Education 3-11 Project (EPPE 3-11): Influences on Children's Attainment and Progress in Key Stage 2: Social/behavioural Outcomes in Year 6. DCSF/Institute of Education, University of London.

Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B., Barreau, S., & Grabbe, Y. (2008c). The Effective Pre-School and Primary Education 3-11 Project (EPPE 3-11): The influence of school and teaching quality on children's progress in primary school. DCSF-RB028.

Sammons, P., Anders, Y., Sylva, K., Melhuish, E., Siraj-Blatchford, I., Taggart, B. and Barreau, S. (2008d), Children's Cognitive Attainment and Progress in English Primary Schools During Key Stage 2: Investigating the potential continuing influences of pre-school education, Zeitschrift für Erziehungswissenschaften, 10. Jahrg., Special Issue (Sonderheft) 11/2008, p. 179-198.

Sampson, W.A. (2007). Race, class, and family intervention. Engaging parents and families for academic success. Maryland: Rowman & Littlefield Education.

Scheerens, J., & Bosker, R. (1997). The foundations of educational effectiveness. Oxford: Pergamon.

Schoon, I. (2001). Teenage job aspirations and career attainment in adulthood: a 17-year follow-up study of teenagers who aspired to become scientists, health professionals, or engineers. International Journal of Behavioural Development, 25 (2), 124-132.

Scott, K. and Carran, D. (1989). Identification and referral of handicapped infants. In M. C. Wang, M. C. Reynolds and H. J. Walberg (Eds), Handbook of Special Education Research and Practice: Low Incidence Conditions (Vol.3) (pp. 227-241). Oxford, England: Pergamon Press.

Sharp, C., George, N., Sargent, C., O'Donnell, S. and Heron, M. (2009). International Thematic Probe: the Influence of Relative Age on Learner Attainment and Development. Slough: NFER.

Sheldon, S.B. & Epstein, J.L. (2005). Involvement counts: family and community partnerships and mathematics achievement. The Journal of Educational Research, 98 (4),196-206.

Siraj-Blatchford, I. & Siraj-Blatchford, J.(2009). Improving children's attainment through a better quality of family-based support for early learning. Centre for Excellence and Outcomes in Children and Young People's Services (C4EO). Early Years Knowledge Review 2.

Siraj-Blatchford, I. (2010). 'Learning in the Home and at School: How working class children 'succeed against the odds'', British Educational Research Journal, 36 (3), 463-428.

Siraj-Blatchford, I. , Shepherd, D.L., Sylva, K., Melhuish, E., Sammons, P., Taggart, B., (2011 forthcoming). The Effective Pre-School, Primary and Secondary Education Project (EPPSE): Effective Primary Pedagogical Strategies in English and Maths (EPPSEM) in Key Stage 2 Study.

Siraj-Blatchford, I. , Siraj-Blatchford, J., Taggart, B., Sylva, K., Melhuish, E., Sammons, P., & Hunt., S. (2007). How low SES families support children's learning at home: promoting equality in the early years (part 3). The EPPE 3-11 Research Team promoting equality in the early years: report to the Equalities review, London: The Cabinet Office.

Siraj-Blatchford, I., Mayo, A., Melhuish, E., Taggart, B., Sammons, P., & Sylva, K., (2011). Developmental trajectories of children in the EPPSE study 'performing against the odds': Fifty qualitative child and family case studies - Research Brief 128. Nottingham: DfE.

Siraj-Blatchford, I., & Sylva, K. (2004). Researching pedagogy in English pre-schools. British Educational Research Journal, 30 (5), 713-730.

Siraj-Blatchford, I., Sammons, P., Taggart, B., Sylva, K. and Melhuish, E. (2006), 'Educational   Research and Evidence-Based Policy: The Mixed-method Approach of the EPPE Project'. Evaluation of Research in Education, 19 (2), 63-82.

Smith, M.W., & Dickinson, D.K. (1994). Describing oral language opportunities and environments in Head Start and other pre-school classrooms. Early Childhood Research Quarterly, 9, 345-366.

Steinberg, L. & Morris, A.S., (2001). Adolescent development. Annual Review of Psychology, 52, 83-110.

Steinberg, L. (2001). We know some things: parent-adolescent relationships in retrospect and prospect. Journal of Research on Adolescence, 11 (1), 1-19.

Steinberg, L., Mounts, N.S., Lamborn, S.D. & Dornbusch, S.M. (1991). Authoritative parenting and adolescent adjustment across varied ecological niches. Journal of Research on Adolescence, 1 (1), 19-36.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B., (2004). The Effective Provision of Pre-school Education (EPPE) Project. Final report. London: DfES/ Institute of Education, University of London.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., Taggart, B., (2007). The EPPE 3-11 Research Team promoting equality in the early years: report to the Equalities Review, London: The cabinet Office.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., Taggart, B., (2008). Final Report from the Primary Phase: Pre-school, School and Family Influences on children's development during Key Stage 2 (7-11). Nottingham: DCSF RR 061 The Department for Children, Schools and Families.

Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I., & Taggart, B., (2010). Early Childhood matters. Evidence from the Effective Pre-school and Primary Education Project. London: Routledge.

Sylva, K., Siraj-Blatchford, I., & Taggart, B. (2003). Assessing Quality in the Early Years: Early Childhood Environment Rating Scale Extension (ECERS-E): Four Curricular Subscales. Stoke-on Trent, Trentham Books.

Sylva, K., Siraj-Blatchford, I., Taggart, B., Sammons, P., Melhuish, E., Elliot, K., & Totsika, V., (2006). Capturing quality in early childhood through environmental rating scales. Early Childhood Research Quarterly, 21, 76-92.

Taggart, B., Sammons, P., Smees, R., Sylva, K., Melhuish, E., Siraj-Blatchford, I., et al. (2006). Early identification of special needs and the definition of 'at risk': The early years transition and special education needs (EYTSEN) project. British Journal of Special Education, 33(1), 40-45.

Teddlie, C., & Reynolds, D. (2000). The international handbook of school effectiveness research. London: Falmer Press.

Tizard, B. & Hughes, M. (1984) Children Learning at Home and in School. London, Fontana.

Tomasello, M., (1999). The cultural origins of human cognition. Cambridge, Massachusetts: Harvard University Press

Tudge, J. R. H., Mokrova, I., Hatfield, B., & Karnik, R. B. (2009). Uses and misuses of Bronfenbrenner's bioecological theory of human development. Journal of Family Theory and Review, 1(4), 198-210.

Tudge, J.R.H., Odero, D.A., Hogan, D.M. & Etz, K.E. (2003). Relations between the everyday activities of pre-schoolers and their teachers'perceptions of their competence in the first year of school. Early Childhood Research Quarterly, 18, 42-64.

Turkheimer, E., Haley, A., D'Onofrio, B., Waldron, M. and Gottesman, I.I. (2003). Socioeconomic status modifies heritability of IQ in young children. Psychological science, 14 (6), 623–628.

Van der Werf , G. (2006). General and differential effects of constructivist teaching, Keynote presentation at the annual meeting of the International Congress for School Effectiveness and Improvement, Florida 3-6 January 2006.

Vincent, C. & Ball, S.J. (2006). Childcare, choice and class practices. Middle-class parents and their children. London: Routledge.

Willis, P.E. (1977). Learning to labour: how working class kids get working class jobs. Farnborough, Saxon House.

Appendix 1: Example of a personalised student interview

SEMI STRUCTURED STUDENT INTERVIEWS

Name student: Steven S. (ID xxxx)
Interview date: 14-1-2009
Name interviewer: A. M.

INTRODUCTION I'm really happy that we are going to have this chat. I just want to tell you a few things before we get started. First of all, I want you to know that the things you tell me are confidential. That means that I won't tell your parents or anyone else about the things you say to me. However, a part of doing research like this is writing about what I learn from you. Just to let you know, when I write about things, I always make sure that you and your parents stay anonymous, that is: I'll use different names for you, so nobody will know it's you. Can you think of a name you would like me to use? I can't guarantee that I'll use it, but I'll certainly keep it in mind! …………………

Now, as you know, the reason we are having this chat is because I want to learn more about what things and which people you feel are important to help you learn since you were very little to now, and how you think they influence how you do in school. I would also really like to hear about when you were younger and maybe if things were different from how they are now. So I'll be asking you questions about school, home, friends and other important people in your life. And you can help me by giving me examples of things that have happened recently and when you were little. I have a paper here with information that I got from the questionnaires that you and your parents filled out since you were in Nursery class. It also has information about your school and names of the schools you went to. We'll keep that in front of us, as it might help you to remember things. Furthermore, you can probably hear my funny accent. That is because I grew up in Holland. So I might use words you don't know and you might use words that I don't know. So I'll ask you to explain to me what those words mean and you can ask me to do the same.
We'll start with when you were really young….

PRE-SCHOOL
1.   Can you tell me about your first memories? How old were you?

2.   Can you remember what kind of things you learned when you were very little, under five? Who or what did you learn them from?

3.   *Possible follow up* Do you remember any of the things you did at home at that time?
Who did you do them with and what did you learn from them? ➔HLE=2; no bedtime; no tv watching; not played with friends; no family meals; book=every day (no library), looking at books, pointing at letters, play writing, singing abc-songs; counting games during daily grinds; singing songs together.

4.   Do you remember what it was like at *Happy Park*? Do you remember your teacher at Nursery? Can you give me some examples of things you used to do there?

5.   Do you remember any of your friends from Nursery? Can you think of something that you learned from them?

6.   How did people make you feel about learning? Why?

PRIMARY SCHOOL

7. So then you went to Prior Preston Primary School. How easy did you find it to learn in Primary School? Can you give me some examples of what you found hard and what was easier? What about at Tuttons Primary School? Why did you change schools? Y5: liked school, coped well

8. Did you have a favourite teacher? Why was that? Can you give me an example of the things s/he did that helped you to learn? What about at *Tuttons Primary School?*

9. Can you give me an example of the kind of things other teachers or adults at *Prior Preston Primary school* did to help you with school and learning? What about at T*uttons Primary School?*

10. Can you tell me about the friends you had at *Prior Preston and Tuttons*? Do you think they influenced how you did in school? Can you give me an example? ➔ Y5 has a lot of friends & best friend in class

11. What happened when you worked on your homework after school? Can you tell me where, how and when you did it? ➔ occasionally got homework

12. Was there anyone around to help you with your homework if you needed it? Can you give me an example of how they helped you? ➔ Mum helped 2-3 times per week / later once a week / Y5: help some of the time

13. What kind of things did you do as a family before you were 11 that you think helped you with Primary school? ➔ often: play computer games, listen to read, read to, shopping; 3-4 hrs TV; occasionally: games, educational computer, educational visits outside the home; hardly ever: sports, library. Plays pretend games and computer games.

14. Can you give me an example of what used to happen if you disagreed with your parents about something, for instance their rules about jobs around the house, television or bedtime? ➔ shout/ tell off

15. When you were at *Prior Preston and Tuttons*, what kind of things did your parents say to you about learning and school? Can you give me any examples? ➔ parents asked about what he did in school

16. Do you feel these talks were important for how well you did in *Prior Preston and Tuttons*? Can you give me an example?

17. How about discussions and activities with other adults who are important to you, e.g. another family member, a sports coach, or a religious person. Do you think these helped you with learning? How?

SECONDARY SCHOOL

18. Can you tell me a bit about how you think you are doing in school right now? ➔ excellent in Math, Science, ICT, Arts; pretty good in English, average in PE

19. How did you do in your Key Stage 3 SATs? What were the result for English, Math and Science? ➔Expected 7 for E, SC.& M.

20. How did you choose your GCSE subjects? Who or what influenced you? ➔ interest, useful for job, do well; not: like teacher, friends, parents

21. Can you give me some examples of things you find hard and things you find easier in Secondary school? How do you deal with things you find hard?

22. What do you think is the reason that you are doing well in school? Can you give me an example? ➔ above prediction

23. Why do you think some children do better in school than others?

24. Have you got a favourite teacher? What is it that s/he does that helps you most with school? ➔ likes most classes; positive about teachers

25. What about homework? Can you tell me what happens when you work on your home work after school? ➔homework room at school; revision for SAT's computer; 2-3 hrs homework; parents check home work.

26. Tell me a bit about the things you do as a family. What do you feel you learn from these experiences? ➔ 3-5 meals together, discuss current events/TV, shopping, visit relatives

27. What kind of things do you do in your free time now? How does this influence your experience in school? ➔ gone out with friends; reading; dance class; 2-3 hrs computer games; spend with family.

28. How do you feel your friends influence you? How does this impact on how you're doing in school? Why? ➔ no problem behaviour; support from friends; makes friends easily, popular

29. What usually happens if you disagree with your parents about any of the rules at home, for instance about computer time or how long you can stay out with friends? ➔hardly ever falls out; never breaks rules; shout/ tell off

30. What kinds of things do your parents say to you about school, education, or learning? Do you feel these discussions are important for how well you do in school and learning? ➔ most days ask about school, sometimes friends and teachers

31. How about discussions and activities with other adults who are important to you, e.g. another family member, a sports coach, or even a religious person. Do you think these help you with learning now? How?

32. Which people do you think have given you the most help with school and learning so far and what did they do to help you?

FUTURE

33. What job you would like to have when you leave school? How did/will you decide on that? ➔ University

34. What will you need to do to make sure you can have that job?

35. What do you feel are the most important things for your future that you have learned so far from school, home and friends?

36. Do you think there are things that happened in your life that have influenced how well you've done in school, that we haven't talked about? Can you give me an example? ➔ family violence, new partner for parent; religion

CLOSING

Well, we are almost done. Thank you so much for telling me all about your life. As I said at the beginning, the reason I wanted to talk to you was to get a better idea of what you think is and has been important in helping you learn and dealing with school. This talk has been very helpful. We have talked about school, teachers, your home and parents, about friends and about your future plans. But maybe you feel that someone or maybe something that we did not talk about is important as well. **Can you think of anything?**

Well, just in case you think about anything after I have left or if you feel you want to say anything else about something we talked about, I'll leave this card with you. You can write down anything you think of and just pop it into the post, my address is already on the card and you don't need a stamp. It also has my email address on it, so you can always drop me a line if you think of anything. As I said before, everything we talk about is confidential.

You know we are also talking with your parent. We would like to have a chat with someone in your school as well. Of course we won't tell her/him anything about the things you have said. We just want to hear what they think their role is in helping students in school. **Which teacher or staff member would you say knows you best in this school? Probe:** Who is your form teacher?

Name teacher:
……
Subject taught/function:
……
Name school:
………………………………………………………………………………………………………..

Now there's one more thing I wanted to ask:
May I have a look at the place where you usually do your homework?

Appendix 2: Example of a personalised parent interview

SEMI STRUCTURED PARENT INTERVIEWS

Name parent: Ms S.
Student ID: xxxx
Interview date: 14-1-2009
Name interviewer: A.M.

INTRODUCTION
I'm really happy that we are going to have this interview. I just want to tell you a few things before we get started. First of all, I want you to know that the information you or your child give in these interviews will be reported using different names, so nobody will have to know it was you.

As we discussed before, the reason we are having this interview is because I want to learn more about what parents such as you, feel is important for their children's school success or any difficulties and for their learning opportunities. Therefore I'll be asking you to tell me about things that you personally feel are, or have been, important for your son's learning experiences. The questions will start with what happened before they started primary school and go up to learning in secondary school and the future. As a reminder I have a paper here with information that I got from the questionnaires that you and your child filled out since he was three years old. It has information about how he was doing in school and names of the schools he went to. We'll keep that in front of us, as it might help you to remember things. Furthermore, as I am not a native speaker I might at times use words and phrases that are unclear to you. Please feel free to ask me to clarify these. Similarly, I might at times ask you to explain a word that I'm not familiar with.

PRE-SCHOOL
1.   Can you tell me what *Steven* was like when he was little? ➔very short attention span; hearing difficulties; didn't speak until after 1st birthday, developmentally delayed; grommet and speech therapy.

2.   Can you give me some examples of things you did at home with *Steven* before age 5? How do you think this has helped with later learning? ➔HLE=2; no bedtime; no tv watching; not played with friends; no family meals; book=every day (no library), looking at books, pointing at letters, play writing, singing abc-songs; counting games during daily grinds; singing songs together.

3.   What made you decide that *Steven* would attend Pre-school? Did you have any particular reasons for choosing *Happy Park EYC*? ➔ close, older sibling attended

4.   Were there any staff at *Happy Park EYC* that you feel helped *Steven*'s learning most at that time? Can you give me examples of what they did? ➔nursery teacher recognised hearing difficulties , helped to sign and monitor how he played with other children.

5.   In what ways you were involved with *Happy Park EYC*? Why did you feel this was important?

PRIMARY SCHOOL

6. Was there anything you said to *Steven* about starting Primary school? Why was that?

7. How well did *Steven* settle into *Prior Preston*? Why? ➔ unhappy going to Prior Weston; Switched to Tutton Primary in last year, why?

8. Was there any information passed on to *Prior Preston* by the Pre-school? How do you think this affected *Steven* settling in to Primary School?

9. What do you feel *Steven*'s Primary school offered that helped him to learn? What about at *Tutton*? ➔ reading difficulties?

10. How did you stay informed about *Steven* progress in Primary school? What about at *Tutton*? ➔ newsletters, homework, teacher meetings.

11. How do you feel about the way *Prior Preston* communicated with you about *Steven*'s progress? What about at *Tutton*? ➔very satisfied

12. Is there any way in which *Prior Preston* could have done more for *Steven*'s learning at this time? Why do you think this did not happen? What about at *Tutton*?

13. Can you give me some examples of things you did at home with *Steven* during the primary school years that you feel have been important for his learning? ➔ often: play computer games, listen to read, read to, shopping; 3-4 hrs TV; occasionally: games, educational computer, educational visits outside the home; hardly ever: sports, library. Plays pretend games and computer games.

14. Did *Steven* have any particular jobs around the house during his Primary school years? Why did you believe it was important for him to do/not do such jobs?

15. What rules were important for *Steven* to have at home and how do you think these rules helped with school? ➔ no bedtime in weekends; shout, tell off and talk to.

16. Can you tell me how you discussed these rules with *Steven*? Could you give me an example?

17. When *Steven* was in Primary school what kind of things did he do in his free time that you feel were important for his school success? Why do you think that is? ➔ dance class & sports

SECONDARY SCHOOL

18. How did *Steven* adjust to the change from Primary to Secondary school? ➔ nearest school; Y9: settled in well: "I like my school and am happy here".

19. Can you tell me how you think *Steven* has been doing in Secondary school? Why? What about in English, Maths and Science? ➔ happy; good progress; no worries about his behaviour.

20. Which of *Steven*'s current teachers do you think is/are helping him most in school? Can you give examples of the way they help?

21. How does *Steven* deal with things that he finds difficult in school or in learning at home? Why do you think he does that?

SECONDARY SCHOOL continued

22. Is there any way in which *Raynes School Language College* could do more for *Steven*'s learning? Why do you think this hasn't happened?

23. How do you feel about the way *Raynes School Language College* communicates with you about *Steven*'s progress? ➔ discussed work 1-3 times with teachers

24. Can you tell me about the talks you have with *Steven* about how he is doing in school? Can you give me an example of how this might help his education? ➔ talks about school, friends, GCSE's, school work, behaviour, checked homework

25. What can you do as a parent to help *Steven* develop as a person and to do well in school? Why do you feel these things are so important?

26. Are there any other adults, perhaps in your family or in your community or at school who have or have had an important influence on how *Steven* is doing in school? Could you give me an example?

PARENT

27. Where do you feel that your own ideas about learning, school and how children develop come from?

28. What was your school and education like? How do you feel your own experience influenced *Steven*'s learning? ➔ no qualifications

29. How has your family's financial and job situation influenced the kind of support you can provide for *Steven*'s learning? Could you give me an example? ➔separation

30. How have other people (e.g. friends, extended family, community, religious group) supported you with bringing up *Steven*? Has this helped *Steven*'s education and learning now and when he was younger?

31. Do you think there are things that happened in your life that have influenced how well *Steven* has done in school, that we haven't talked about? Can you tell me about some of these things? ➔ separation

FUTURE

32. What kind of qualifications would you like *Steven* to have? Do you think he will achieve that? Why? ➔ University

33. What kind of job would you like *Steven* to have? Do you think he will achieve that? Why?

34. What do you feel that you as a parent can do to help him achieve this future?

Appendix 3: Example of personalised teacher interview

SEMI STRUCTURED TEACHER TELEPHONE INTERVIEW

Name student: Steven
Name teacher: Ms x
Class/subject: Science Y10
Interview date: 26-5-2009 18:30
Name interviewer: AYM

ABOUT Steven

1. How is Steven achieving in school? Do you feel that perhaps he is doing better or less well than you'd expect? Why do you think that is?

2. What kind of particular learning strategies does Steven use and how effective do you think these are for him? Can you give me an example?

3. What do you feel that you as a teacher can do for Steven to help him with school and his future? Can you give me an example?

4. How do you feel Steven's learning is influenced by his peers? Can you give me an example?

5. What do you think about the way Steven is supported by his family? Can you give me an example?

6. Could you describe the educational future you see for Steven? Why do you think that is?

Appendix 4: Example of a CFCS retrograph based on longitudinal EPPSE data

Section A: Shown to family

Name student: Steven S.

ID number: xxxx

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Age	0	12	3	4	5	6	7	8	9	10	11	12	13	14	15	

| School | | | | Reception | | Y1 | Y2 | Y3 | Y4 | Y5 | Y6 | Y7 | Y8 | Y9 | Y10 | |

KEY STAGE 1   **KEY STAGE 2**   **KS3**

I----------II------------II---I I--->

| Birth date: 7-7-1994

Family:
Mum
1 Older sister | **Silver Play-group** 12.5 hrs/wk | **Happy Park EYC** 25 hrs/wk | **Prior Preston Primary School**
- Reading difficulties (dyslexia)
- Hearing difficulties
- Likes English, Maths, science, art & PE
- Sports outside of school (swimming?) & tap dance | **Tuttons Primary School**
- Tap dance | **Raynes School Language College**
- Excellent at math, science, ICT, art, modern languages |

Section B: Only for researcher, not shown to family

Line graph (Reading = red, Math = green) with vertical axis from 90 to 130, and points marked at Y1, Y2, Y5, Y6, Y9.

| - Birth weight: 3520 g. (on time & no complication)
- English speaking & white UK
- HLE = 2 (low)
- Parents (married): no qualifications
- Dad part time (postman); mum not working | ECERS-E top 20% | - Glue ear; hospital, hearing difficulties; speech therapist; bereavement
- Mum works part time (12hrs) as a cleaner
- Flat, owner occupied, somewhat safe; some contact with neighbours.
-Y5: Likes school and teachers
- School: E= +1SD; SC+M= within 1 SD
Y1: H=1.2; S-R=2.3; P-S=2.8; A-S=1
Y2: H=2; S-R=2.8; P-S=3; A-S=1 | - listen to N read
- Physical activities
- Moved house
- Hospital & physiotherapist
- No SEN
- School: E+SC+M= within 1SD
Y5: H=1.5; S-R=2.3; P-S=2.3; A-S=1
Y6: H=1.4; S-R=2.3; P-S=2.4; A-S=1 | - Parents separated (conflict & violence) mum works 31 hrs cleaning
- Mum happy with school
- Y9: feels good at school; no mentor; help with homework |

90

Appendix 5: Individual trajectory patterns for CFCS children

A Constancy: a generally stable developmental trajectory around a particular mean of the child's ranking position Fluctuation between rankings does not exceed 20 points.

B Ascending: the development trajectory shows a substantial increase of the child's ranking position, possibly in combination with a period of constancy:

C Descending: the development trajectory shows a substantial decrease of the child's ranking position, possibly in combination with a period of constancy:

D Ascending followed by descending: the development trajectory shows a substantial increase of the child's ranking position followed by a substantial decrease

E Descending followed by ascending: the development trajectory shows a substantial decrease of the child's ranking position followed by a substantial increase

F Changeability: the developmental trajectory shows substantial fluctuation in the child's ranking position.

Group 1: low SES, high attainment

Charley: girl, Group 1
Trajectories: English = B; Maths=B
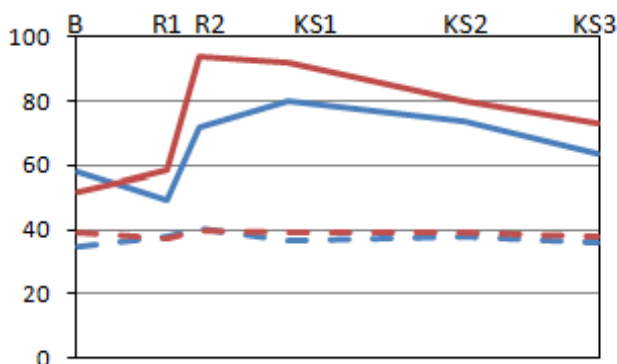
Marta: girl, Group 1
Trajectories: English = B; Maths=A
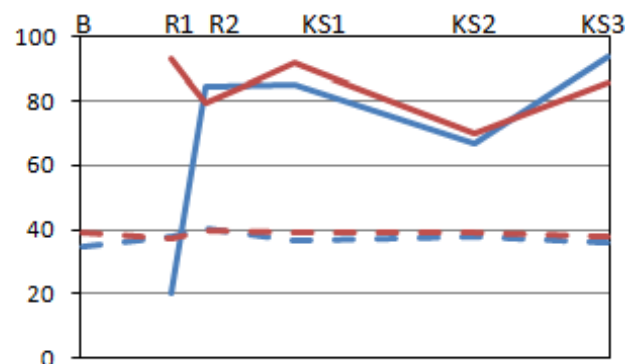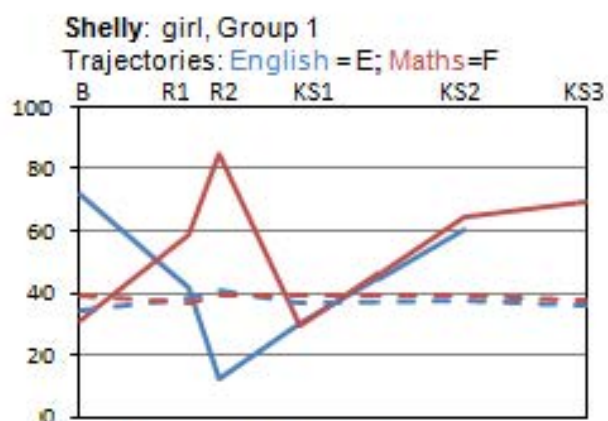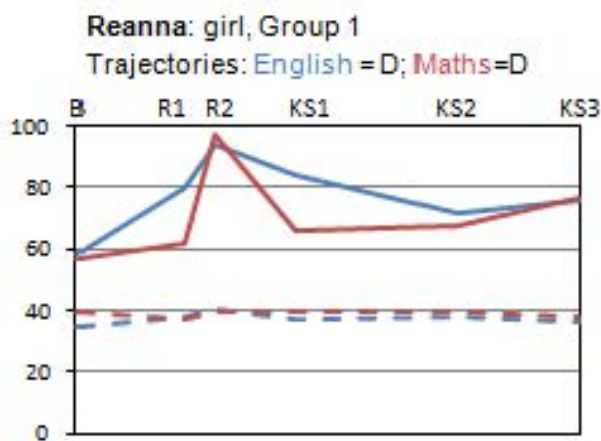
Anjali: girl, Group 1
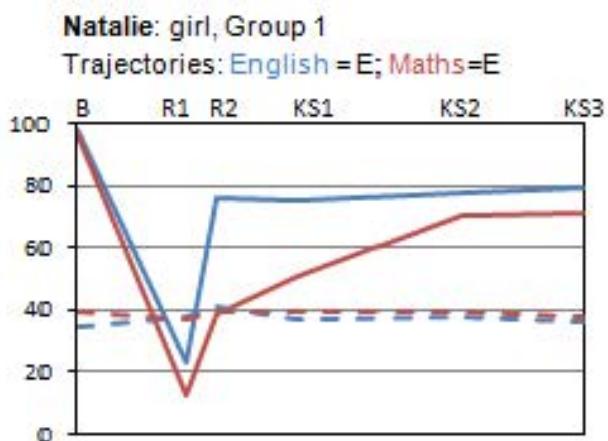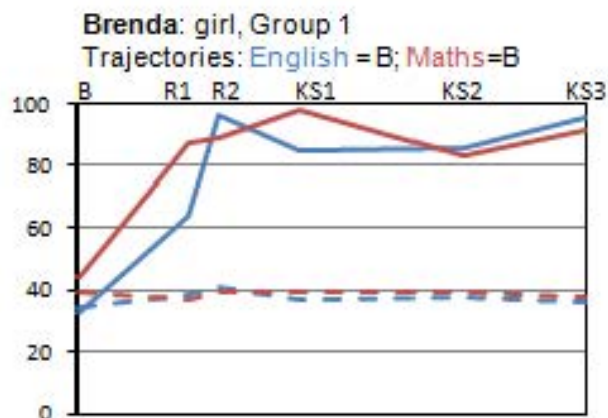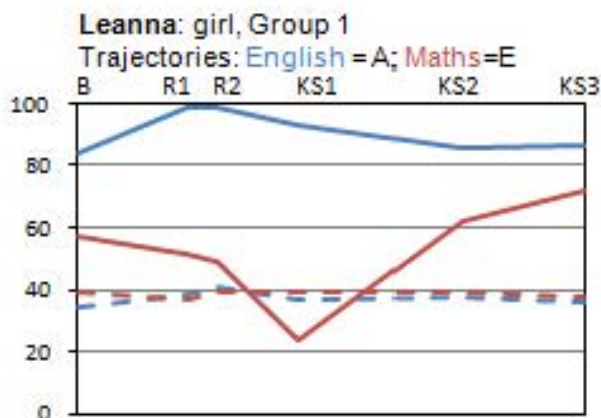Trajectories: English = A; Maths=E
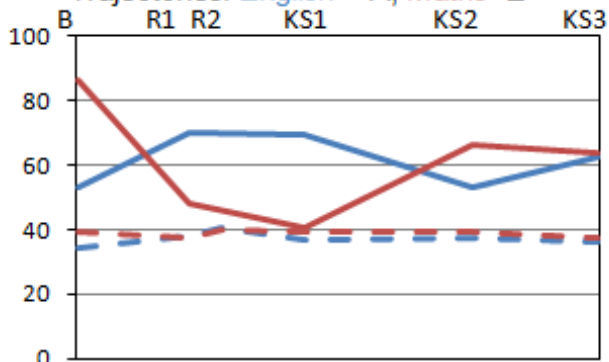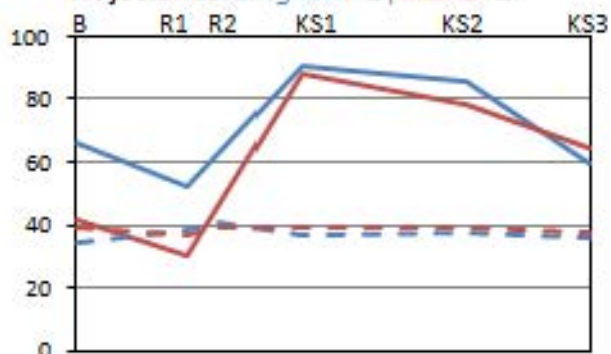
Ife: girl, Group 1
Trajectories: English = A; Maths=B
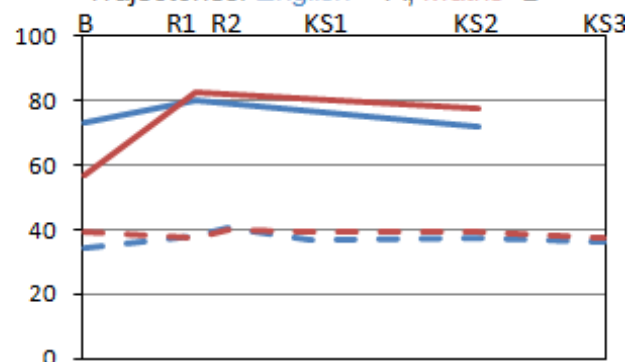
B = baseline age 3; **R1** = entry reception age 5; **R2** = end of reception age 6; **KS1** =Key Stage 1 age 7; **KS2** = Key Stage 2 age 11; **KS3** = Key Stage 3 age 14

Leanna: girl, Group 1
Trajectories: English = A; Maths = E

Brenda: girl, Group 1
Trajectories: English = B; Maths = B

Natalie: girl, Group 1
Trajectories: English = E; Maths = E

Reanna: girl, Group 1
Trajectories: English = D; Maths = D

Shelly: girl, Group 1
Trajectories: English = E; Maths = F

Tanya: girl, Group 1
Trajectories: English = B; Maths = B

Sharlene: girl, Group 1
Trajectories: English = B; Maths = B

Asya: girl, Group 1
Trajectories: English = A; Maths = B
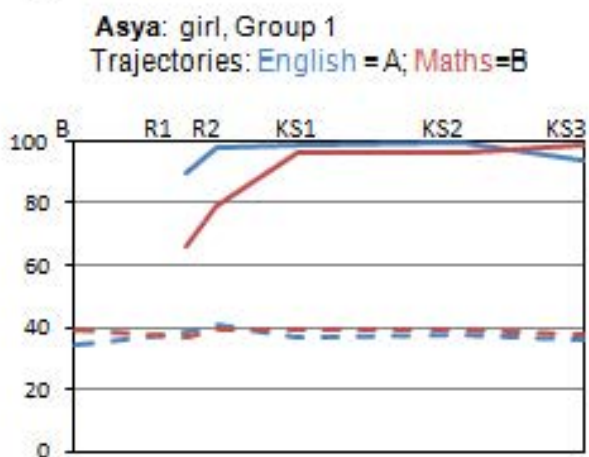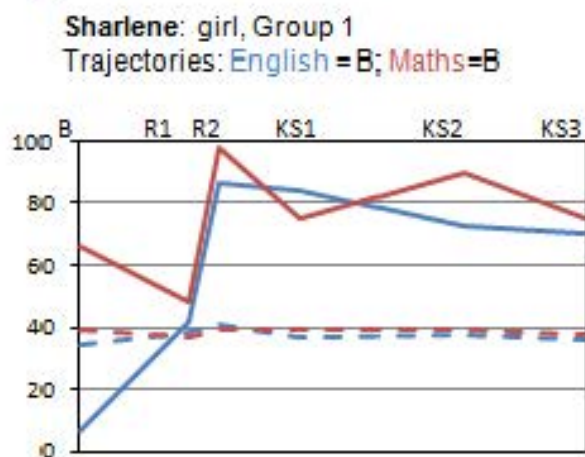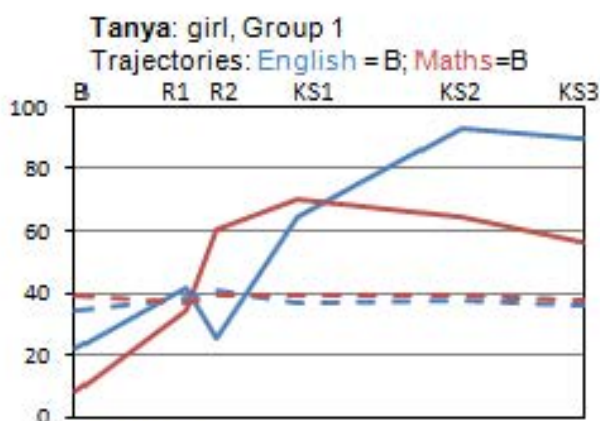
B = baseline age 3; R1 = entry reception age 5; R2 = end of reception age 6; KS1 = Key Stage 1 age 7; KS2 = Key Stage 2 age 11; KS3 = Key Stage 3 age 14
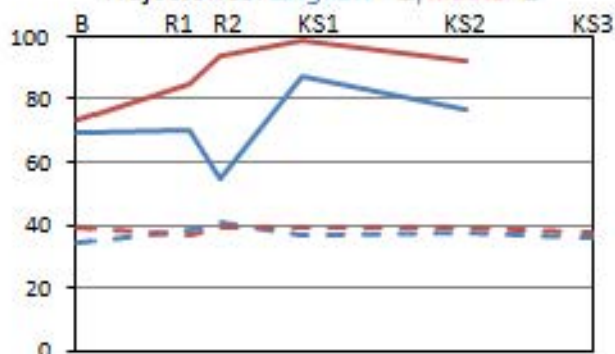
Robert: boy, Group 1
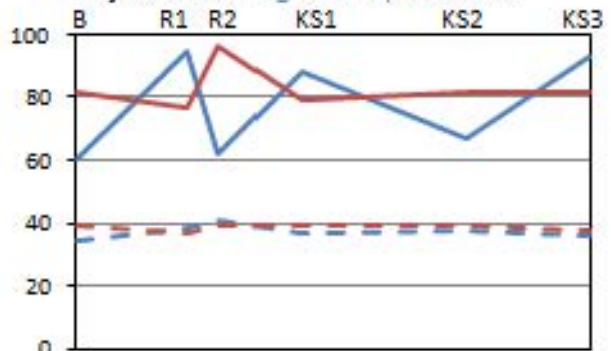Trajectories: English = D; Maths =D

Peter: Boy, Group 1
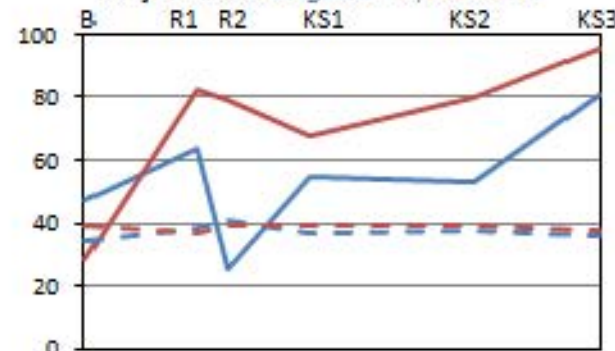Trajectories: English = E; Maths=B

Shaquille: boy, Group 1
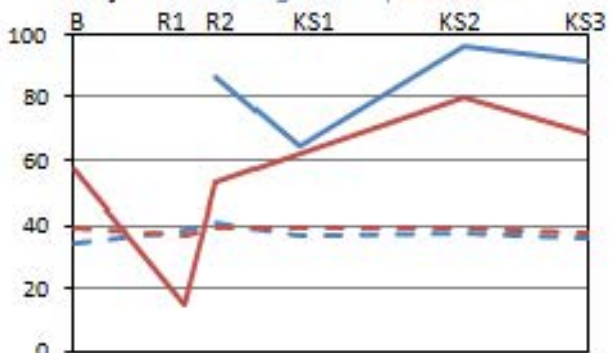Trajectories: English = F; Maths=A

Steven: Boy, Group 1
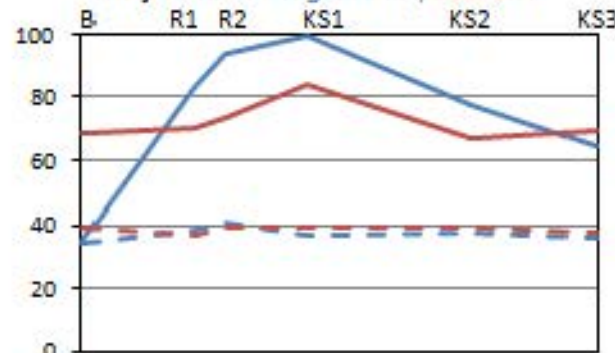Trajectories: English = E; Maths=B

Abdi: boy, Group 1
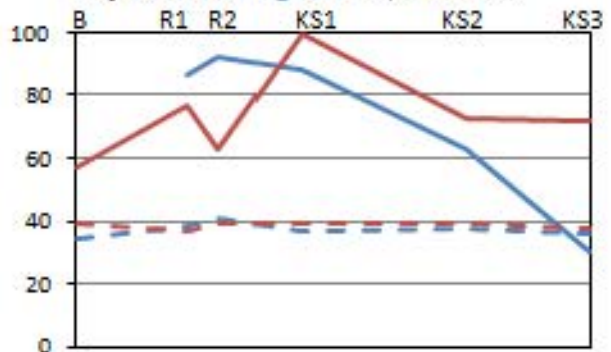Trajectories: English = E; Maths=E
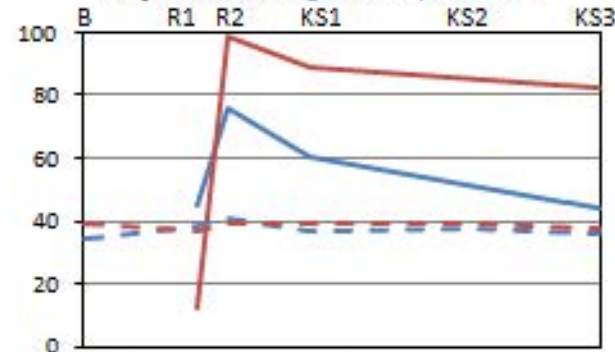
Mark: boy, Group 1
Trajectories: English = D; Maths=A

Jarell: boy, Group 1
Trajectories: English = C; Maths=D
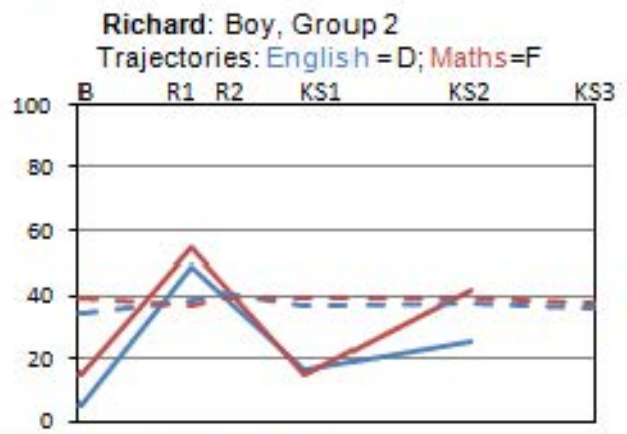
Rajnesh: boy, Group 1
Trajectories: English = D; Maths=B

B = baseline age 3; **R1** = entry reception age 5; **R2** = end of reception age 6; **KS1** =Key Stage 1 age 7; **KS2** = Key Stage 2 age 11; **KS3** = Key Stage 3 age 14

93

Group 2: low SES, predicted attainment

Fareeda: girl, Group 2
Trajectories: English = B; Maths=B

Bunmi: girl, Group 2
Trajectories: English = D; Maths=F

Ebun: girl, Group 2
Trajectories: English = D; Maths=C

Susan: girl, Group 2
Trajectories: English = E; Maths=A

Amina: girl, Group 2
Trajectories: English = F; Maths=E

John: Boy, Group 2
Trajectories: English = F; Maths=F

Cristopher: boy, Group 2
Trajectories: English = E; Maths=A

Richard: Boy, Group 2
Trajectories: English = D; Maths=F
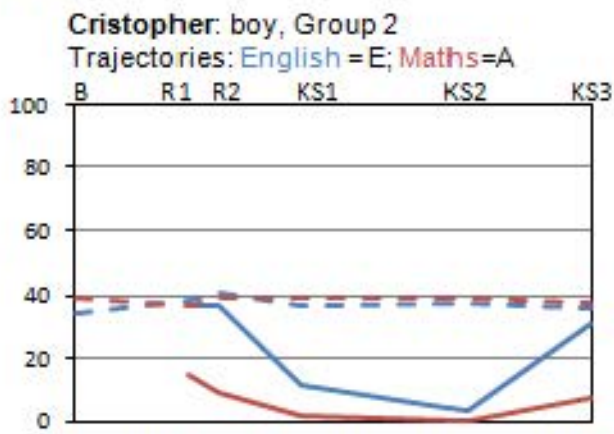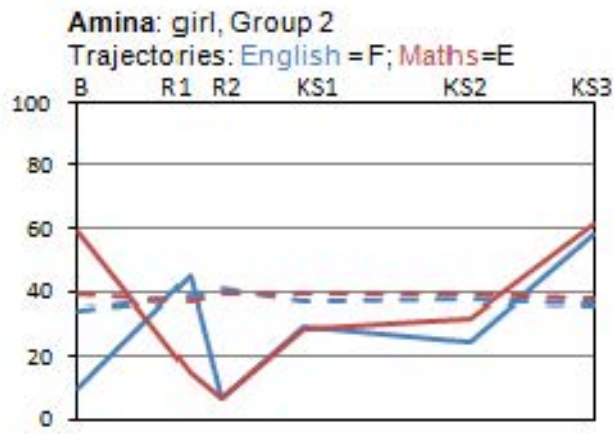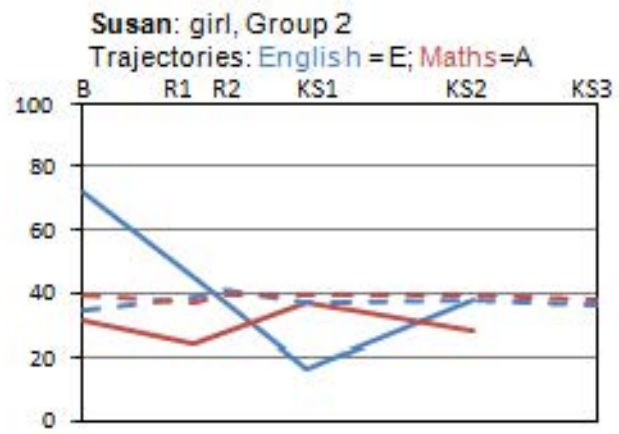
B = baseline age 3; R1 = entry reception age 5; R2 = end of reception age 6; KS1 = Key Stage 1 age 7; KS2 = Key Stage 2 age 11; KS3 = Key Stage 3 age 14

Patrick: boy, Group 2
Trajectories: English = D; Maths=D
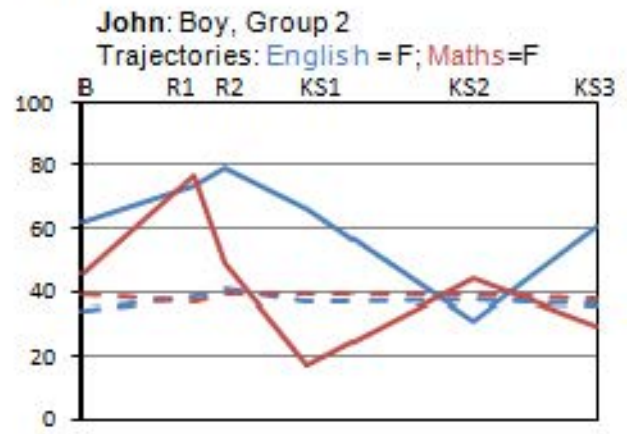
Ted: Boy, Group 2
Trajectories: English = C; Maths=F

Harry: boy, Group 2
Trajectories: English = A; Maths=F
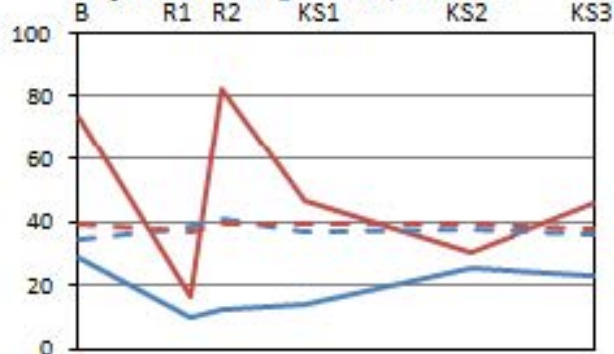
Hamid : Boy, Group 2
Trajectories: English = C; Maths=D
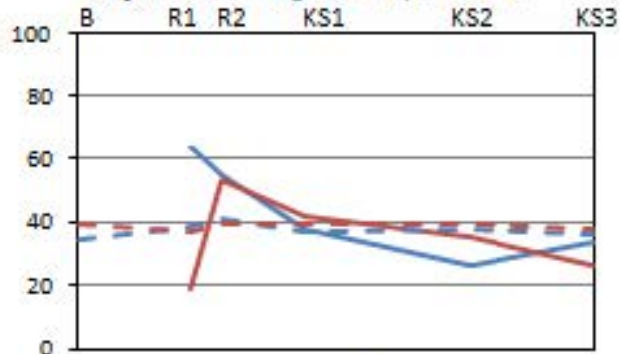
Tom: boy, Group 2
Trajectories: English = F; Maths=D
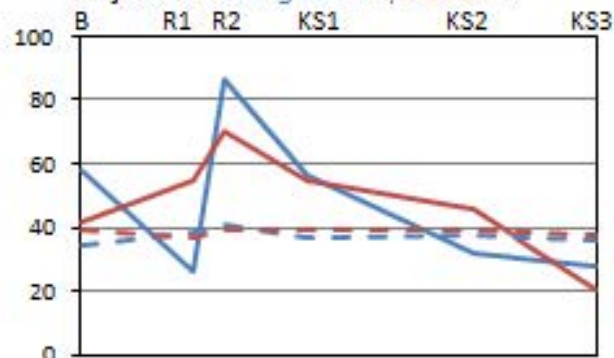
Jamal : Boy, Group 2
Trajectories: English = F; Maths=F
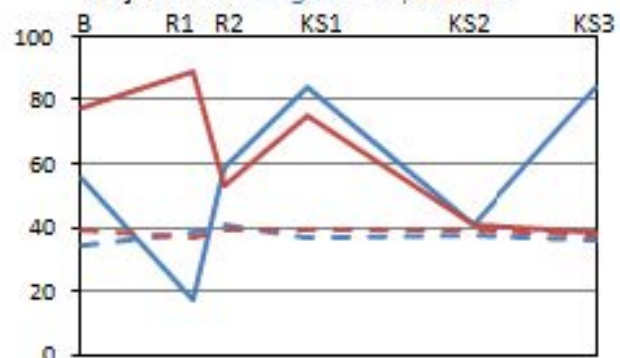
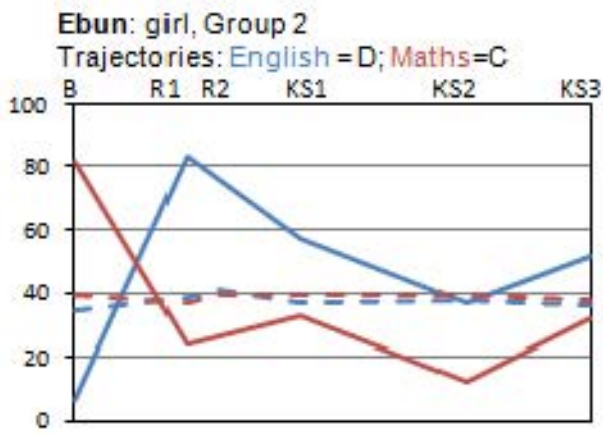**Tremaine**: boy, Group 2
Trajectories: English = E; Maths=C
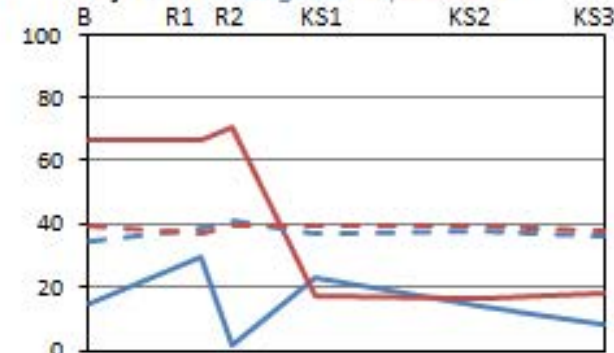
B = baseline age 3; **R1** = entry reception age 5; **R2** = end of reception age 6; **KS1** =Key Stage 1 age 7; **KS2** = Key Stage 2 age 11; **KS3** = Key Stage 3 age 14

95

Subash: boy, Group 3
Trajectories: English – E; Maths –C

Group 4: high SES, predicted attainment

Abby: girl, Group 4
Trajectories: English = C; Maths =C

Imogene: girl, Group 4
Trajectories: English = A; Maths =A
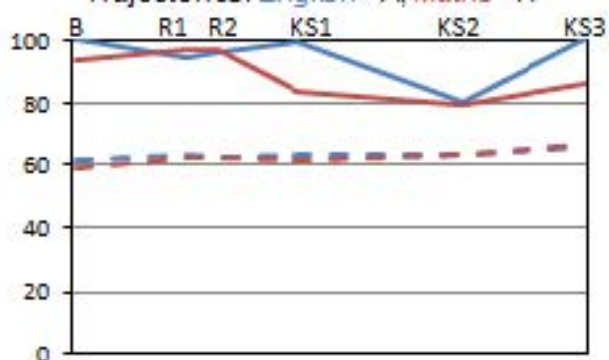
Breona: girl, Group 4
Trajectories: English =F; Maths =D
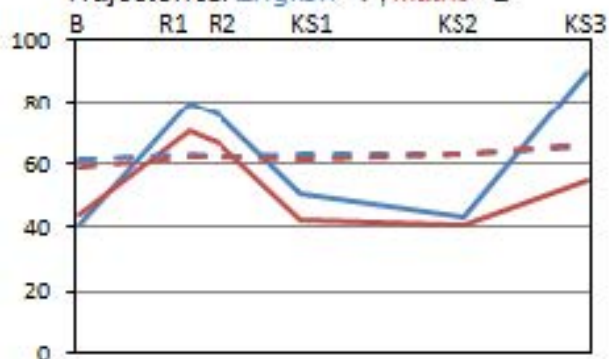
Lucas: boy, Group 4
Trajectories: English =E; Maths =F
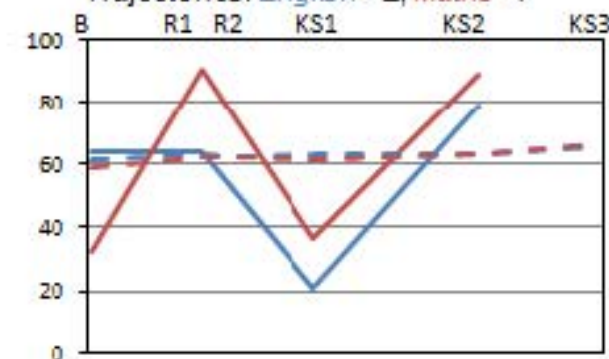
Benjamin: boy, Group 4
Trajectories: English =B; Maths =B
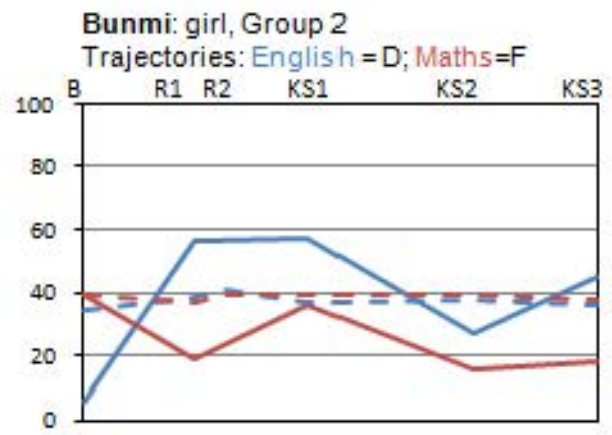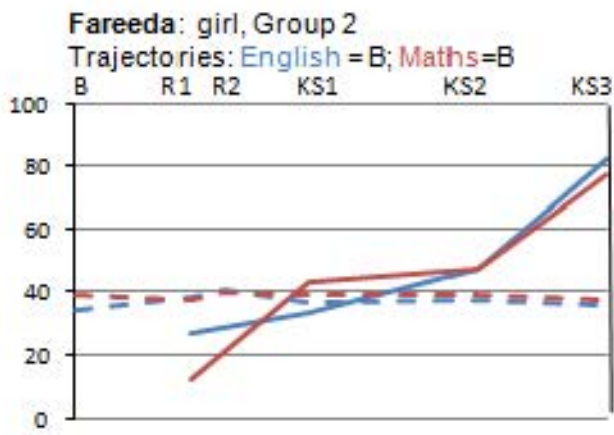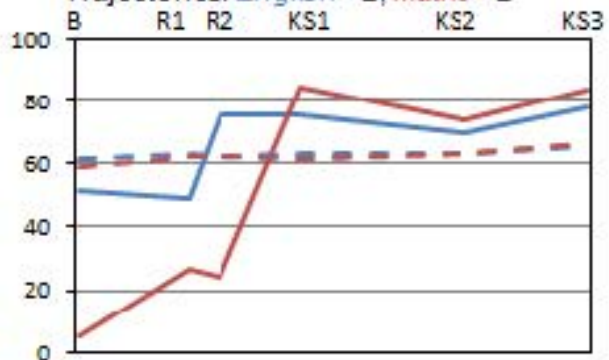

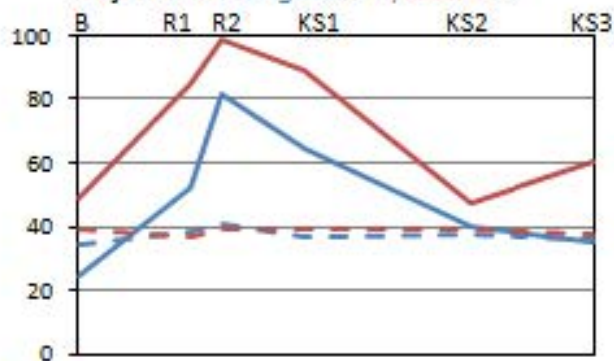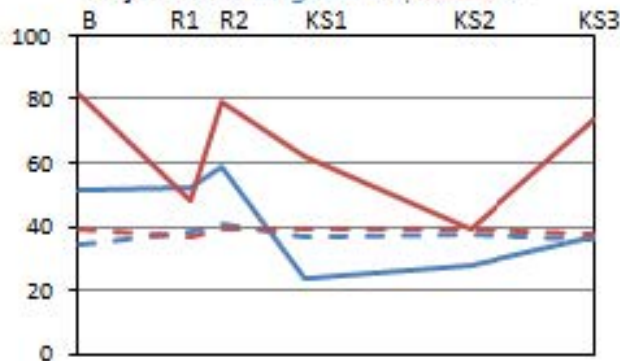**Jason** : Boy, Group 4
Trajectories: English =E; Maths =C
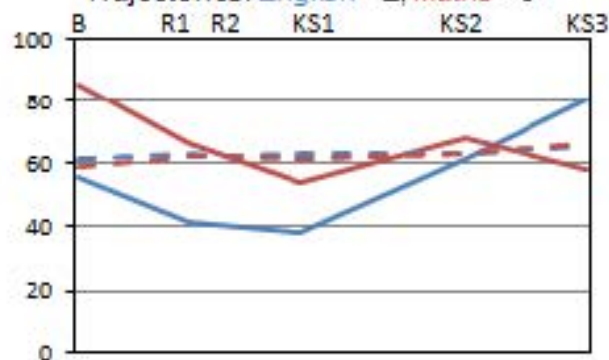
B = baseline age 3; **R1** = entry reception age 5; **R2** = end of reception age 6; **KS1** =Key Stage 1 age 7; **KS2** = Key Stage 2 age 11; **KS3** = Key Stage 3 age 14
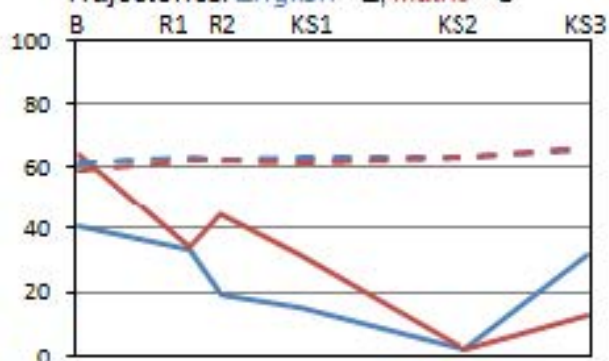
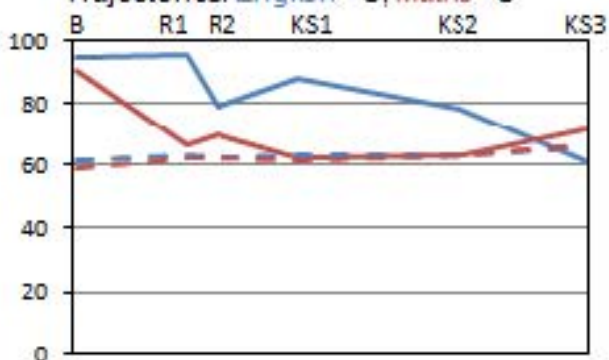# Appendix 6: Family demographics during pre-school years, primary years and secondary years

	Name	Group1: low SES, high attainment							
		Pre-school period						**Key Stage 1**	**Key Stage 2**
	Name	**Early HLE[27]**	**Mothers' qualification**	**Fathers' qualification**	**Mothers' employment**	**Fathers' employment**	**Family social class pre-school**	**Family social class**	**Family social class**
Girls	Charley	1	None	None	Part time	Fulltime	Semi skilled	Semi skilled	Semi skilled
	Natalie	1	None	-	Not working	-	Never worked	Professional	Professional
	Tanya	1	None	-	Part time	-	Unskilled	Unskilled	Semi Skilled
	Sharlene	2	None	None	Fulltime	Not employed	Semi skilled	Unemployed	Semi skilled
	Reanna	2	None	None	Fulltime	Fulltime	Semi skilled	Non manual skilled	Non manual skilled
	Anjali	3	16 academic	16 academic	Part time	Fulltime	Semi skilled	Professional	Professional
	Ife	3	Degree	-	Not working	-	Semi skilled	Non manual skilled	Professional
	Leanna	4	Vocational	-	Not working	-	Semi skilled	Unemployed	Semi skilled
	Brenda	4	16 academic	None	Not working	Fulltime	Semi skilled	Semi skilled	Semi skilled
	Shelly	4	None	None	Not working	Not employed	Semi skilled	Non manual skilled	Manual skilled
	Martha	5	Vocational	-	Not working	-	Semi skilled	Semi skilled	Semi skilled
	Asya	4	None	-	Not working	-	Never worked	Unemployed	Unemployed
Boys	Jarell	2	16 academic	None	Fulltime	Fulltime	Semi skilled	Non manual skilled	Professional
	Rajnish	2	None	None	Not working	Part time	Semi skilled	Unskilled	Semi skilled
	Steven	2	None	None	Not working	Part time	Semi skilled	Semi skilled	Semi skilled
	Abdi	2	18 academic	18 academic	Not working	Not employed	Never worked	Never worked	Never worked
	Mark	3	16 academic	None	Not working	Fulltime	Unskilled	Unemployed	Unemployed
	Shaquille	4	16 academic	-	Part time	-	Semi skilled	Professional	Not working
	Peter	4	16 academic	Vocational	Part time	Fulltime	Semi skilled	Skilled manual	Manual skilled
	Robert	4	Vocational	-	Fulltime	-	Semi skilled	Semi skilled	Semi skilled

---

[27] The early years home learning environment HLE scale runs from 0-49; the frequency of each of the activities being coded on a scale of 0-7 (0 = *not occurring*, 7 = occurring *very frequently* (Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2008); HLE 1=0-13; 2=14-19; 3=20-24; 4=25-32; 5=33-45.

		Group 2: low SES, predicted attainment							
		Pre-school period						Key Stage 1	Key Stage 2
	Name	**Early HLE**	**Mothers' qualification**	**Fathers' qualification**	**Mothers' employment**	**Fathers' employment**	**Family social class**	**Family social class**	**Family social class**
Girls	Amina	1	None	-	Not working	-	Never worked	Never worked	Never worked
	Fareeda	4	16 academic	16 academic	Not working	Fulltime	Semi skilled	Semi skilled	Manual skilled
	Bunmi[1]	4	None	-	Not working	-	Never worked	Never worked	Never worked
	Ebun[1]	4	None	-	Not working	-	Never worked	Never worked	Never worked
	Susan	5	16 academic	-	Part time	-	Semi skilled	Unemployed	Unemployed
Boys	John	2	16 academic	16 academic	Fulltime	Fulltime	Semi skilled	Non manual skilled	Professional
	Cristopher	2	None	Vocational	Not working	Fulltime	Manual skilled	Manual skilled	Manual skilled
	Patrick	2	Vocational	Vocational	Not working	Self employed	Manual skilled	Unemployed	Non manual skilled
	Ted	2	None	-	Not working	-	Never worked	Never worked	Never worked
	Harry	2	None	None	Part time	Fulltime	Semi skilled	Professional	Professional
	Hamid	2	16 academic	16 academic	Not working	Not employed	Never worked	Never worked	Never worked
	Jamal	2	16 academic	-	Not working	-	Semi skilled	Unemployed	Non manual skilled
	Tremaine	2	None	-	Not working	-	Semi skilled	Unemployed	Professional
	Tom	3	16 academic	None	Not working	Fulltime	Semi skilled	Manual skilled	Manual skilled
	Richard	3	None	-	Not working	-	Never worked	Never worked	Never worked

		Group 3: high SES low attainment							
		Pre-school period						Key Stage 1	Key Stage 2
	Name	**Early HLE**	**Mothers' qualification**	**Fathers' qualification**	**Mothers' employment**	**Fathers' employment**	**Family social class**	**Family social class**	**Family social class**
Girls	Anna	3	Degree	18 academic	Self employed	Self employed	Professional	Professional	Professional
	Gimbya	3	Vocational	Vocational	Part time	Part time	Professional	Professional	Professional
	Ella	3	Vocational	18 academic	Part time	Fulltime	Professional	Professional	Professional
	Helena	4	Degree	Degree	Part time	Fulltime	Professional	Professional	Professional
	Laurie	4	18 academic	Vocational	Not working	Self employed	Professional	Professional	Professional
	Marcy	5	Degree	18 academic	Part time	Fulltime	Professional	Professional	Professional
Boys	Sean	2	16 academic	16 academic	Part time	Fulltime	Professional	Professional	Professional
	Subash	1	None	16 academic	Fulltime	Self employed	Professional	Professional	Professional
	Alex	3	18 academic	18 academic	Fulltime	Fulltime	Professional	Professional	Professional

		Group 4: high SES, predicted attainment								
		Pre-school period							Key Stage 1	Key Stage 2
	Name	Early HLE	Mothers' qualification	Fathers' qualification	Mothers' employment	Fathers' employment	Family social class	Family social class	Family social class
Girls	Breona	3	16 academic	-	Part time	-	Professional	Professional	Professional
	Abby	5	Degree	18 academic	Part time	Fulltime	Professional	Professional	Professional
	Imogene	5	Degree	Degree	Self employed	Fulltime	Professional	Professional	Professional
Boys	Lucas	2	Degree	Degree	Part time	Fulltime	Professional	Professional	Professional
	Benjamin	3	Degree	Degree	Part time	Fulltime	Professional	Professional	Professional
	Jason	3	Degree	16 academic	Fulltime	Fulltime	Professional	Professional	Professional

Appendix 7: Child demographics during pre-school years

| | | Group1: low SES, high attainment | | | |
| | | Pre-school period | | | |
	Name	Birth weight [28]	Health problems [29]	Developmental problems [30]	Behavioural problems [31]
Girls	Charley	-	0	3	3
	Natalie	1	0	3	2
	Tanya	2	0	3	3
	Sharlene	-	0	3	3
	Reanna	2	2	3	3
	Anjali	1	0	3	3
	Ife	2	0	3	3
	Leanna	1	0	3	3
	Brenda	2	0	3	1
	Shelly	2	0	3	3
	Martha	1	1	3	3
	Asya	1	1	3	3
Boys	Jarell	2	1	3	3
	Rajnish	1	0	3	3
	Steven	2	1	1	3
	Abdi	2	0	3	3
	Mark	2	1	3	1
	Shaquille	2	1	3	3
	Peter	2	0	3	3
	Robert	2	0	3	3

| | | Group 2: low SES, predicted attainment | | | |
| | | Pre-school period | | | |
	Name	Birth weight	Health problems	Developmental problems	Behavioural problems
Girls	Amina	-	0	3	3
	Fareeda	2	0	3	3
	Bunmi	1	0	3	3
	Ebun	0	0	3	3
	Susan	0	0	3	3
Boys	John	2	1	3	3
	Cristopher	2	0	3	1
	Patrick	2	0	3	3
	Ted	2	2	3	3
	Harry	2	3	1	3
	Hamid	2	3	1	3
	Jamal	2	0	3	3
	Tremaine	2	0	1	3
	Tom	2	1	3	3
	Richard	2	0	3	3

---

[28] Birth weight classification (Scott & Carran, 1989): 0= fetal infant very low birth weight (<1500 grams); 1= low birth weight (1500 – 2500 grams); normal birth weight (2500 and above).

[29] 0 = no health problems; 1= 1 health problem; 2 = 2 health problems; 3= 3 or more health problems.

[30] 1= 1 developmental problem; 2 = 2 or more developmental problems; 3= no developmental problems.

[31] 1= 1 behavioural problem; 2 = 2 or more behavioural problems; 3= no behavioural problems.

		Group 3: high SES, low attainment			
		Pre-school period			
	Name	**Birth weight**	**Health problems**	**Developmental problems**	**Behavioural problems**
Girls	Anna	2	0	3	3
	Gimbya	1	0	3	3
	Ella	2	0	3	1
	Helena	2	0	3	3
	Laurie	2	0	3	3
	Marcy	2	0	3	3
Boys	Sean	2	0	3	3
	Subash	2	0	3	1
	Alex	2	0	3	3

		Group 4: high SES, predicted attainment			
		Pre-school period			
	Name	**Birth weight**	**Health problems**	**Developmental problems**	**Behavioural problems**
Girls	Breona	0	0	3	3
	Abby	2	0	3	3
	Imogene	2	0	3	3
Boys	Lucas	2	0	3	3
	Benjamin	2	0	3	3
	Jason	2	0	3	3

Appendix 8: Overview of early years home learning environment (HLE), birth term, pre-school quality and primary school academic effectiveness

	Name	Early HLE[32]	Birth term[33]	Pre- school quality[34]	Primary school academic effectiveness[35] English	Maths
					Group 1: low SES, high attainment	
Girls	Charley	Low	Spring	Low	Below 1 Sd of mean	Below 1 Sd of mean
	Natalie	Low	Spring	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Tanya	Low	Summer	Medium	Within 1 Sd of mean	Above 1 Sd of mean
	Sharlene	Low	Spring	High	Above 1 Sd of mean	Above 1 Sd of mean
	Reanna	Low	Summer	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Anjali	Medium	Summer	High	Within 1 Sd of mean	Within 1 Sd of mean
	Ife	Medium	Autumn	Medium	Below 1 Sd of mean	Below 1 Sd of mean
	Leanna	High	Autumn	Medium	Above 1 Sd of mean	Above 1 Sd of mean
	Brenda	High	Summer	Medium	-	-
	Shelly	High	Spring	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Martha	High	Summer	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Asya	High	Summer	Home	Within 1 Sd of mean	Within 1 Sd of mean
Boys	Jarell	Low	Summer	High	Within 1 Sd of mean	Within 1 Sd of mean
	Rajnish	Low	Summer	Home	Within 1 Sd of mean	Within 1 Sd of mean
	Steven	Low	Summer	High	Above 1 Sd of mean	Within 1 Sd of mean
	Abdi	Low	Summer	High	Below 2 Sd of mean	Below 1 Sd of mean
	Mark	Medium	Summer	High	Within 1 Sd of mean	Within 1 Sd of mean
	Shaquille	High	Spring	Medium	-	-
	Peter	High	Autumn	Medium	Below 1 Sd of mean	Below 1 Sd of mean
	Robert	High	Spring	Medium	Within 1 Sd of mean	Above 1 Sd of mean

---

[32] We refer to three patterns of early years home learning environment (HLE): low early years HLE (0-19 points), medium early years HLE (20-24 points) and high early years HLE (25-45 points).

[33] Research, including EPPE 3-11, generally shows that the younger pupils in an academic year tend to have poorer academic attainment compared to their older peers (Mortimore et al., 1988; Sharp et al., 2009; Sylva et al., 2008). In almost all English Local Authorities the school year runs from September to July, which makes the oldest children in year groups those who were born during the Autumn term. Children who are Autumn born (September, October, November and December) more often attained the highest levels in their Key Stage 2 exams (33.9% compared to 23.3%) than the considerably younger Summer born children (May, June, July and August). EPPE 3-11 also found indications that a possible consequence of this difference in cognitive performance was that younger children had a greater chance of being identified as having a special education need (SEN) (Anders et al., 2010; Sammons et al., 2002b; Taggart et al., 2006; Sharp et al., 2009).

[34] The quality of pre-school settings was measured on the Early Childhood Environment Rating Scales (ECERS-R see Harms, Clifford & Cryer, 1998; ECERS-E see Sylva et al., 2003; Sylva et al., 2006).

[35] Using the analysis by Melhuish et al., (2006) that provided indicators of the academic effectiveness of all state primary schools in England from 2002 to 2004, EPPE 3-11 showed that pupils who attended an academically more effective primary school had significantly better outcomes for English and Maths, over and above child and family background (Sammons et al., 2008a; 2008b; 2008d).

	Name	Early HLE	Birth term	Pre-school quality	Group 2: low SES, predicted attainment Primary school effectiveness	
					English	Maths
Girls	Amina	Low	Autumn	High	Within 1 Sd of mean	Within 1 Sd of mean
	Fareeda	High	Spring	High	Within 1 Sd of mean	Within 1 Sd of mean
	Bunmi	High	Summer	Medium	Within 1 Sd of mean	Above 1 Sd of mean
	Ebun	High	Summer	Medium	Within 1 Sd of mean	Above 1 Sd of mean
	Susan	High	Autumn	Medium	Within 1 Sd of mean	Within 1 Sd of mean
Boys	John	Low	Autumn	Medium	Above 1 Sd of mean	Within 1 Sd of mean
	Cristopher	Low	Summer	Medium	Above 1 Sd of mean	Above 1 Sd of mean
	Patrick	Low	Summer	Low	Above 1 Sd of mean	Within 1 Sd of mean
	Ted	Low	Spring	Low	Within 1 Sd of mean	Within 1 Sd of mean
	Harry	Low	Spring	Low	Within 1 Sd of mean	Below 1 Sd of mean
	Hamid	Low	Summer	Low	Within 1 Sd of mean	Within 1 Sd of mean
	Jamal	Low	Spring	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Tremaine	Low	Autumn	High	Below 1 Sd of mean	Below 1 Sd of mean
	Tom	Medium	Spring	Low	Within 1 Sd of mean	Within 1 Sd of mean
	Richard	Medium	Autumn	Medium	Within 1 Sd of mean	Above 1 Sd of mean

	Name	Early HLE	Birth term	Pre-school quality	Group 3: high SES, low attainment Primary school effectiveness	
					English	Maths
Girls	Anna	Medium	Autumn	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Gimbya	Medium	Spring	Medium	Above 1 Sd of mean	Within 1 Sd of mean
	Ella	Medium	Summer	Medium	Below 2 Sd of mean	Within 1 Sd of mean
	Helena	High	Summer	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Laurie	High	Summer	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Marcy	High	Summer	High	Within 1 Sd of mean	Above 1 Sd of mean
Boys	Sean	Low	Summer	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Subash	Low	Summer	Medium	Within 1 Sd of mean	Below 1 Sd of mean
	Alex	Medium	Summer	Medium	Above 1 Sd of mean	Above 1 Sd of mean

	Name	Early HLE	Birth term	Pre- school quality	Group 4: high SES predicted attainment Primary school effectiveness	
					English	Maths
Girls	Breona	Medium	Spring	Medium	Within 1 Sd of mean	Below 1 Sd of mean
	Abby	High	Spring	High	-	-
	Imogene	High	Spring	Medium	Above 1 Sd of mean	Above 1 Sd of mean
Boys	Lucas	Low	Autumn	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Benjamin	Medium	Spring	Medium	Within 1 Sd of mean	Within 1 Sd of mean
	Jason	Medium	Spring	Medium	Within 1 Sd of mean	Above 1 Sd of mean

Appendix 9: CFCS questions for EPPSE full sample, quantitative trajectory analysis

1. Birth term: children 'succeeding against the odds' often seem to have been born in the Summer term, can we find this pattern true for full EPPSE sample of low SES children succeeding above prediction?
➔ *This analysis is possible with the EPPSE sample.*

2. Is the effect of excellent pre-school settings particularly strong for low SES boys (in CFCS they all went on to 'succeed against the odds'). Is this particularly true for boys from low SES homes that experienced a low early years home learning environment (HLE)? ➔ *Difficult to do and would require additional analyses. Caution due to very small numbers.*

3. A number of children who are not doing too well in school at age 11 (i.e. low SES as predicted and high SES below prediction) show a considerable improvement in their rating position between Key Stage 2 and Key Stage 3. In particular, this seems to be true for high SES children with attainment below prediction at age 11. Can we find a similar pattern among the full EPPSE sample, perhaps for sub-groups such as high SES with attainment below prediction? Additionally it might be useful to look at the academic effectiveness of the secondary schools attended by the CFCS sample?
➔ *KS3 has not been included in the trajectories analyses.*

4. In the perceptions of successful low SES parents and children, schools and teachers have provided them with sufficient and effective help with SEN, behavioural issues and less serious academic difficulties (such as booster classes and homework classes). In contrast, parents and 'vulnerable' children (both low and high SES) feel that schools did not do enough to help them deal with difficulties with school and learning. Can this be checked in the full sample?
➔ *There is no sub-group analyses planned e.g. SEN children. However, a paper on SEN children by Anders et al., is available.*

5. CFCS shows greater emphasis on rules and chores in low SES Black African and Black Caribbean families, with children (particularly for girls) 'succeeding against the odds', that seems to facilitate 'Self-regulation'. Can we find a similar pattern in full EPPSE sample of children 'succeeding against the odds'? Is this pattern related to gender and/or ethnic cultural heritage?
➔ *Because of the sample size of ethnic heritage sub-groups we are unfortunately unable to do any specific group comparison analysis.*

6. The CFCS show that many of the low SES families with children 'succeeding against the odds' have parents that have gained additional qualifications. In some cases this has even lead to changes in their SES. Do we find this pattern in the full set of children 'succeeding against the odds'?
➔ *As information on additional training or qualifications since child was in pre-school is available such an analysis is possible, it would however require data preparation.*

Appendix 10: Early years Home Learning Environment (HLE) index

The Early years HLE index is composed of the first seven of the measures below, specifically those deemed the most educationally orientated and has a scale of 0-49. The frequency of each of the activities is coded on a scale of 0-7 (0 = *not occurring*, 7 = occurring *very frequently*) (Melhuish, Phan, Sylva, Sammons, Siraj-Blatchford, & Taggart, 2008).

The specific items associated with the Early years Home Learning Environment (HLE) index

Early Years Home Learning Environment (HLE)
- Going to the library;
- being read to;
- learning activities with the alphabet
- learning activities with numbers/shapes
- learning activities with songs/poems/nursery rhymes
- playing with letters/numbers
- painting or drawing
- playing with friends at home
- playing with friends elsewhere
- visiting relatives or friends
- shopping with parent
- watching TV
- eating meals with the family
- having a regular bedtime.