RESEARCH

# The Impact of Study Support

A report of a longitudinal study into the impact of participation in out-of-school-hours learning on the academic attainment, attitudes and school attendance of secondary school students

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**DEPARTMENT FOR EDUCATION AND SKILLS**

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*All men desire naturally to know.*
*Aristotle*

*There is no such whetstone, to sharpen a good whit and encourage a will to
Learning as is praise.*
*Roger Ascham: "The Schoolmaster" 1570*

## Department for Education and Skills

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# The Impact of Study Support

# Executive Summary

## Introduction

This report describes the findings from a three-year longitudinal evaluation - the *Study Support National Evaluation and Development Programme* (SSNEDP) - on the impact of participation in study support (out of school hours learning) on the academic attainment, attitudes and school attendance of secondary school pupils. The programme was set up by the Department for Education and Skills (formerly known as the Department for Education and Employment) and the Prince's Trust in autumn 1997, having grown out of a research consortium of the Prince's Trust, Tower Hamlets and Sandwell local education authorities, and the Merseyside Training and Enterprise Council. In 1999, the Prince's Trust transferred management of the programme to the National Youth Agency.

The evaluation was undertaken by the Quality in Education Centre at the University of Strathclyde between autumn 1997 and summer 2000. It tracked two cohorts, totalling over 8,000 pupils, from 52 schools (44 in England, six in Wales and two in Scotland); the larger cohort was tracked from Year 9 through to their GCSEs and the smaller cohort from Year 7 through to their KS3 SATs. Qualitative research to support the main statistical data was undertaken by The National Foundation for Educational Research with Create Consultants and by the Critical Friends attached to the *National Evaluation and Development Programme.*

## Key Findings

The research found firm evidence in all the schools studied that pupils who participate in study support do better than would have been expected from baseline measures in academic attainment, attitudes to school and attendance at school. Study support appears especially effective for students from minority ethnic communities. Specifically, the research has produced the following results:

### GCSE performance

**Study support has effects which are significant and substantial for GCSE performance especially on Best 5 scores, on the number of A-C passes and on Maths and English GCSE.**

**The overall effect of participation in study support is on average three and a half grades on Best 5 score or one A-C pass more than for students of equal ability who did not participate.**

**Study support can improve attainment in Maths and English by half a grade.**

**Study support has effects which are significant on KS3 SATs scores. Participation improves Maths attainment by one third of a level and Science attainment by three quarters of a level.**

**GCSE attainment is most affected by Subject-focussed, Drop-in provision and Easter revision courses.**

Study support related to curriculum subjects shows strong effect on attainment but so also do sport, aesthetic activities and drop-in sessions as well as other activities.

### Pupils who benefit most

**All students who participate benefit from study support**

**Broadly boys and girls benefit from study support to roughly the same extent.**

**Students from minority ethnic groups participate in study support rather more than White students, and study support has a much more pronounced effect on their GCSE performance than on White students' results.**

There are however complex interactions between ethnicity and gender.

### Attitudes to school

**Participation in study support has a favourable effect on attitudes to school.**

While Drop-in and Subject-focussed study support in Yr.11 have the biggest effect on attitudes, there are also effects from Sport and Aesthetic activities. Self esteem and willingness to participate in class are particularly influenced by study support, by participation in both Yr.10 and Yr.11.

## School attendance
**Irrespective of students' backgrounds or school attended, participation in some forms of study support has a positive impact on school attendance.**
Subject focussed study support and Drop-in activities in Yr.11 have the largest effect on attendance in Yr.11. Sport has an effect in some schools.

## Whole school value added
**Study support has an impact at whole school level when participation rates are high.**
The effects of study support are cumulative, incremental, and widespread:

- Cumulative – the more different forms of activity a student takes part in, the greater the effect on attainment, attitudes and attendance
- Incremental – participation in study support in one year influences attainment, attitudes and school attendance in later years.
- Widespread – both subject-focussed activities and non-subject-focussed ones such as sport and aesthetic activities influence attainment, attitudes and attendance.

## Participation rates
**Participating in study support increases the likelihood of subsequent participation.** Gender, prior attainment, and ethnicity do not influence to any significant extent the likelihood of a pupil choosing to participate in study support, but the school attended does have a major effect on the likelihood of participation.

There was a wide variation in participation rates in the schools in this study. Schools which achieved high participation rates:

- had a whole school approach to study support and included it in the school improvement plan
- coordinated the provision through a senior member of staff
- offered a wide range of challenging and interesting activities

- promoted and publicised the activities systematically to students, staff, parents and the community.

Effective schools followed this advice:

*"Get teachers they like and a good atmosphere. Combine fun and sports and stuff with education." (Yr.11 boy, Willows High School, Cardiff)*

## Reasons for participation

The single factor that emerged most consistently from discussions with students and staff was the voluntary nature of study support. Students like choosing to go. They value the relaxed informal relations with staff; the opportunity to work with peers; more time and help to do work; access to learning resources; and being treated as adults and given responsibility for their own learning.

*"It's a place to work with your friends. You can work at your own pace and it is different from the classroom." (Yr.11 boy, Oaklands School, Tower Hamlets)*

*"By teaching others to mind map, or whatever, it fixes it more firmly in your mind." (Yr.9 boy, Yardleys School, Birmingham)*

*"We enjoy the Science CREST award. We want to achieve the award. It makes us think and we are not told what to do." (Yr.9 girls, Lister School, Newham).*

## Reasons for the effectiveness of study support

Study support is effective because of its ethos. Voluntary attendance by students and staff creates a set of relationships and a climate which encourage learning. Through experiencing success in leisure pursuits or through new ways of learning students move towards becoming self-regulated learners.

*"It is not the teacher teaching us like at school. We do whatever we feel will help us." (Student, Sarah Bonnell School, Newham)*

*"It has made me more confident and independent. Now I can stand in front of my entire Year group and do my speaking and dancing. A while ago I couldn't do that." (Yr.11 girl, Shirelands Language College, Sandwell)*

*"A climate of learning is taking off. There are lots of kids who don't care about peer pressure. There are children in the study centre who wouldn't have been there three of four years ago. It's becoming habitual."*
*(Teacher, Campion Catholic High School, Liverpool*

## Conclusion and Recommendations

Study support makes a difference. It has an impact on three key aspects of students' school careers:

- attainment at GCSE and KS3 SATs
- attitudes to school
- attendance at school.

These findings were consistent for all groups of students in all schools in the study. Although our sample of schools is heavily biased to those serving more disadvantaged populations, benefits to other groups of students regardless of geography, socio-economic status, gender and ethnic background are likely. We believe that study support has a much wider and far-ranging potential than in the schools represented in this study.

We conclude that the findings of this study are educationally highly significant. The effectiveness of study support derives not just from more time spent in study and closer support from staff but from the ethos and consequent engagement of students. Therefore the voluntary participation of students and of teachers and other staff is a key element in its effectiveness. Study support can help to improve schools and can influence the attitudes to learning of teachers and parents as well as students.

We recommend that students should be involved in, and that schools should take a whole school view of the planning, evaluation and management of study support. We further recommend that study support should be seen as an element of all initiatives to raise achievement and promote social inclusion. Professional development of staff, coordinated planning and assured long-term funding are therefore necessary.

# Chapter 1  Origins of the Project

Summary
This study developed from the work by the Prince's Trust in collaboration with the University of Strathclyde and a number of LEAs.  It was funded by the Department for Education and Skills, from 1997, to evaluate the effect of study support in raising achievement. The identification and dissemination of good practice ran alongside the research work.

## 1.1  The First Shoots

Before 1990 the term 'study support' would have been unknown to all but a very small handful of schools.  Opportunities for young people to learn outside the classroom existed through traditional extra curricular provision; in the Saturday and supplementary school movement within minority ethnic communities; and within the field of community education.

Strathclyde Region in Scotland, in 1991, was the first local authority to take the lead in financing and monitoring and evaluating out-of-hours learning under the generic title of 'supported study'.  An evaluation, commissioned from the Quality in Education Centre, University of Strathclyde (QIE), provided considerable qualitative evidence of raised self-confidence, increased motivation and enjoyment of learning among students and a high degree of enthusiasm among participating teachers. (MacBeath, 1992)

The Prince's Trust brought together a number of local initiatives under the umbrella term of 'study support' through introducing a UK-wide programme of small-scale grant making, publications, and national and regional conferences.

During 1996/97 a group, drawn from universities, Ofsted, local authorities, schools and the Prince's Trust, worked on writing a Code of Practice for study support for secondary schools (MacBeath, 1997).  Its purpose was to increase the credibility and rigour of study support, to provide systematic guidance on issues of quality, and to illustrate how centres could evaluate their impact and be confident in telling their story to external evaluators such as Ofsted.  The Code of Practice was launched in November 1997 with the support of the Department for Education and Skills and a foreword by the Prime Minister.

### 1.1.1 A national policy

With the election of the new Labour government in May 1997, the potential for out-of-hours learning to contribute to the raising of levels of educational achievement was formally recognised. The Department's publication '*Extending Opportunity: a national framework for study support'* (1998) was significant in a number of respects:

- it endorsed the term 'study support' as the generic descriptor for out-of-school-hours activities with a learning purpose

- its definition of study support was inclusive and encompassed a wide range of achievement, not merely academic or school subjects but sporting, aesthetic and leisure pursuits

- it celebrated, through its choice of images, group achievement and teamwork as well as individual achievement

- it reinforced the contribution to be made by youth services, public libraries, museums and galleries, arts and sports organisations, and business to supporting young people's learning.

At the same time the government announced the creation of the New Opportunities Fund (NOF) as the sixth "good cause" to receive and disburse monies from the national lottery. Out-of-school-hours learning was designated as one of the recipients of the educational tranche of the funds available, ultimately £205M was made available across the United Kingdom. Additionally the Department announced in November 1997 that £1M would be available from April 1998 to fund 50 projects in schools and other centres to pilot the arrangements for nationwide NOF funding.

## 1.2 The Establishment of the National Evaluation and Development Programme

During 1996 The Prince's Trust, in partnership with Tower Hamlets and Sandwell LEAs and Merseyside Training and Enterprise Council, developed a programme to evaluate the effectiveness of study support. In the summer of 1997 with the Department's interest and funding a large-scale pupil tracking study was incorporated into this evaluation strategy. In the autumn term of 1997 the framework for this research programme was established with the title '*The Study Support National Evaluation and Development Programme' (SSNEDP)*. The aims of the programme were to:

- ascertain the impact of participation in study support activities on the attainment, attitudes and attendance of a large sample of students in secondary schools serving disadvantaged areas

- develop and disseminate models of good practice, through the support to schools of Critical Friends, and training events and publications.

### 1.2.1  Critical Friends

The developmental aspects of the Programme were undertaken by a team of eight 'Critical Friends'.  The notion of the Critical Friend was developed from previous work by MacBeath in the Improving School Effectiveness Project (MacBeath, 1998) research project in Scotland (MacBeath, 2001).  The role of the Critical Friend is to support schools with the process of self-evaluation.  In the SSNEDP their central task was to support schools in extending and enhancing their study support provision using the framework provided by the Study Support Code of Practice.

In this study records of visits were made from the Critical Friends' observations and discussions with staff which included data on how the schools were managing, organising and delivering study support.  Each school was offered four days of the Critical Friend's time over the three years of the Programme.

The schools also met termly throughout the Programme, twice in residential conferences.  These training events were organised by the staff of the SSNEDP and staffed by the Critical Friend and the research team from QIE.  The objectives were to feedback emergent research findings, to disseminate good practice and to foster the self-evaluation aspects of the programme.

## 1.3  Organisation and Management

Combining research with a development project required a demarcation of the research and development strands for the research to be seen as objective, disinterested and independent.  This was ensured through:

- a data gathering process carried out using standardised instruments, administered to a strict protocol, and data entered and analysed by a different team from the development/Critical Friend team

- the appointment of two independent readers, on behalf of the Department – John Gray, Director of Research at Homerton College, Cambridge, and Ralph Tabberer, then of the National Foundation for Educational Research (NFER)

- the commissioning of an independent qualitative set of case studies conducted jointly by NFER and Create Consultants, on a subset of the schools in the research project.

The varied origins of the work were reflected in the three main strands of activity that developed over the three years from autumn 1997 to summer 2000 and the complex set of relationships that was established. The SSNEDP was a part of the overall study support programme of the Prince's Trust. It was funded by the Department, the Trust itself and by contributions from the LEAs whose schools were partners in the programme.

In April 1999 as a result of a review of its operations and in the light of the fact that its original objectives had been achieved, the Trust transferred to the National Youth Agency the management of the SSNEDP and seconded its staff to continue the work. This arrangement continued until the end of the Programme.

# Chapter 2  Methodology and Sample

Summary
The study followed the standard school effectiveness model, albeit applied to out-of-school-hours learning.  Two cohorts of c.8000 students in total were tracked for three years.  51 inner city secondary schools provided baseline data of background information and measures of academic attainment, attitudes and school attendance on individual students.  Similar outcome measures were gathered and linked to data on the participation of the individual students in various types of study support.  Multiple regression analysis was used to identify the factors influencing the outcomes, in particular the effects of study support.

## 2.1  The Quantitative Research Design

The study is the first to have used a classic school effectiveness design to apply to out-of-school-hours learning.  The purpose was to assess value-added not 'of the school' but of 'out-of-school'.  As with school effectiveness studies this required:

- collecting baseline measures of student attainment, attendance and attitudes from the outset
- gathering student background data such as gender, ethnic group and age
- building a database to hold data on individual students
- revisiting students after a given period of time (nearly three years) to assess progress against predicted, or normative, standards
- comparing value-added as between study support attenders and non-attenders.

### 2.1.1  The sample schools (*The Partner  schools*)

Two groups of schools were involved in the research.  The first group, known as the Partner schools, were drawn from nine Local Education Authorities in England, two in Scotland and one in Wales.  Due to the Prince's Trust's focus on the more disadvantaged young people, the sample was heavily biased towards disadvantaged areas in the major conurbations.  The scope of the Trust's charitable objectives also excluded work with young people of primary school age – the sample was therefore limited to secondary schools.  No special schools were included in the sample although a number of the schools had large Special Educational Needs (SEN) departments.

The sample was an opportunity sample of schools nominated by those LEAs that were willing to make a three year financial commitment towards the costs of the developmental aspects of the SSNEDP, and designate an LEA officer to act as a local coordinator.

The final composition of the research sample is given in Table 2.1.

*Table 2.1  The Partner schools*

| |
|---|
| **Bedfordshire:** John Bunyan Upper School and Community College |
| **Birmingham:** Byng Kenrick Central School, Golden Hillock School, Heartlands High School, Moseley School, Queensbridge School, Shenley Court School, Swanshurst School, Yardleys School |
| **Camden:** Hampstead School, Haverstock School, South Camden Community College |
| **Cardiff:** Cathays High School, Fitzalan High School, Glan Ely High School, Rumney High School, St Illtyd's High School, Willows High School |
| **County Durham:** King James First High School, Stanley School Of Technology |
| **Liverpool:** Anfield Community Comprehensive School, Broadgreen Community Comprehensive School, Campion Catholic High School For Boys, Fazakerley High School |
| **Newcastle upon-Tyne:** Gosforth High School, Kenton School, Walker Comprehensive School, West Denton High School, Westgate Community College |
| **Newham:** Forest Gate Community School, Lister School, Sarah Bonnell School, Royal Docks Community School |
| **North Lanarkshire:** St Aidan's High School |
| **Sandwell:** Bristnall Hall High School, Churchfields High School, George Salter High School, Perryfields High School, Shirelands Language College, St Michael's C of E High School, Tividale High School and Community College, Warley High School |
| **Sheffield:** Chaucer Secondary School, The Herries School, Yewlands School |
| **Tower Hamlets:** Central Foundation Girls School, Langdon Park School, George Green's School, Mulberry School for Girls, Oaklands School |
| **West Lothian:** St Kentigern's Academy |

## 2.1.2  About the schools

Of the 52 schools that began as Partners in the research project one was closed during the study and its data has been excluded from the sample.  Another was closed and was relaunched as a "Fresh Start" school in the summer of 2000 immediately after the end of the data collection phase.  Its data has been included.  One school changed its location and its name.  Its data has been included.  Seven schools were deemed by Ofsted to have serious weaknesses during the period autumn 1997 to summer 2000.  Four of these were in "special measures" for part of this period.  All the data from these schools has been included.

All the schools were comprehensives, either maintained or voluntary aided (or the Scottish or Welsh equivalents). The majority, 35 out of 51, of the schools were 11–16 mixed. 17 had sixth forms, of which three were high schools with intakes starting at Yr.9. Four schools were for girls only and one for boys only.

### 2.1.3 Free school meals

These were schools serving disadvantaged populations. The level of eligibility for free school meals (FSM) is the normal proxy measure of disadvantage. The national average is 17% and Ofsted regard values above 32% as indicative of severe disadvantage Levels of FSM take up ranged from 10% to 81%.. Table 2.2 shows the distribution of FSM take-up.

*Table 2.2  Distribution of uptake of free school meals*

|  | Numbers of sample schools with % of students in receipt of FSM by range | | | |
|---|---|---|---|---|
|  | 10 –29% | 30-49% | 50-69% | 70-90% |
| **Totals** | 9 | 27 | 11 | 4 |

### 2.1.4 Ethnic minority students

The percentage of students from minority ethnic groups and/or speaking English as an additional language varied widely across the sample, reflecting the location of the schools. In a number of the schools in Newham and Tower Hamlets it was over 80%. There were a small number of schools, such as those in Scotland, with virtually no pupils from minority ethnic groups.

### 2.1.5 GCSE results

In 1997 prior to the start of the research, the level of academic attainment, as measured by the percentage of students obtaining 5 A-C GCSE passes, was well below the national average in the majority of the sample schools. However it was, for many of the schools, by no means below the average for schools with similar intakes. The range of percentages of students obtaining 5 A-C grades in summer 1997 was from 2% to 56%, the national average that year was 45.1%.

*Table 2.3  Distribution of % 5-A-C GCSE passes across the sample*

| % of students obtaining 5 A-C passes in 1997 | Under 10% | 10-19% | 20-29% | 30-39% | 40-49% | 50% and over |
|---|---|---|---|---|---|---|
| Number of schools | 2 | 14 | 24 | 4 | 2 | 3 |

Only figures for 49 schools, as 2 Scottish schools omitted because of different examinations system

## 2.1.6  The student sample and data collected

The student sample consisted of the whole of the 1997 Yr.9 cohort (known as *the senior cohort*) in 45 schools and the whole of the 1997 Yr.7 cohort (known as *the junior cohort*) in 11 schools.  Five schools provided quantitative data on both cohorts.

*Table 2.4  Data set and collection times for senior cohort (Yr.9 to Yr.11)*

| Autumn 97 Baseline Data | Summer 99 | Easter 2000 | Summer 00 Output Data |
|---|---|---|---|
| Student Background Data, DOB, gender ethnicity etc | | | |
| NVR Test Scores | Key Stage 3 SATs results Maths, English and Science | | GCSE results: Maths, English and Science No. of A-C passes, No. of A-G passes, Best 5 point score. |
| Attitudinal data | | Attitudinal Data | |
| School Attendance | Degree of participation in any of the types of study support offered, for academic years 97-98 & 98-99 | Degree of participation in any of the types of study support offered, for academic year 99-2000 | School Attendance |

*Table 2.5  Data set and collection times for junior cohort (Yr.7 to Yr.9)*

| Autumn 97 Baseline Data | Summer 99 | Easter 2000 | Summer 00 Output Data |
|---|---|---|---|
| Student background data, DOB, gender ethnicity etc | | | |
| NVR Test Scores | | | Key Stage 3 SATs results Maths, English and Science |
| Attitudinal data | Degree of participation in any of the types of study support offered, for academic years 97-98 & 98-99 | Attitudinal Data | |
| School Attendance | | Degree of participation in any of the types of study support offered, for academic year 99-2000 | School Attendance |

### 2.1.7  Overview of the quantitative design

To summarise, the quantitative research design consisted of:

- an opportunity sample of 51 secondary schools in disadvantaged areas
- two cohorts of students tracked for three years:
    - seniors, c 6000 from Yr.9 to Yr.11
    - juniors, c 2000, from Yr.7 to Yr.9
- baseline and outcome measures for each student of attainment and school attendance and attitudes
- participation in study support identified by student self report and classified according to a specially developed taxonomy
- analysis of the value added by study support by means of multiple regression analysis.

## 2.2  The Qualitative Research

Qualitative research was undertaken to complement the quantitative data.  There were four sources of qualitative data:

1. The joint records of visits made by the Critical Friends and the study support coordinators at the end of each Critical Friend's visit
2. The authentic voice interviews conducted in a sample of schools by the Critical Friends
3. The Case Studies carried out by a consortium of NFER/Create Consultants in autumn 1999 and spring term 2000
4. The self-evaluative Case Studies written by members of staff in Partner and Associate Schools during the three years of the study published by the SSNDEP.

All these have been drawn on in the findings and conclusions.

### 2.2.1  Records of visit and "Authentic Voice" interviews

Through their regular visits to schools the Critical Friends developed an understanding of the contexts of the schools and the processes the staff were going through expanding and enhancing the provision of study support.  These visits were recorded on a standard pro-forma.

In the summer and autumn terms of 1999 the Critical Friends conducted a series of structured group interviews at a number of the schools.  Three specially developed interview schedules were used; one for students who participated in study support, one for students who did not attend, and one for staff other than the study support coordinator, who were involved in the delivery of study support at the school.

### 2.2.2 The Associate schools

More LEAs were interested in joining the Programme than could be accommodated in the quantitative research project. A further eighty-five schools and other centres were consequently the second group of schools involved in the research. This group were known as *Associates*. They did not contribute quantitative data to the research but agreed to use the Code of Practice to develop models of good practice and to contribute to the qualitative aspects of the project. The Associates included a number of public libraries and youth projects and were drawn from the authorities shown in Table 2.6.

*Table 2.6  Associate Partners*

| LEA | Numbers and types of Associates |
| --- | --- |
| Brent | 6 secondary schools |
| Brighton and Hove | 3 secondary schools |
| Cambridgeshire | 3 secondary schools |
| City of York | 2 secondary schools |
| Cornwall | a voluntary organisation linked with one secondary and 9 primary schools |
| Croydon | 3 secondary schools and one public library and one Playing for Success Centre |
| Dearne Valley Partnership (parts of Barnsley, Rotherham and Doncaster) | 6 secondary schools |
| East Renfrewshire | an Internet Café (a joint library/youth project) and 2 secondary schools |
| Hammersmith and Fulham | 2 secondary schools and one Playing for Success Centre |
| Harrow | 8 secondary schools |
| Isle of Wight | 3 secondary schools and a youth centre |
| Lewisham | 1 secondary school, a youth and community centre and a public library |
| Newcastle upon-Tyne | 1 youth project |
| Northern Ireland (sponsored by DENI) | 2 secondary schools and a community project |
| Richmond upon Thames | 3 secondary schools |
| Sefton | 9 secondary schools |
| Shropshire | 3 secondary schools |
| South Tyneside | 3 secondary schools |
| Staffordshire | 4 secondary schools |
| Stockton-on-Tees | 2 secondary schools |
| Tower Hamlets | 2 secondary schools and a supplementary school |

(A full list of the Associate schools and other centres is in given in Appendix 1b)

### 2.2.3 The Case Studies

A team of researchers from NFER and Create Consultants was commissioned to undertake case studies of study support at 12 of the partner schools. This work was designed to provide a qualitative perspective to complement the large-scale

quantitative research. We selected the schools to represent different LEAs and different approaches to study support, but generally the schools were chosen to demonstrate aspects of good practice.  In each school the researchers observed students working in the study centre and in two or three different activities suggested by the study support coordinator.  Group interviews were also conducted with about eight Yr.11 students in each school.  Over 150 students and about 60 staff were interviewed in the 12 schools.

# Chapter 3  Findings on the Impact of Study Support

Summary
All students who participate in study support do better than predicted in their GCSE and SATs results compared with students of similar ability who do not take part.  The difference is large, e.g. 3.5 grades at GCSE, and statistically highly significant.
All students who participate also have more positive attitudes to school and better school attendance.
The impact is largest on students from minority ethnic groups and, to lesser extent, on students eligible for free school meals.
The data shows which types of study support have an impact on attainment, or attitudes or attendance.
The provision the schools made and the percentages of students who choose to go varied widely.  When high percentages of students attend the relevant types of study support the effect shows up at whole school level.

## 3.1  A Taxonomy of Provision

Study support is characterised by diversity and variety of provision.  For the purposes of analysis this has been reduced to seven categories plus an eighth catchall ('other'). (Table 3.1)

The first category, 'Subject-focussed ' contains a separate subcategory for each of Maths, English and Science and a further subcategory for all other subjects of the curriculum. The remaining categories cover provision that all secondary schools have routinely made under a general heading of 'extended day', 'extra-curricular activities', or 'study support'.  These include Sports, Aesthetic activities, Drop-in homework provision, and more recently, Study skills, accelerated learning, Peer education and mentoring – all varying aspects of school improvement strategies.

This categorisation, while necessary for purposes of analysis, fails to capture the range and inventiveness of some of the programmes designed to catch student interest and extend their repertoire of skills.  Even within the Subject-focussed  category, provision was rarely a repetition of classroom activities after hours.  It ranged from basic literacy and numeracy work to intensive taught GCSE revision courses to investigative science projects, creative writing groups and a French e-mail club.

*Table 3.1  The Taxonomy of study support activities*

| | Category | Definition | Examples of Activities | | No of schools offering provision in | |
|---|---|---|---|---|---|---|
| | | | | | Yr.10 | Yr.11 |
| **Subject-focussed** | **Maths** | Subject-focussed and teacher directed. (Only activities that can be *uniquely* coded as Maths, English or Science). | Maths Club<br>Maths Clinic<br>Super Maths Sessions | Maths Surgery Basic<br>Numeracy Club<br>Statistics | 16 | 39 |
| | **English** | | Extra English<br>English Homework Club (in E1)<br>Twilight Revision English | English Beginners Club<br>SDS Activities<br>(ILS) Global English | 13 | 39 |
| | **Science** | | Science Club<br>Young Scientists Club<br>Homework Club for Science | Physics Revision<br>Science Study Group<br>Science Practicals | 17 | 38 |
| | **Subjects** | *Subject-focussed and teacher directed. Includes:*<br>• any combinations involving Maths, English and/or Science which cannot be *uniquely* coded above as 'Maths', 'English' or 'Science'<br>• any other (exam related) subjects (including combinations)<br>• Successmaker | Geography Revision Class<br>Study Support History<br>MFL Study Support<br>RE GCSE<br>A Level Art<br>GCSE Sociology<br>GCSE PE Theory<br>Engineering<br>Dance GCSE<br>Japanese | Arabic<br>Media Studies Technology Sessions<br>Business Studies IT<br>Keyboard GCSE<br>Internet Club<br>Food Technology<br>Textiles<br>Food Hygiene Certificate | 37 | 43 |
| **Not** | **Study skills** | Metacognitive (including exam preparation) activities | ACE Days<br>UFA Philosophy Course<br>Revision Skills Day | Accelerated Learning Days<br>Parents' Conference | 9 | 6 |
| | **Sport** | All (non-examined) Sporting activities. (Exam-related Sporting activities are coded as 'Subjects') | PE Club<br>Football<br>Hockey | Swimming Club<br>Fitness Training<br>Trampoline | 36 | 42 |
| | **Aesthetic** | All (non-examined) Aesthetic activities, including pupil performance. (Exam-related Aesthetic activities are coded as 'Subjects') | Orchestra<br>Music Club<br>Steel Pan Band<br>African Drumming Group | Choir<br>Dance Club<br>Art Club<br>Public Speaking | 33 | 37 |
| | **Peer education** | Being involved in Peer education | Reading Mentors with Year 7<br>Helping with Paired Reading<br>Homework Club Helpers | Life Skills and Peer Mentoring<br>Buddying Scheme | 8 | 11 |
| | **Drop-in** | Generic, student selected, cognitive activity | Study Centre<br>Breakfast Club<br>Lunch Club<br>Homework Club<br>Library<br>Lunchtime Computer Club | Study Support<br>Internet Café<br>Learning Resource Centre<br>Study in Homework Club/Quiet Room | 40 | 39 |
| | **Mentoring** | Being mentored (Yr.11 only) | Mentoring Programme<br>In School Mentoring<br>Target Setting with Mr. O'Keeffe | Senior Tutor Counselling<br>BT Roots and Wings | *Not Applic.* | 20 |

| Other | All activities that cannot be coded in any of the above categories | Duke of Edinburgh Award<br>Newsletter Group<br>Careers Fairs/Work Experience | School Production<br>Chess Club<br>Camera Club | 28 | 31 |
|---|---|---|---|---|---|

## 3.2 Patterns of Provision

*FINDINGS*

**Some schools offered three times as many study support activities as others.**

**Much more Subject-focussed provision is made in Yr.11 than in Yrs.9 and 10.**

There was considerable variation among schools in the nature and range of provision and whom it was for.  Some 40 or so schools made provision for Yrs.10 and 11 in the four Subject-focussed categories and in Sports, Aesthetic activities, and Drop-in.  Only 10 schools provided (for the senior cohort), Study skills, and Peer education.  Table 3.1 also shows that provision for Yr.11 significantly increased in the number of Subject-focussed activities as compared with Yr.10.  This is confirmed by interviews with students:

> *"I go to keep up with work and improve my grades.  I get more done there than at home.  There is help from the teachers in small groups.  But there is now no time to go to drama club or choir."   (Yr.11 girl, Patcham High School, Brighton and Hove)*

The range of that variation in amount of provision is shown in Table 3.2.

*Table 3.2  Number of activities offered within each school for the senior and junior cohorts*

| Number of Activities Offered by School | Yr.10 | Yr.11 | Yr.8 | Yr.9 |
|---|---|---|---|---|
| <10 | 18 | 5 | 3 | 1 |
| 10-19 | 21 | 25 | 4 | 5 |
| 20-29 | 5 | 11 | 3 | 4 |
| 30+ | 1 | 4 | 1 | 1 |
| Total | 45 | 45 | 11 | 11 |

Table 3.2 shows that the number of activities (NB **not** categories of activities) offered within each school varied considerably within Yr.10 and Yr.11 from less than 10 to 30 or more.  The table also shows that, in comparison to the provision in Yr.10, more schools

offered a greater number of activities in Yr.11. Opportunities to benefit from study support are therefore very strongly influenced by the school that a student attends, an issue we return to later in the chapter. Some of the increase found between Yr.10 and Yr.11 is likely to be due to the increased availability of funding via the New Opportunities Fund.

Even so, the wide disparity in the level of provision demonstrates that some schools have a long way to go to reach the level of the more prolific providers.

## 3.3 Participation Rates

*KEY FINDINGS*

**Gender and prior academic attainment do not seriously affect the likelihood of a student's participation.**

**Students from minority ethnic groups participate more than White students.**

*FINDING*

**Participation rates for both junior and senior cohorts vary widely between schools.**

It is not sufficient for schools to simply offer a range of activities. Students need to be attracted and encouraged to take part, something at which some schools are much more successful than others. Tables 3.3a and 3.3b record the range of participation rates in the different categories of provision for the senior and the junior cohorts.

*Table 3.3a  Categories of study support and range of % participation: senior cohort*

| | Yr.10 | | | | Yr.11 | | | |
|---|---|---|---|---|---|---|---|---|
| | Number of schools offering activity n=45 | Mean % attending activity | Lowest % attending in any one school | Highest % attending in any one school | Number of schools offering activity n=45 | Mean % attending activity | Lowest % attending in any one school | Highest % attending in any one school |
| Maths | 16 | 35% | 1% | 67% | 39 | 52% | 7% | 83% |
| English | 13 | 21% | 2% | 51% | 39 | 42% | 1% | 82% |
| Science | 17 | 35% | 4% | 64% | 38 | 46% | 6% | 83% |
| Subjects | 37 | 51% | 3% | 97% | 43 | 72% | 26% | 98% |
| Study skills | 9 | 35% | 4% | 72% | 6 | 30% | 9% | 53% |
| Sport | 36 | 52% | 9% | 81% | 42 | 46% | 8% | 78% |
| Aesthetic | 33 | 27% | 2% | 60% | 37 | 23% | 6% | 62% |
| Other | 28 | 38% | 2% | 88% | 31 | 31% | 2% | 88% |
| Peer education | 8 | 25% | 6% | 52% | 11 | 21% | 3% | 55% |
| Drop-in | 40 | 59% | 6% | 95% | 39 | 63% | 14% | 95% |
| Mentoring | *Not Applicable* | | | | 20 | 37% | 2% | 72% |

The participation rates for the junior cohort also show a wide range.  Overall participation rates for Subject-focussed study support are lower than for the senior cohort. In contrast participation rates for Sports, Aesthetic activities and Other are significantly higher.  But because the sample size is much smaller, comparisons must be treated with caution. (See Appendix 3.1, Table 3.1.2)

*Table 3.3b  Categories of study support and range of % participation:  junior cohort*

| | Yr.8 | | | | Yr.9 | | | |
|---|---|---|---|---|---|---|---|---|
| | **Number of schools offering activity n=11** | **Mean % attending activity** | **Lowest % attending in any one school** | **Highest % attending in any one school** | **Number of schools offering activity n=11** | **Mean % attending activity** | **Lowest % attending in any one school** | **Highest % attending in any one school** |
| Maths | 4 | 18% | 13% | 29% | 7 | 25% | 8% | 53% |
| English | 6 | 19% | 10% | 36% | 6 | 17% | 2% | 48% |
| Science | 2 | not valid | 4% | 19% | 5 | 19% | 4% | 46% |
| Subjects | 8 | 30% | 13% | 73% | 9 | 37% | 12% | 72% |
| Study skills | 7 | 27% | 6% | 47% | 7 | 26% | 14% | 61% |
| Sport | 11 | 60% | 42% | 88% | 11 | 56% | 40% | 83% |
| Aesthetic | 9 | 36% | 19% | 66% | 10 | 36% | 26% | 58% |
| Other | 8 | 58% | 15% | 81% | 8 | 37% | 14% | 60% |
| Peer education | 0 | no provision | | | 5 | 9% | 6% | 13% |
| Drop-in | 9 | 82% | 53% | 96% | 10 | 66% | 28% | 98% |
| Mentoring | 2 | Not valid | 32% | 73% | 1 | Not valid | | |

Although, overall, boys and girls participated in study support to the same extent there were differences in what they chose to go to.  Girls attended Subject-focussed activities significantly more than boys and participated much more in Aesthetic activities.  Boys were more likely to choose to participate in Sports and slightly more likely to attend Drop-in sessions.  Table 3.4 shows the different patterns of participation for boys and girls in the senior cohort.

*Table 3.4  Take up of study support activities in Yr.10 and Yr.11 by boys and girls*

| | YEAR 10 Percentage take-up by: | | | YEAR 11 Percentage take-up by: | | |
|---|---|---|---|---|---|---|
| | **All Pupils** n=5346 | **Boys** n=2650 | **Girls** n=2696 | **All Pupils** n=5103 | **Boys** n=2471 | *, Girls n=2632* |
| **Maths** | 13% | 12% | 15% | 46% | 43% | 49% |
| **English** | 6% | 7% | 6% | 36% | 35% | 37% |
| **Science** | 13% | 11% | 14% | 40% | 38% | 42% |
| **Subjects** | 43% | 39% | 48% | 69% | 65% | 72% |
| **Study skills** | 8% | 7% | 8% | 4% | 5% | 3% |
| **Sport** | 43% | 53% | 33% | 43% | 55% | 33% |
| **Aesthetic** | 21% | 16% | 25% | 19% | 14% | 23% |
| **Other** | 25% | 23% | 27% | 22% | 22% | 21% |
| **Peer education** | 5% | 4% | 6% | 5% | 5% | 6% |
| **Drop-in** | 53% | 54% | 52% | 52% | 52% | 51% |
| **Mentoring** | *Not Applicable* | | | 16% | 14% | 17% |
| **At least one activity within any category** | 89% | 89% | 89% | 92% | 91% | 92% |

When examining ethnicity we found that students from minority ethnic groups participate in study support more than White students.  In Subject-focussed study support they participate a lot more: 63% reported participation compared with 46% of the White students.  (See Appendix 3.3, Table 3.3.2)

## 3.4  The Impact of Study Support on Academic Attainment

*KEY FINDINGS*

**Study support has effects which are significant and substantial for GCSE performance especially on Best 5 scores, on the number of A-C passes and on Maths and English GCSE.**

**The overall effect of participation in study support is on average three and a half grades on Best 5 score or one A-C pass more than for students of equal ability who did not participate.**

**Study support can improve attainment in Maths and English by half a grade.**

**Study support has effects which are significant on KS3 SATs scores.  Participation improves Maths attainment by one third of a level and Science attainment by three quarters of a level.**

**GCSE attainment is most affected by Subject-focussed, Drop-in provision and Easter revision courses.**

### 3.4.1  Underlying factors in academic attainment.

The use of KS3 SATs as a base line measure proved a useful predictor of attainment at GCSE, accounting for over half the variance in GCSE results. (See Table 3.5a)

In order to identify specific study support effects we need to explain what factors, other than prior academic attainment, have a differential effect on students' attainment at GCSE.

### 3.4.2  The effect of gender

There is a clear and significant difference between boys and girls' progress in the two years between SATs and GCSEs.  Gender explains approximately a further 2% of the variation above that explained by SATs results.  In other words, girls make relatively greater progress than boys, thus widening the attainment gap from Yr.9 to Yr.11.  Being a girl is worth, on average, approximately:

- two grades on Best 5 score
- one A-C pass
- a third of a grade in English.

### 3.4.3  The effect of ethnicity

Black and Asian students make more progress than White students between Yr.9 and sitting GCSE in Yr.11.  With Yr.9 attainment held constant, the advantage approximates to four fifths of a good GCSE pass or two grades in terms of a Best 5 GCSE score.  (See Appendix 3.3 Table 3.3.1)

The widening of the gender gap in terms of academic progress is much more pronounced in the Black and Asian population than in the White one.  White girls outperform White boys by about one and a half grades in terms of a Best 5 GCSE score while Black and Asian girls out-perform Black and Asian boys by almost three grades.  White girls outperform White boys by about one good (A-C) pass whereas Black and Asian girls out-perform Black and Asian boys by about one and a half good (A-C) passes.

When the analysis was refined to examine three sub-groups (White, Pakistani/Bangladeshi/ Indian, and African/African-Caribbean), the Pakistani/Bangladeshi/Indian sub-population showed a performance at GCSE significantly better than would have been predicted from their SATs scores two years earlier.  There were no statistically significant findings for the African/African-Caribbean sub group.  The White sub-population scored significantly worse in terms of the number of good (A-C) GCSE passes obtained.  (See Appendix 3.3 )

### 3.4.4  The school effect

We know from 30 years or more of research that schools can make a difference (Rutter, 1979, Mortimore, 1989).  Quite independently of the student's ability or gender the school a student attends has an effect on GCSE performance.  So, knowing which school a student attends adds further predictive value.  In this study we found that the variance explained by the school effect ranged from approximately 3% to just under 10% depending on the measure of GCSE attainment used.  Translating that into outcome measures and taking schools at the two extremes – school A with the highest overall added value and school Z with the least value-added – school A gained on average for students of equal ability two and a half A-C passes or 11 grades in the Best 5 GCSEs more than school Z.

### 3.4.5 The study support effect

**Once background and school factors had been taken into account we found that students who participate in study support do significantly better at their GCSE's than students who do not.**

**The cumulative effects of the forms of study support which impact on Best 5 are such that students who participate in all of these might on average score at least three and a half grades more than students of equal ability who do not participate in study support. For example, a student who would have got one C grade, three Ds and an E by going to the appropriate categories of study support might get four Cs and a D or a B, three Cs and an E.**

**The same effect was found using the number of A-C passes as a measure of GCSE attainment. The cumulative effects of the forms of study support which impact on A-C passes are such that students who participate in all might get at least one more A-C pass on average than students of equal ability who do not participate in any study support activity.**

Table 3.5a shows the effect of prior attainment, gender, school attended and, finally, study support in explaining the variance we found in GCSE results.

*Table 3.5a  GCSE multiple regression models*

|  | Best 5 | No. A-C passes | GCSE English Language | GCSE Mathematics |
|---|---|---|---|---|
| Model 1 SATs: $R^2$ | **57.2 %** | **57.1 %** | **56.6 %** | **65.1 %** |
| Model 2; SATs plus GENDER $R^2$ | **59.1 %** | **59.5 %** | **58.0 %** | **65.2 %** |
| $R^2$ change i.e. GENDER effect | *1.9% \*\** | *2.4 %\*\** | *1.4 %\*\** | *0.1 %$^{ns}$* |
| Model 3; SATs plus GENDER plus SCHOOL $R^2$ | **68.9 %** | **62.4 %** | **63.1 %** | **70.4 %** |
| $R^2$ change i.e. SCHOOL effect) | *9.8 %\*\** | *2.9 %\*\** | *5.1 %\*\** | *5.2 %\*\** |
| Model 4; SATs plus GENDER plus SCHOOL plus STUDY SUPPORT $R^2$ | **70.5 %** | **63.6 %** | **64.3 %** | **71.2 %** |
| $R^2$ change i.e. **STUDY SUPPORT** effect | *1.6 %\*\** | *1.2 %\*\** | *1.2 %\*\** | *0.8 %\*\** |

**n=2461**          **n=2532**          **n=2577**          **n=2656**

(\*\*=significance at $p < 0.001$)

Table 3.5a sets out the predictive power of knowledge of various factors about students in predicting GCSE results. The first row demonstrates that we have found in this, as in many other studies, that prior academic attainment, in this case KS3 SATs, is the single most powerful predictor of subsequent academic attainment. It also shows that a knowledge of SATs enables a stronger prediction of GCSE Maths results than any of the other measures.

Moving down the columns the figures in bold show the increasing explanatory power gained by adding the variables of gender, school attended, and finally participation in study support. The amount of additional explanatory power is shown by the figures in italics. The final row in Table 3.5a shows that in relation to these four measures study support has a highly statistically significant effect on how well students perform on four academic measures of attainment. It has most effect on Best 5 GCSEs and least effect on GCSE Mathematics. The calculations for the size of the study support effect are shown in Appendix 3.2 Tables 3.2.1 to 3.2.4.

Table 3.5b shows a similar analysis for the junior cohort, in this case with NVR results as the baseline measures and KS3 SATs for English Maths and Science as the outcome measures.

*Table 3.5b  SATS multiple regression models*

|  | **English SATS** | **Maths SATS** | **Science SATS** |
|---|---|---|---|
| Model 1, NVR : $R^2$ | 18.4% | 49.3 % | 38.1% |
| Model 2; NVR plus SCHOOL $R^2$ | 24.8 % | 49.9% | 39.6 % |
| $R^2$ change i.e. SCHOOL effect | *6.2 % \*\** | *0.6 %$^{ns}$* | *1.5 %$^{ns}$* |
| Model 3; NVR plus SCHOOL plus STUDY SUPPORT $R^2$ | 26.6 % | 52.3 % | 44.3 % |
| $R^2$ change  i.e. **STUDY SUPPORT** effect | *1.8 %$^{ns}$* | *2.4 %\** | *4.8 %\*\** |
|  | **n=433** | **n=463** | **n=445** |

The effect on English SATs scores is small, and not statistically significant. The effect on Maths SATs scores are such that students who participate in it might on average score

perhaps one third of a level higher than students of equal ability who do not participate in it.

The effect on Science SATs scores are such that students who participate in them might on average score perhaps three quarters of a level higher than students of equal ability who do not participate in it.  The calculations for the size of the study support effect are shown in Appendix 3.2.5.

It is worth restating the core message of the section: the effect of <u>study support on academic attainment is statistically highly significant and educationally important</u>.  It was found at individual pupil level in <u>all the schools</u> in the sample and applied to both the senior and junior cohorts.

### 3.4.6  What categories of study support have an effect?

The general finding that study support has a major impact on individual students' attainment was true for all the schools.  Using the categories of study support described in Section 3.1 above we were able to identify the types of study support that have most effect.  In Tables 3.6a and 3.6b we identify in bold type the categories of study support that had an effect in all schools.

*Table 3.6a  Impact of different categories of study support: senior cohort*

| **Best 5 GCSE results** | **No. of GCSE passes A-C** | **English GCSE results** | **Maths GCSE results** |
|---|---|---|---|
| **are improved when students participate in** | | | |
| **Yr.10 Subject**** | **Yr.10 Subject**** | | **Yr.10 Subject**** |
| **Yr.10 Aesthetic*** | | | |
| (Yr.10 Sport*) | | (Yr.10 Sport**) | (Yr.10 Sport)** |
| (Yr.10 Drop-in**) | (Yr.10 Drop-in*) | (Yr.11 Peer education*) | |
| (Yr.11 Other) ** | (Yr.11 Other) ** | (Yr.11 Other)** | |
| (Yr.11 Sport*) | | | |
| **Yr.11 Subject**** | (Yr.11 Subject)* | (Yr.11 subject)** | (Yr.11 Subject)* |
| **Yr.11 Easter school**** | **Yr.11 Easter school**** | **Yr.11 Easter school**** | (Yr.11 Easter school)** |

(**=significance at p<0.001  *=significance at p<0.05)

While most of these are effective across most schools, (shown in bold type) in some cases effects were concentrated in particular groups of schools (shown in parentheses).  Which

forms of study support are effective appears to be dependent on which groups of schools we look at.

Table 3.6a shows that the categories of study support which are affective across the most measures of attainment are Subject-focussed study support in Yr.10 and Easter Revision Programmes in Yr.11. Their effects showed up on three measures in all schools. Yr.10 Aesthetic activities and Yr.11 Subject-focussed support also had an impact in every school but only on Best 5 results. The categories in parentheses such as Sport, Drop-in, Peer education and Other had statistically significant impacts in some schools. Yr.10 Drop-in was found , at a high level of significance, to be effective in most schools

The findings for the junior cohort need to be treated with more caution because of the much smaller sample size. Table 3.6b shows the categories which had effects across all the schools.

*Table 3.6b  Categories of study support which affect KS3 SATs: junior cohort*

| English SATs scores | Maths SATs scores | Science SATs scores |
|---|---|---|
| **are improved when students participate in** | | |
| Yr.9 Subject–focussed (ns) | Yr.9 Subject-focussed** | Yr.9 Subject-focussed ** |
| | | Yr.8 study skills * |

 (**=significance at $p<0.001$   *=significance at $p<0.05$)

Subject focussed provision is clearly most generally effective, but its impact on English results was not statistically significant.

### 3.4.7  Who benefits most?

*KEY FINDINGS*

**All students who participate benefit from study support**

**Broadly boys and girls benefit from study support to roughly the same extent.**

**Students from minority ethnic groups participate in study support rather more than White students, and study support has a much more pronounced effect on their GCSE performance than on White students' results.**

*FINDINGS*

**Students on free school meals participate in study support to the same extent as other students but benefit from it slightly more.**

**Sport and Aesthetic activities showed some positive effects but largely with White students only.**

The overall finding is that all students who participate benefit from study support. There are no gender differences in the overall effect of study support on attainment except for GCSE English in which study support makes a more positive difference to boys than girls. Sport seems to have a positive effect in enhancing boys' GCSE performance generally but for girls the effect of participation in Sport shows up only in GCSE Maths results.

**Free school meals**

Students entitled to free school meals participate in study support to the same extent as other students but under perform at GCSE relative to their peers of equal prior attainment by about two GCSE grades. This reflects an attainment gap which was already apparent at KS3 SATs. For these students the effect of participation in study support on Best 5 scores is slightly greater than for the whole sample. Subject-focussed study support and Easter Revision classes are the forms of study support that have the biggest effects.

**Students from minority ethnic groups**

Not only do Black and Asian students participate more in study support but also they benefit much more from it. On both the Best 5 and the A-C passes as measures of GCSE attainment the impact of study support on Black and Asian students is over twice the size of that on the White students. The effect is larger than for that on students entitled to free school meals. Again it was Subject-focussed study support and Easter revision schools that had the largest effect.

There is, however, a significant relationship between ethnicity and gender. Pakistani/Bangladeshi/Indian (P/B/I) girls did consistently and significantly better than

would have been predicted from their Yr.9 SATs scores. They performed well across all five measures of GCSE performance (grades in the Best 5 GCSE passes; number of A-C passes; GCSE English language grade; GCSE Maths grade; and GCSE double Science grade), White (W) boys did consistently worse. Pakistani/Bangladeshi/ Indian (P/B/I) boys did significantly better than predicted in Maths and science, but still not as well as the girls. African/African-Caribbean (A/A-C) boys and girls and White (W) girls performed in line with the mean for the whole sample. Table 3.7 summarises the findings that were highly statistically significant.

*Table 3.7  Differential effects of study support  on boys and girls by ethnic group*

| Ethnic/gender group | Best 5 grades | No of A-C passes | English language GCSE | Maths GCSE | Science GCSE |
|---|---|---|---|---|---|
| | n=3120 | n=3213 | n=3253 | n=3340 | n=3134 |
| **P/B/I girls** | about 4 grades better | more than a grade better | slightly better | half a grade better | half a grade better |
| **A/A-C girls** | score the same as the whole sample | | | | slightly better |
| **W girls** | score the same as the whole sample | | | | |
| **P/B/I boys** | score the same as the whole sample | | | about half a grade better | slightly better |
| **A/A-C boys** | score the same as the whole sample | | | | |
| **W boys** | about a grade worse | | slightly worse | score the same as the whole sample | |

(For further details see Appendix 3.3, Tables 3.3.7 and 3.3.8)

## 3.5  The Impact of Study Support on Student Attitudes

*KEY FINDING*

**Participation in study support has a favourable effect on attitudes to school.**

*FINDING*

**While Drop-in and Subject-focussed study support have the biggest effect on attitudes, there are also effects from Sport and Aesthetic activities.**

The initial analysis of the attitude questionnaires produced responses consistent with other studies.  We found the same five factors as had been found by the previous NFER Study (NFER 1993).

*Table 3.8  Factors in the attitude questionnaire*

**Factor 1        Positive attitudes towards school work**
E.g. questions such as: I am very happy when I am at school; I like lessons where I can work on my own

**Factor 2        Positive attitudes to school ethos**
E.g. questions such as: My school is clean and tidy; my teachers praise me when I do my schoolwork well

**Factor 3        Acceptance of utilitarian purposes of school**
E.g. questions such as: Schools should teach things that will be useful when we get jobs; my parents think school is a waste of time

**Factor 4        Academic self-esteem**
E.g. questions such as: I work as hard as I can in school; I think I am very good at schoolwork

**Factor 5        Commitment to participation in class and individual discussions with teachers**
E.g. questions such as: I am keen to answer questions in class; I often talk to my form tutor about my career plans

As these factors are strongly correlated with one another we can talk meaningfully, about overall attitudes to schooling.  (See Appendix 3.5,  Table 3.5.3)

### 3.5.1  Underlying factors in attitudes to schooling.

Attitudes to school become less positive as students move up the school (Thomas et. al, 1998), (MacBeath and Mortimore, 2001).  Unsurprisingly we found that the students from both the senior and junior cohorts with the most positive baseline and outcome measures of attitudes reported spending more time on homework and reading, and less time watching TV and videos. They also reported attending school more regularly.

Yr.9 attitudes are good predictors of Yr.11 attitudes, accounting for 21.7% of the variance found.  Gender accounts for 1.5% but attitudes varied considerably depending on which of the schools students attended.  5.5% of the variation is explained by a school effect.  In all schools in the study there was a deterioration in attitudes to school over time but there were individual schools in which this effect was significantly greater in relation to school-work, self esteem and participation (Factors 1, 4 and 5).  By Yr.11 we found girls attitudes more favourable on Factors 1,2,3 and 4  (Schoolwork ethos, utilitarian purposes, and academic self-esteem) but not on Factor 5 (participation).  (See Appendix 3.5, Table 3.5.4)

### 3.5.2  The effect of study support on attitudes

Participation in study support, particularly in Yr.11, has a significant and positive effect on attitudes to schooling.

*Table 3.9  Impact of study support on attitudes*

| Yr.10 | |
|---|---|
| **Participation in:** | **Correlated with Impact on:** |
| Study skills | Factor5 (participation) |
| Aesthetic | Factor 5 |
| Drop in | Factor 4 (academic self esteem) |
| Other | Factor 5 |
| | |
| **Yr.11** | |
| **Participation in:** | **Correlated with Impact on** |
| Maths | Factor 1 (school-work), 4, 5 and total |
| English | Factor 3 (utilitarian purposes) |
| Science | Factor 1, 4, 5 and total |
| Subjects | Factor 1, 2 (ethos), 3 , 4 and total |
| Drop in | Factor 1, 2 and total |
| Aesthetic | Factor 3 |
| Sport | Factor 4 |

(See Appendix 3.5, Table 3.5.5 for detail of how these correlations were derived)

These correlations are derived from an analysis of the total senior cohort sample and apply at the individual student level. The effects of participation are cumulative, that is, the more activities a student attends the greater the likelihood of positive attitudes.

The effects of participation in Yr.11 are larger than at Yr.10. In Yr.11 participation in the four categories of Subject-focussed study support and Drop-in provision have the most effect. This is explained in part by students reporting pressure to do well in public examinations and so cutting on activities not directly to GCSE exams.

> *"It is more serious now and I know I need to get the work done." (Yr.11 student, Warley School Sandwell)*

Table 3.3, which shows significantly higher rates of participation in subject, focussed activities in Yr.10 than in Yr.11 corroborates this.

Students who attended Yr.10 Study skills, Aesthetic activities, Drop-in, and 'Other' activities scored more highly on self-esteem and participation (Factors 4 and 5). None of the Subject-focussed categories showed any effect in Yr.10. Participation rates in Yr.10 for Study skills, Aesthetic Activities, Drop-in, and 'Other' are higher than for those same activities in Yr.11 (See Table 3.3). We may conclude that in Yr.10 students who attend study support are <u>choosing</u> activities which interest them and that the consequent pleasure and benefits produces positive impact on attitudes to "self as learner." We discuss this point further in the next chapter. (See Sections 4.4, 4.5, 4.8)

### 3.5.3 Low self-esteem
Students with low academic self-esteem in Yr.9 consistently participate less in study support in both Yrs.10 and 11. However, those who do participate show greater development in their academic self-esteem than those who do not. For these students participation in Sport has a significantly positive effect.

### 3.5.4 The impact of Sport and Aesthetic activities
The impact of Yr.11 Sport on self-esteem (Factor 4) is worth examining. Participation in Sport at a mean rate of 55% is the second highest for any activity for boys in Yr.11.

Although its overall effect on self-esteem is less than for the Subject-focussed activities the correlation is, nonetheless, significant.  Furthermore, for students who scored low on baseline measures of self-esteem and who consistently participate less in study support, Sport seems to have a uniquely positive effect on the enhancement of self-esteem.

More girls than boys participate in Aesthetic activities at all stages. (Yr.10  25% to 16% and Yr.11 23% to 14%)   But rates of participation in Aesthetic activities, for both girls and boys, 23% in Yr.11 are much lower than for Sport, 46%, for Subject-focussed activities, 72%, or for Drop-in, 63%.  This relatively low participation rate may explain why we did not find much impact for Aesthetic activities.  There is an impact on Factor 5 (participation) in Yr.10.  This may be because through activities such as choir, music making, and the visual arts, students have the opportunity to build better relationships with teachers so increasing their readiness to engage with them in the more formal aspects of schooling.  However, we can find no obvious reason why participation in Aesthetic activities in Yr.11 should be correlated with a more positive attitude to Factor 3 (utilitarian purposes).

## 3.6  The Impact of Study Support on School Attendance

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*KEY FINDING*

**Whatever the school attended and regardless of students' backgrounds, participation in some forms of study support has a positive impact on school attendance.**

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Because of the strong possibility that students who participate in study support may also be good attenders at school generally it was necessary to put the research question in a slightly more complex way;

Do students who participate in study support appear to show higher levels of school attendance <u>relative to where they were at an earlier stage in their school career?</u>

### 3.6.1  Underlying factors in school attendance
We found that:

• Attendance in Yr.9 provides the best predictor of attendance at Yr.11

• Entitlement to free school meals and lower scores at English SATs slightly increases the likelihood of lower levels of attendance at Yr.11.

These three background factors, Yr.9 attendance, English SATs and free school meals, explain approximately 21% of the variation in Yr.11 school attendance.

Gender does not influence the patterns of attendance at Yr.11.  Ethnicity has only a slight effect.  Baseline attitude scores on Factor 2 (school ethos) and Factor 4 (academic self-esteem) predict 2% and 6% respectively of the variance.

### 3.6.2  The school effect
The particular school a student attends makes a significant difference to his or her level of attendance in Yr.11.  Using multiple regression analysis we found that the school with the best attendance rates was achieving a rate approximately 10% higher than the least effective one.  This school effect explains 8% of the variance.  We cannot say from this study what it is that the more effective schools do to achieve this outcome, but inference

from other studies suggest it is related to positive attendance policies including targeting and monitoring, pastoral care, home-school liaison and provision of activities after school.  (Rutter, 1979, Mortimore, 1989)

### 3.6.3  Study support effects

Having taken baseline factors and school effects into account we are able to identify effects of specific forms of study support on school attendance.

*Table 3.10  Study support effects on attendance: senior cohort*

| | |
|---|---|
| (Yr.10 Subjects ) | Significant |
| (Yr.10 Sport) | Sizeable and highly significant |
| Yr.10 Aesthetic | Significant but negative |
| Yr.11 Study skills | Significant but negative |
| **Yr.11 Subjects** | **Sizeable and highly significant** |
| (Yr.11 Sport) | Significant |
| (Yr.11 Peer education) | Significant |
| **Yr.11 Drop-in** | **Sizeable and highly significant** |

(See Appendix 3.6 for further detail on how these correlations were derived.)

Effects found in most schools are in bold while those that only apply in particular groups of schools are in parentheses.  Attendance at Yr.11 Subjects and Yr.11 Drop-in had the greatest effect on school attendance across all schools, explaining about 2% of the variance.  There are effects from Sport and Peer education that influence attendance for the better but these are concentrated in specific schools.  The effect of study support is to increase the attendance of students by the order of two to three percentage points more than students who do not attend study support.

More caution needs to be exercised in relation to the other three categories.  The negative effects found for Yr.10 Aesthetic activities are ambiguous and do not find any corroborative information from the qualitative data.  Likewise the finding on Yr.11 Study skills is puzzling.  Given the small sample size for Yr.11 Study skills it is unwise to speculate too much.  But as Table 3.3 shows only six out of 45 schools offered Yr.11 Study skills and only 4% of the total sample participated.  One inference we might advance is that Yr.11 Study skills may be too little and too late.

## 3.7 The Impact of Study Support on the Whole School

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*KEY FINDING*

**Study support has an impact at whole school level when participation rates are high.**

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All the findings so far reported apply at the level of individual students and the effect sizes described, for example three and a half grades at on Best 5 GCSE results, are the mean across the whole student sample. But we have also found effects that applied in only some schools.

In considering, for the senior cohort, the positive effects of study support on school attendance, in particular, we found a Group 1 set of schools where the effects were stronger and a Group 2 set where the effects were weaker. We therefore checked participation rates in some key study support activities across these two groups of schools. In general we found that some schools are apparently effective in improving Yr.11 school attendance figures (relative both to other schools and to what one might have predicted in terms of the characteristics of their Yr.9 baseline figures) because they do two things:

- they make study support provision in relevant areas (the programme factor)
- they achieve high levels of participation (the marketing factor).

Table 3.11 below shows the participation rates of the two groups of schools

*Table 3.11  Study support uptake in two groups of schools*

| Group 1 | Yr.11 Drop-in | Yr.11 Subject focussed | Yr.10 Drop-in |
|---|---|---|---|
| School 42 | 98 % | 88 % | 92 % |
| School 35 | 0% | 94 % | 0 % |
| School 41 | 64 % | 46 % | 12 % |
| School 30 | 95 % | 75 % | 89 % |
| School 47 | 67 % | 72 % | 75 % |
| School 39 | 70 % | 96 % | 62 % |
| **Mean** | **64 %** | **79 %** | **55 %** |
|  |  |  |  |
| **Group 2** |  |  |  |
| School 49 | 0 % | 83 % | 19 % |
| School 11 | 26 % | 54 % | 43 % |
| School 26 | 52 % | 81 % | 70 % |
| School 7 | 52 % | 29 % | 49 % |
| **Mean** | **32%** | **62 %** | **45 %** |

It does indeed appear to be the case, perhaps most crucially for Yr.11 Drop-in provision, which we found had the largest impact on attendance that the average uptake is higher in the Group 1 schools.

In considering the impact on attainment we found evidence of an unexpected effect of very high levels of participation. We found a small number of schools with a very small percentage uptake but with very significant gains for those students who participated and another small group of schools with a very large uptake and more generalised, but less dramatic, gains at individual student level.

Two schools drawn from Groups 1 and 2 in Table 3.11 provide examples of this difference between pupil level and school level value added in attainment. In school 42 there are only small differences between the effects of study support on those who participate and those who don't. Participation in Aesthetic activities in Yr.10 has a modest effect on Best 5 GCSE scores but there is little difference on A - C passes or GCSE Maths or Science. In school 11, on the other hand, initial impressions might be that it is 'doing better' than school 42 because there are large effects on students' GCSE results, specifically in relation to Yr.11 Science study support provision. The effect on Best 5 is almost two and a half grades and the effect on GCSE A-C is virtually two good passes. The effect on GCSE English is three quarters of a grade and on Maths one third of a grade.

Yet when comparisons are made at school level we find a large overall effect on GCSE results in school 42 and a modest overall effect on GCSE in school 11. This apparent paradox becomes less problematic when we then look at levels of participation in the two schools.

*Table 3.12  Differences between schools 42 and 11 in uptake of study support*

| School | Y10 subjects | Y11 Maths | Y11 science | Y11 subjects |
|--------|--------------|-----------|-------------|--------------|
| 11 | 9% | 21% | 38% | 54% |
| 42 | 71% | 79% | 83% | 98% |

So, in school 11, Yr.11 Science has a marked effect for those who attend as against those who don't and less effect on the school overall, this is because relatively few participate

in school 11. While in school 42 almost all students participate and therefore the study support effect is a whole school one.

In schools with a high level of uptake study support effects may not only be indistinguishable statistically but we may find the concept itself almost disappearing. In other words, the ethos of the school is one of learning across contexts, in and out of classrooms, in and out of school. This may be illustrated by one of the two Scottish schools in this study, where study support has a long history.

*"I think study support is part of the ethos we have here – that every child is special, regardless of ability or whatever. I think that it actually empowers them and it embeds it into their school life. It shows the students that we are willing to work with them beyond the classroom. We are willing to work within a different context with them. I think it sends out important messages to parents and the children –that we are really interested in them and are trying to develop strategies to prove that." (Headteacher, St. Kentigern's, West Lothian)*

It is a common feature in other schools to find that students shun study support because it is seen as 'uncool' or primarily for the 'swots' and 'boffs'. Such attitudes are likely to have a depressive influence on motivation and attendance at study support. It may, as one teacher suggests be a shift in culture that evolves over time:

*"A climate of learning is taking off. There are lots of kids who don't care about peer pressure. There are children in the study centre who wouldn't have been there three or four years ago. It's becoming habitual." (Teacher, Campion Catholic High School, Liverpool)*

## 3.8  Cumulative and Particular Effects

## Key Findings

**The effects of study support are widespread.**

**Subject-focussed activities have an impact not only on attainment but also on attitudes and attendance.  Sports, Aesthetic activities, Peer education and Drop-in provision impact not only on attitudes and attendance but also on attainment**

We have already shown that participation in different categories of study support has an incremental affect on attainment, attitudes, and attendance.  The more different types of provision a pupil attends, the better he/she is likely to do.  There is in addition a year on year cumulative effect; participation in study support in any year increases the likelihood of participation in subsequent years. (See Chapter 4)

### 3.8.1  The impact of particular forms of provision

The effects of Subject-focussed study support, including Easter revision sessions, on GCSE and SATs results are clear and unsurprising, given their objective of directly improving academic performance.  However, these categories have an impact on attitudes and attendance as well.  Furthermore non-Subject-focussed activities also have an impact on academic attainment as well as the effects on attendance and attitudes.

### 3.8.2  The impact of Subject -focussed study support

*Table 3.13  The impact of Subject-focussed study support*

| Subject -focussed provision | Correlates with impact on |
| --- | --- |
| Yr.10 | **Best 5 GCSE, A-C GCSE, Maths GCSE**<br>Attendance |
| Yr.11 | **Best 5 GCSE**, A-C GCSE, Maths GCSE, English GCSE<br>Attendance<br>Total Attitudes |
| Yr.11 Easter Revision | **Best 5 GCSE, A-C GCSE, English GCSE**, Maths GCSE |

(Bold type signifies that the effect was found in all schools)

The effect of Yr.10 provision across the whole sample on GCSE results may be contrasted with the effect of Easter revision, suggesting that there are two different

processes at work. One involves support for last minute revision while the other involves subject mastery and approaches to learning at an earlier stage. This together with other findings strongly suggests a key place for study support at KS3.

### 3.8.3  The impact of Drop-in study centre provision
Drop-in study centre provision is correlated with a wide range of effects.

*Table 3.14  Impact of Drop-in provision*

| Drop-in Provision | Correlates with impact on |
|---|---|
| Yr.10 | Best 5 GCSE, A-C GCSE<br>**Academic self-esteem** |
| Yr.11 | **Attitudes to school work, to school ethos, overall attitudes.**<br>**School Attendance** |

(Bold type signifies that the effect was found in all schools)

A simplistic conclusion might be that schools should place an emphasis on boosting participation in Drop-in provision. However, a school by school analysis of the participation rates for each category shows some interesting patterns. Schools that have high participation rates for Drop in (above 75%) have high overall participation rates. They also have participation rates in at least one other activity well above the mean. This would seem to indicate that schools which achieve very high levels of participation overall and of participation in Drop-in study centres do so because they offer a range of provision which is mutually reinforcing. (See Appendix 3.1)

This finding might further indicate that students choose to participate in Drop-in study centre provision when they have already learned two other things: one, that participation in study support is intrinsically rewarding, and two, how to use the time spent in Drop-in study centres effectively. The effective use of study centres requires that students have begun to move towards becoming self-regulated learners. High levels of participation particularly in Yr.11 may therefore be outcomes of earlier student experiences of out-of-school-hours learning. If this is correct then there are important implications for how schools plan for out-of-school learning over any student's secondary school career.

### 3.8.4 Sport, Aesthetics and Peer education

The summary of the effects of Sport, Aesthetic activities and Peer Education is shown in table 3.15 below.

*Table 3. 15  Impact of Sport, Aesthetic activities and Peer education*

| Category | Year | Correlated with impact on |
|---|---|---|
| **Sport** | Yr.10 | Best 5 GCSE, English GCSE, Maths GCSE<br>Attendance |
| | Yr.11 | Best  5 GCSE, **Factor 4 (academic self esteem)**<br>Attendance |
| **Aesthetic activities** | Yr.10 | **Best 5 GCSE, Attitude Factor 5 ( participation)** |
| | Yr.11 | **Attitude Factor 3 (utilitarian)** |
| **Peer education** | Yr.11 | English GCSE<br>Attendance |

(Bold type signifies that the effect was found in all schools)

This picture of the interplay of effects of different forms of study support demonstrates that the effectiveness of study support lies not in simply more time or better facilities to do homework or coursework.  In the next chapter we examine some of the reasons why study support is effective.  The issues to be considered are well summarised by a student when asked how to encourage non-involved students to go:

> *"Get teachers they like and a good atmosphere.  Combine fun, sports and stuff with education." (Student,  Willows High School, Cardiff)*

# Chapter 4  The Effectiveness of Study Support

<u>Summary</u>
The evidence, both from case studies and the authentic voice interviews, illustrates the processes whereby study support becomes an effective means of helping students to do much better at school. Choosing to learn out of school hours is rewarded by the pleasures of being with friends, a relaxed setting and different relationships with peers and adults. Engagement leads to a virtuous circle of experience of success, growth of self-confidence as a learner and so to further engagement in learning. Students become more self-regulated learners. Once a critical mass is reached this has an impact on the ethos of the school. This study has tracked students for three years. Other longer term studies of extra-curricular activities suggest that not only does participation affect learning well after students have left school but also affects wider life choices.

## 4.1  Fostering Participation in Study Support

Students who participate in study support do better at school than those who do not. In order for students to gain benefit they must first volunteer (or be persuaded) to participate. This, we found depended to a large extent on the provision of the individual school and to a much lesser extent, on the individual characteristics of students. Low scores on academic self-esteem (Factor 3 on the baseline attitude measures) was a factor, although three factors – school attendance, self-esteem and participation in study support would appear to be closely inter-related. Gender, ethnicity, and prior academic attainment did not affect the likelihood of participation.

### 4.1.1  How schools encourage participation
Schools that achieved high rates of participation paid attention to the accessibility and breadth of the provision. They were more likely to invest in the marketing of study support and responding to students' needs and wishes.

> *"Students are able to shape the nature of the study support programme. They are asked for their suggestions, and they evaluate events at the beginning and end of most courses. More generally, the emphasis is placed on the students in the context of study support - it is their club or activity, and for them to decide how things are to be developed."*
> *(NFER case study, Broadgreen Community Comprehensive School, Liverpool)*

### 4.1.2  Accessibility and breadth
The availability of provision makes a difference. A few schools had only half a dozen computers available for students to work at in a Drop-in study centre. At the other extreme, Sarah Bonnell School had space for 120 girls in its study hall and this was regularly filled. In some schools students mentioned that they would have liked to

have gone on residential study weekends but that they were not selected because places were limited.

Accessibility also refers to timing and location of activities. Schools such as St Kentigern's with a wide catchment area devoted significant sums from the school budget to the provision of transport for after school activities.

Students vary in their interests. In order to engage them in a habit of learning outside the classroom, schools with high participation rates offered a programme of activities designed to appeal to diverse interests. Furthermore, such schools were able to recognise that interests can be transitory and were willing to change direction and start new activities as appropriate.

Schools with high attendance levels at study support were characterised by imaginative programme ideas and a school culture in which study support had become just "part of the way we do things round here."

Some examples of imaginative programmes were: French Cookery, (with French as medium of instruction, but students ate the learning outcomes); a week long Murder Mystery Summer School to develop key skills; a Macbeth Drama Challenge – a weekend in which to mount a production of the Scottish play; a babysitting training course; and courses in philosophy and yoga. St Kentigern's introductory programme for S1 students (the first year of secondary education in Scotland) combined the teaching of key skills with imaginative sports and creative activities.

### 4.1.3 Marketing

For younger students simple encouragement from form tutors and an exciting sounding programme are frequently sufficient to ensure attendance for the first few sessions. However, schools able to sustain high participation rates had a systematic ongoing approach to promoting study support. One strategy frequently used was to offer incentives, for example, free drinks and biscuits and attendance certificates. Broadgreen School offered a small teddy bear called "Broadgreen Brainy Bear." A few schools added the enticement of prize draws to regular attenders, sometimes for vouchers for meals in fast food chains, but in one case, with outside sponsorship, for a mountain bike. Towards the end of the study, schools reported that once study

support had become part of the school culture these basic extrinsic rewards were no longer needed.

Incentives and individual encouragement were in many cases supported by clear and well-targeted information systems and by public affirmations that study support was important. Schools emphasised the frequency with which students had to be reminded and encouraged in the early days, through announcements in assemblies, by year heads, form tutors and subject teachers. As schools developed a whole school approach study support was regularly mentioned in parents evening, award evenings and reports to governors, as at Campion, Broadgreen and Byng Kenrick Schools.

At KS4, and with the more disaffected students at all stages, a more individualised approach was necessary. Not only were individual students reminded but efforts were made to encourage friends to attend as a group. Gosforth High School developed a successful targeting system based on performance monitoring data with regular reminders from tutors and Year Heads. Campion Catholic High School used Learning Mentors to remind and encourage targeted students to attend.

Marketing is a long-term task. High levels of participation can take three to four years to achieve.

> *"Eight students attended the first holiday session but now these sessions achieve a consistent attendance of 40 students, 30% of all Yr.11." (NFER case study, Campion Catholic High School, Liverpool)*

### 4.1.4 Responsiveness to students needs and wishes

An important factor, which appears to be linked with high participation rates, is the involvement of students in the planning and delivery of study support sessions.

> *"Students are able to shape the nature of the provision itself, through informal exchanges with Centre staff, as well as contributing to a 'Suggestions' box." (NFER case study, Walker Comprehensive School, Newcastle)*

Where this was most effective it was based on regular surveys of students to find out their interests and wishes. Schools in Newcastle were particularly assiduous at this; Walker Comprehensive School undertaking it termly, as did George Green's School in

Tower Hamlets. The most frequent form of formal student involvement in planning and oversight was via the School Council. There is no evidence as to whether this approach is more or less effective than informal involvement of small groups of students in organising particular activities that they want to do. Certainly at the early stages of the development of study support, students value being allowed to make decisions which have an immediate impact. Examples of this are Broadgreen Community Comprehensive School where the 'Homework Club' was re-titled 'Café Ask' or at Heartlands High School where they were involved in the design of learning resource areas.

Student participation was not, however, determined by programme content alone, nor by sustained and skilful marketing, nor by involvement of students in decision making. These factors only came in to prominence once students' 'quality criteria' were met. Their comments on how to get non-attenders to participate encapsulate the essential messages about what students find important in study support.

> *"Tell them it's a laugh. Tell them it's good. Tell them who else goes. Tell them which teachers are there." (Yr.11 student, West Denton High School, Newcastle)*

> *"Biscuits, relaxed atmosphere. You do your own work by yourself but the support is there is you need it." (Yr.11 student, Bristnall Hall High School, Sandwell)*

### 4.1.5 Reasons for non-participation

However study support was not seen as appropriate by all students. There were a variety of reasons given for not participating. Some students simply do not like school:

> *"I hate school, nothing would make me stay. I like to have a break and stop when I want and get a snack." (Yr.11 Boy, Warley High School, Sandwell)*

This was not, however, a common reason given. More common were those students who were aware of what was on offer and although quite interested had not seen themselves as qualifying.

> *"Sports activities are alright but you never get a chance at the ball. It's only alright if you are in the team." (Yr.9 boys, Harrow High School, Harrow)*

*"I'd go if it was football, basketball or sporting activities but not revision stuff because we are the school bums." (Yr.11 boy, Willows High School, Cardiff)*

*"It's all targeted at Grade C." (Yr.11, boy Kenton School, Newcastle)*

*"I used to go to Maths when I needed help- but I don't need help anymore." (Yr.11 girl, Hurlingham and Chelsea School, Hammersmith and Fulham)*

Some students were deterred by the social stigma or the lack of people in their own peer group to relate to. Peer group expectations and affiliations prove to be one of the strongest incentives and disincentives.

*"They don't want to be seen as a nerd,"* was how one Campion student quoted in the NFER case study put it.

*"I don't like what you hear people saying about you when you do go." (Yr.9 student, Yewlands School, Sheffield.)*

*"Imagine coming on your own. It would be rubbish because you'd have no one to talk to." (Yr.11 boy, Willows High School, Cardiff.)*

A few students gave reasons to do with transport difficulties or responsibilities at home, such as the care of siblings. Some had part-time work.

*"I can't. I work at the butchers straight from school." (Yr.11 boy Chesterfield High School, Sefton)*

The authentic voice interviews showed a pattern of contrasting responses between participants and non-participants as to parental influence. Parents of non-participants were sometimes seen as more laissez faire in their attitudes.

*"They don't care if you are working at home . . . they don't know if you do it or not." (Yr.11 girl, Patcham High School, Brighton and Hove)*

*"It's your decision – go if you want."(Yr.11 boy, Kenton School, Newcastle)*

Parents of participants were often seen as more directly interested and supportive.

*"I can't always go because I have to look after my younger sister but this can be rearranged if it is really important."* *(Yr.11 girl, Chesterfield School, Sefton)*

*"My mum really likes it – checks up that I'm attending and my brother in Year10."* *(Yr.11 boy, Hurlingham and Chelsea School, Hammersmith and Fulham)*

*"They came to a meeting about it, so they think it is good."* *(Yr.11 boy, Kenton School, Newcastle)*

Some schools such as at Campion Catholic High School in Liverpool, *"put in a lot of time and effort into informing parents about the study centre and also urging them to encourage their offspring to make use of it. In addition, parents themselves can access the centre on two occasions each week. Furthermore, school staff put on special courses for parents from time to time"*. (NFER case study, Campion Catholic High School, Liverpool)

## 4.2  Fostering Learning

We identified three ways in which students benefit, which we have described as:

1.  Direct effects
2.  Indirect effects
3.  Cumulative effects.

### 4.2.1  Direct effects

Direct effects are most clearly demonstrated by participation in Easter schools and Subject-focussed study support in Yr.11. Students performed better than predicted on GCSE exams because they had opportunities for extra subject study but also received help with preparation and examination techniques.

> *"You get more individual help from the teachers. If you're not sure about things you can ask for extra help from the teacher."* *(Student, Royal Docks Community School, Newham)*

Using planners in the run up to exams, for example, had alerted students to the urgency of study. It also alerted them to the importance of strategies for transferring information from short to long-term memory. Together with the direct benefits on examination performance, there were potential longer-term benefits in students' approaches to study and to learning.

*"I'd never realised that there are different ways of revising things other than reading information off the page." (Student, Shirelands Language College, NFER case study)*

### 4.2.2 Indirect effects

Indirect effects are demonstrated by attendance at study support which has no direct bearing on attainment but engages students in out-of-school learning and improves performance at school. For example, involvement in Yr.11 Other activities which is correlated with better Best 5 results must be impacting by engaging students in both study support, learning and school. (See Table 3.6a). Not only did students' attitudes to school improve as a result of participation in Sport, Aesthetic and Subject-focused activities but school attendance improved too. Participation in sport and Peer education , for example, were related to higher school attendance in some schools while involvement in Yr.11 subject-focused study was a consistent feature of raised attendance in all schools.

Indirect effects also suggest that breadth as well as depth is beneficial. For example involvement in Aesthetic activities in Yr.10 impacts on Best 5 GCSE scores. (See Table 3.6a) This is recognised in the exam-focussed Easter revision schools that placed emphasis on balance in approaches to work rather than simply concentrated on intensive study. The importance of physical and aesthetic activities as a complement to study was a strong feature of the Birmingham schools involved in the University of the First Age.

### 4.2.3 Cumulative effects

Cumulative effects are another form of indirect effect. We found for attainment, attitudes and attendance that participation in study support in Yr.X has measurable effects at Year X+1. (See Tables 3.6a, 3.6b, 3.9.and 3.10)

We also looked in detail at the factors that explained participation rates at Yr.11 Easter school, which was the final activity on which we collected data from the senior cohort. We found that the school attended was the strongest single predictor, but also that participation in study support in Yrs.10 and 11 explained significant amounts of variation, irrespective of school attended. Gender, ethnicity and eligibility for free school meals have only a slight effect in explaining participation at Easter school.

Yr.9 baseline attitude scores and Yr.9 SATs for English also have only modest explanatory effects.

*Table 4.1  Explanation of variance in participation rates at Easter school*

|  | Extra variance explained |
|---|---|
| by Gender, ethnicity, FSM | 0.4 % ** |
| by Yr. 9 attitudes | 3.4 % ** |
| by Yr. 9 SATs scores | 2.5 % ** |
| by Study support participation in Yrs.10 &11 | 4.6% ** |
| by School attended | 36.9 % |
| TOTAL VARIANCE EXPLAINED | **47. 8 %** |

n=2048

(**=significance p>0.001, *=significance p>0.005)

We found similar effects from a detailed analysis of participation in Yr.11 Subject-focussed study support.  School attended has the largest effect but there were largest and highly significant effects from prior study support participation.  Table 4.2 shows which forms of study support had an impact on Yr.11 participation.

*Table 4.2  Cumulative effects of study support*

| **Participation in** | **Influenced by prior participation in** | |
|---|---|---|
| Yr.11 Subject-focussed | Yr.10 | Drop-in , Sport, Other |
| Yr.11 Easter School | Yr.10 | Study Skills, Drop-in |
|  | Yr.11 | Subject-focussed, Drop-in |

 (See Appendix 3.7 for details of cumulative effects.)

These tables show that studying out of school hours can become habit forming and habit changing.  Learning entered into voluntarily may be seen as effecting a fundamental shift in attitudes and self-perception.

## 4.3  Why Study Support is Effective

Evidence from students, teachers and other adults involved in study support enables us to explore in greater depth the processes at work behind the indirect and cumulative effects.  The messages are consistent and unambiguous and reinforce findings from other studies (MacBeath, 1991, 1992; NFER, 1999, 2000).  We can say with a high degree of confidence that study supports benefits participants because:

- it is voluntary – for students and staff
- it is learner-centred
- students and teachers experience a greater sense of control
- there is a more relaxed and informal relationship between teachers and students
- it provides a sociable learning environment

- it fosters independent self-regulated learning
- there is access to a range of resources for learning
- there is an ethos of achievement.

We can also identify elements that were not present in all the schools in this study but did serve to strengthen study support's effectiveness:

- Study support is seen as having a vital part to play in a whole school approach to raising achievement
- It has the active support of the head teacher and/or senior management
- The study support coordinator plays a proactive role in the development and monitoring of provision
- The study support coordinator is a member of senior management
- Students play a part in shaping and evaluating the study support programme
- There is external support from the LEA, Critical Friends or others
- There are student mentors who receive support and/or training in carrying out their role.

### 4.3.1  The voluntary principle

*"Because this isn't compulsory and you are here from your own free will, so you want to learn." (Student, Sarah Bonnell School, Newham, NFER Case Study)*

*"You're there 'cos you want to be there."*
*(Student, Broadgreen Community Comprehensive School, Liverpool, NFER Case Study)*

The single factor that emerged most consistently from discussions with students and staff was the voluntary nature of study support. Students like *choosing* to go. Even if they are encouraged by teachers or their parents to attend, the final decision is up to them. Choosing whether or not to participate and what to participate in opens access to a range of benefits. Having the option to choose from a number of different pleasurable learning activities is itself empowering and likely to increase self-esteem, even if simply by virtue of being trusted to make choices.

*"Cheerleading is different." (Yr.9 girl, George Green's School, Tower Hamlets)*

*"There are interesting things like Amnesty Club which I would not be involved in if it didn't happen at school." (Yr.9 student, Harrow High School, Harrow)*

The indirect and cumulative effects of study support show that engagement leads to commitment, and participation in multiple activities adds further value. So, a student who chooses the Scrabble, the chess or the martial arts club and experiences challenge and satisfaction then feels more confident in making further choices. Participation in Science study support may lead to participation in Mathematics. Greater confidence and the removal of the anxiety may then increase motivation to attend school on a more regular, or less selective, basis. So, study support offers an exit point from the vicious circle of low achievement, low self-esteem, low expectation, low motivation and the entry point to a virtuous circle of raised self-esteem, sense of autonomy and a re-engagement with learning.

*Figure 4.3  The virtuous circle*
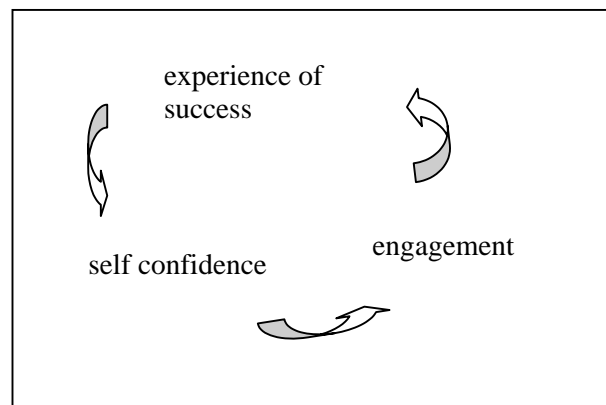


> "We enjoy the science CREST Award.  We want to achieve the award. It makes us think and we are not told what to do."(Two Yr.9 girls, Lister School, Newham).

Learning *how* to make successful choices is seen by teachers and youth workers as a major benefit of study support. The corollary of this is that students who choose but then drop out of study support activities may be further disenfranchised. Knowing why they have done so then becomes an important issue for the school.

### 4.3.2  Choice by staff

The voluntary principle extends to staff too. Study support gives teachers the opportunity to work with young people free from the pressures of discipline, classroom management and curriculum coverage. It allows extended time with students on a one-to-one and small group basis. It offers the opportunity to take risks and to experiment with different learning styles in a safe context.

*"You can take risks [as a teacher] in study support that you might not take normally. You won't take risks in those 25 [National Curriculum] hours."* *(Teacher, Shireland Language College, Sandwell)*

Study support provides opportunities for staff to work outside subject responsibilities, drawing on skills and knowledge not connected with their day-to-day teaching role. An English teacher helps a student with Geography homework. A Science teacher helps to run the Folk Club. A Maths teacher runs extra-curricular classes in Spanish. Coming at the end of a hard day, at lunchtime or at weekends it may seem like yet another burden, but teachers who volunteer typically described it as rewarding and invigorating: *"What I can do in study support is what I originally came into teaching for."*

## 4.4 The Learner Principle

Study support is by its very nature learner centred. Many students volunteered to attend because they wished to learn or to achieve a target, even if simply to get homework done on time. They selected a specific subject for further study because they recognise their own need.

> *"It is more serious now and I know I need to get the work done."* (Yr.11 student, Warley School, Sandwell)

> *"You can sort it out there and then at school. So it's easier at school and you can work in teams."* (Yr.11 student, Willows High School, Cardiff)

Students worked at their own pace. They chose with whom they work and from whom to seek help.

> *"It's a place to work with your friends. You can work at your own pace and it is different from the classroom. There's no disruption."* (Student, Oaklands School, Tower Hamlets)

This brings with it a significant shift in the role of the teacher and in the teacher-learner relationship. In Drop-in sessions teachers get to see students' work across a range of subjects, something they never experience in the course of their day-to-day work in their own subject classroom. In such a context, they have the opportunity to stand back and observe, to watch and get a deeper understanding of how students

learn, how they tackle their work, what they struggle with and how they respond to setbacks.

> *"I like it to be calm in here, there's got to be order... I'm there but I'm not there, if you understand. I'm there when they need me but I let them have their space... I let them settle... You've got to give them the benefit of the doubt... You can only get respect by respecting them." (Teacher, Broadgreen Community Comprehensive School, Liverpool)*

## 4.5 A Sense of Control

For teachers and students, study support offers a form of autonomy, which is not easy to achieve within the normal timetabled day. The pace and flow of the school day is dictated by administrative necessity and logistical constraints - the imperative of bells and moving on. Students and teachers both have to fit into structures that are not always teacher, or student, friendly. Students' predominant experience of classrooms is of time controlled by teachers, while teachers are often frustrated by the inability to extend their lessons, to follow up on learning difficulties, and to individualise learning. For both teachers and students satisfaction, morale and a sense of achievement were linked to a feeling of being in control.

> *"You can see the effects straightaway... You don't need to be told by a teacher that you've improved." (Student, Yardleys school, Birmingham, NFER case study)*

Study support offers to both parties a greater sense of control. This is vital to mental and physical health according to Martin (1997).

> *It is hardly surprising that our minds - and those of other species - should be so attuned to a sense of personal control, since control over the immediate environment is vital for most organisms' survival. Control signifies autonomy, mastery and empowerment. (Martin, 1997, p.145)*

Repeatedly students reiterated the importance of having control over the use of time, venue, working environment, and people to work with, or alongside. Apparently minor things such as where to sit, what to do first and what to do next assume considerable importance. The difference between teacher controlled and student controlled is illustrated in a recent European project (MacBeath et. al., 2000) which explored 'time as a resource for learning'. Students made important distinctions

between 'my time' as opposed to 'teacher time', emphasising the value to them of being in charge of how they used their learning time.

> *"It's not the teacher teaching us like at school. We do whatever we feel will help us." (Student, Sarah Bonnell School, Newham)*

> *"I'm more mature, responsible… We've all become more grown-up." (Student, Yardley school, Birmingham, NFER case study)*

## 4.6 Changing Relationships

Closely related to the themes of choice and control are teacher-student relationships. For students and teachers both this was one of the main benefits and attractions of study support. With the formalities and constraints of classrooms removed, both parties could relax more, be themselves and speak more personally. They could discuss things not related to the subject task in hand. The freedom to discuss clothes, music, cinema, sport, while 'off task' in a classroom context was an important aspect of relationship-building out of hours.

> *"They don't treat us like pupils and they don't act like teachers." (Student, Broadgreen Community Comprehensive School, Liverpool)*

Because the students chose to attend, teachers treated them more like adults, trusted them more and could offer both praise and criticism without the social sanction that often comes with being singled out by the teacher either for congratulation or a perceived 'put down'.

> *"You get more individual help from the teachers. If you're not sure about things you can ask for extra help from the teacher." (Student, Royal Docks Community School, Newham, NFER case study)*

Teachers and students could become 'different people' in a setting that shaped conduct and mind set and cast relationships in another mould.

## 4.7 The Peer Effect

Students and teachers were acutely aware of the influence of the peer group on participation in study support and the volatility of such relationships.

> *"It's a place to work with your friends. You can work at your own pace and it is different from the classroom. There's no disruption." (Student, Oaklands School, Tower Hamlets, NFER case study)*

Study support was often associated with being a 'swot' or a 'boff' and gender and ethnicity both played their part in establishing norms and perceptions of who study support is 'for'. This was not seen as an issue in the all-girls schools in the sample, where a large majority of students attended study support activities.

School effectiveness research has consistently identified a 'compositional effect' (Wilmms, Thomas, 2001) referring to the critical mix of ability and attitudes within the peer group and its effect on raising and lowering attainment. This would seem to be playing a part in the schools in our study and students commented frequently on the nature and importance of the social mix. Students had 'permission' to behave differently in the different peer environment of study support in which it was 'OK' or 'cool' to learn. Drawing on a large body of research Harris (1998) coins the term 'the Cinderella Syndrome' to describe the way in which young people adjust their behaviour, language and motivation according to the peer group contexts in which they find themselves.

> *"I want people to be here. I don't want to work alone...The good people come here – they're not just dossing about. Nobody disturbs you down here." (Student, Yardley's School, Birmingham)*

The importance of relationships within the peer group is as significant a factor as relationships with teachers. A frequent reason given for enjoying study was that you could work with your friends. Students could work both in groups and individually within a group. Simply being in a sociable, relaxed but business-like context was a positive benefit in itself as well as a precursor to learning. Students also made much of not being distracted by disruptive behaviours. On the one hand, there was the benefit stemming from the fact that 'the silly ones don't come' but on the other hand, evidence that when 'silly ones' come they behave differently in a more supportive environment.

> *"People want to be there, so there's no messing around." (Student, Byng Kenrick Central School, Birmingham, NFER case study)*

Being accepted by your peers and having good social skills leads to raised school performance and more positive motivation. (Vygotsky, 1978, Bruner, 1996)

## 4.8 Learned Independence

It requires a high degree of self-confidence to free oneself from the powerful expectations of the peer group. While being seen as a 'swot' or 'boff' was a deterrent to students who did not participate, students who did participate often said that such comments had ceased to worry them. Study support also provided an opportunity to free oneself from dependence on teachers, from being provided with the answers, rewarded and cajoled into achievement. Participants could learn to be self-regulating.

*"We were given responsibility – everything wasn't handed out on a plate."*
*(Yr.9 student, Byng Kenrick Central School, Birmingham)*

Findings from this study receive strong support from other sources. These show a strong and important link between self-regulation, choice, control and academic success (Wigfield, Eccles, and Rodriguez 1998). When students have a positive sense of their ability to do a task, they are more likely to choose to do it, to persist at it, and to maintain their effort. This belief in their own self-efficacy is an important predictor of future performance over and above prior attainment. Conversely a major cause of under-achievement is the inability of students to take responsibility for their own learning (Seligman, 1984). When students think they are competent they are more likely to be motivated for intrinsic reasons and need less external exhortation or inducement. Other studies (Dweck and Licht, 1980; and Perkins 1995, 1998) have described typical under-achievers as more impulsive, with lower academic goals, less accurate in assessing their abilities, having low self-esteem, less persistence and more likely to give up on tasks more easily.

*"It has made me confident and independent… Now I can stand in front of my entire year group and do my dancing and speaking. A while ago I couldn't do that." (Yr.11 student, Shireland Language College, Sandwell, NFER case study)*

Self-regulated learners are more likely to seek help from teachers and peers and, as evidence from students shows, this is much more socially approved in a study support context. Seeking help in a classroom environment may be seen as an admission of failure or as too positive a demonstration of interest in the lesson. It is, however,

those most in need of help (those with a lower sense of competence and self-esteem) who are least likely to engage in seeking help.

## 4.9  Access to Resources

A reason for attending study support is that it gives access to resources which students may not have at home or can share with their peers.  This includes books, articles, magazines and journals, past examination papers, audio and video cassettes, computer software and Internet access.  Over the lifetime of the study, schools have seen a significant increase in the provision of ICT, some of this attributable to new sources of funding, in particular NOF.  The following example from Broadgreen Community Comprehensive School in Liverpool illustrates the changing nature of study support provision.

> *Café Ask is located in the 'Open Resource Area' (the school library).  It is a sizeable L-shaped room with several different areas including the general purpose library; a specialist careers section; computing and a video-editing suite.  There are 15 PCs, a printer and a photocopier available.  The Learning Resource Manager has recently been successful in bidding for and securing 15 new PCs with Internet access and a scanner.  The study support coordinator has spent substantial sums of money on acquiring reading books, study guides and other print-based materials as part of her goal 'to introduce a reading culture'.  The careers provision had also been substantially enhanced. (NFER case study, Broadgreen Community Comprehensive School, Liverpool)*

## 4.10  An Ethos of Achievement

> *"The atmosphere of this place is vital… I see it as an area where kids can be happy but also where they can work." (Manager of Café Ask, Broadgreen Community Comprehensive School, Liverpool)*

The essence of this statement from the manager of Cafe Ask is repeated consistently in comments from other schools.  The essential purpose of study support is to raise achievement and to do so in a safe, comfortable, relaxed ethos in which the unambiguous message is one of independent and inter-dependent learning.  While libraries typically served as a base for Drop-in study support, many have moved away from the traditional library model towards a learning resource area with differentiated provision.  The reverential hush of the library had been replaced by a higher decibel buzz of activity, providing time and space for group interaction as well as for quiet

individual study. The provision of refreshments is another step away from the traditional library or classroom environment towards the more café-like environment, which is inviting to young people.

## 4.11  Supporting Study Support

### 4.11.1  Built-in rather than bolt-on

The contribution of study support to raising achievement can be for a relatively small group who participate or for a large majority of school students. The evidence shows that the greater the participation the more beneficial the effect on the school . It is not, however, a matter of numbers but a matter of policy. That is, study support contributes most when it is an integral part of a whole school approach to learning in and out of school. Where it has the active support of the head teacher and/or senior management its profile and priority among staff and students is likely to be higher. In St. Kentigern's, for example, the Headteacher played an active part in introducing study support, publicising it with parents, encouraging students to attend, funding transport home in the evenings as a high budgetary priority.

At Oaklands School in Tower Hamlets,

> *Study support is highlighted in the school development plan for raising*
> *achievement. There is now little distinction between study support and the rest*
> *of school life…*
> *(NFER case study, Oaklands School, Tower Hamlets)*

Study support coordinators were pivotal figures. The success of study support, in many cases, hinged on their enthusiasm, advocacy and management skills. Where they were members of the senior management team it helped to raise the status of study support as well as providing the bridge into school-wide policy making.

At Hampstead school,

> *The combined roles of the coordinator as director of ICT and independent*
> *learning have helped to establish study support as an integral part of the*
> *school. As a member of the SMT, the coordinator has sufficient status to ensure*
> *that study support maintains a high profile throughout the school.*
> *(NFER case study, Hampstead School, Camden)*

While at Oaklands school,

*The deputy head can be seen as the initiator and driving force in setting up the Study Centre following consultation with students and parents....... The coordinator, working closely with the deputy head, make a powerful team. Both of them are members of the SMT which ensures that study support remains a whole school priority.*
*(NFER case study, Oaklands School, Tower Hamlets)*

### 4.11.2 Students as active players

In some cases students played a relatively passive role as consumers of study support, in others a more active role in shaping and evaluating the study support programme. Where the latter was the case evidence from students and staff suggested that this increased their identification with, and ownership of, study support. A more active, and proactive, involvement was also seen as embedding some of the key skills of initiative taking, teamwork, decision-making and leadership. Not all schools used student mentors but those that did felt they added an important dimension to provision both for the mentored and for those who did the mentoring.

*Mentoring was a key part of the study support provision on offer. There were mentors from Yrs.7, 9, 10 and 11, each supporting different year groups of students. The younger students from Yrs.7 and 9, mentored Yr.5 and 6 pupils from the feeder primary schools whilst the Yrs.10 and 11 groups mentored pupils from the primary schools and younger students at Shireland. The mentors were not paid but they did feel proud of their involvement because it gave them a sense of achievement. Older students had the added benefit of having something positive to write in their National Records of Achievements.*

*One Yr.10 student who mentored in the Science sessions was a student known by the school as someone who regularly played truant and did not enjoy school. However, she made the effort to attend the after-school sessions as a mentor. The student mentors enjoyed their role as they were allowed to plan the format of study support sessions and deliver it to the younger students. They said it gave them an insight into being a responsible person and provided an opportunity to build up their communication and social skills. (NFER case study, Shireland language College, Sandwell)*

*"By teaching others how to mind map, or whatever, it fixes it more firmly in your mind." (Student, Yardley's School, Birmingham)*

In some schools, there was also a direct correlation between mentoring and value-added attainment. As mentoring requires a degree of sensitivity and skill support and/or training for mentors is an important consideration.

*Some 40 students drawn from Yrs.11 to 13 have now undertaken the equivalent of a two-day training programme. The coordinator has based the training around the City and Guilds course in Learning Support, and the students will qualify for City and Guilds certification when their training is complete. (Teacher, Byng Kenrick Central School, Birmingham, NFER case study)*

### 4.11.3  Involvement of other agencies

The range of opportunities offered through study support was enhanced by the involvement of community agencies and organisations such as arts, sports, museums, galleries and business.  These not only extended the range and scope of activities but put learning into a broader context.  Coordinators in schools particularly appreciated the work of outside volunteers from business, higher education institutions and the community who could also help to broaden students' experiences and perspectives.

*Outside experts were also brought in to run study support courses in response to students' requests.  The study support coordinator enlisted the support of external bodies as a way of increasing interest in courses.  He said:* We target groups that are in danger of disaffection with activities that they want to do.  So for example we have a hip-hop course running – where we are bringing in a 'super cool' outside expert and getting loads of kids in the hall.  We hope that this will  increase their attendance and motivation to school.  The hidden thing that would certainly benefit them is that involvement in out-of-hours courses would feedback into the core curriculum. (*NFER case study, Swanshurst School, Birmingham*)

One example of this was a programme newly introduced in Sarah Bonnell School in Newham.  It is run in conjunction with staff from Newtec in (Newham FE College) which is sited directly opposite the school, and involving three local primary schools.  Funded by NOF, for children and their parents from Yrs.5 to 10 the programme consists of weekly after-school sessions on ICT.

External organisations often enabled schools to meet the needs of particular target groups.

*The study support courses are often outside the subject areas.  Study support is more relaxed than classroom teaching.  We are able to be more spontaneous in study support and pick up on student demand.  We can target particular students.  For example, we have under-achieving White boys here.  So last year we set up a short course with Leyton Orient Football Club which was very good – an hour of soccer-themed work is rewarded by a hour of professional coaching.  (Teacher, Oaklands School, Tower Hamlets, NFER Case Study)*

### 4.11.4  Critical Friends, networking and professional development

Schools valued the external support that was offered to them.

*Support was provided from the SSNEDP, notably, through the 'Critical Friend' and the various conferences. The coordinator considered that the combination of the UFA and the SSNEDP had been a positive motivating force, making her feel part of a much broader national initiative. (NFER Case Study, Byng Kenrick Central School, Birmingham)*

*The coordinator has benefited from the involvement of various external agencies, including the LEA coordinator for study support and the Critical Friend associated with the National Youth Agency study support programme. (NFER Case Study, Walker Comprehensive School, Newcastle)*

The support of Critical Friends was particularly valued. They brought an external view, critical insights, a source of information and networking with other schools and other organisations. Critical Friends played an important role through conferences, seminars and workshops. These provided opportunities for schools to learn from one another, to share good practice, and to reflect critically on future directions for study support. In this the Codes of Practice (for primary and secondary and for libraries) played a useful part. These opportunities for continuing professional development were valued by participating staff because they not only enhanced study support but because lessons learned fed back into mainstream classroom teaching.

The coherent professional development programme available to the UFA schools illustrates this point.

*The UFA scheme funded the release of the Fellows for two years and provided staff with training in multiple intelligence theory and its application to learning. (NFER Case Study, Byng Kenrick Central School, Birmingham)*

### 4.11.5  Local authorities

Local authorities also played a major role in financing, support, monitoring, evaluation and professional development. In many cases they offered professional development programmes provided opportunities for coordinators to meet each other and exchange ideas.

> *The LEA also had a role in providing an opportunity for coordinators from different schools to meet and discuss study support provision. (NFER Case Study, Broadgreen Community Comprehensive School, Liverpool)*

Some LEAs played a more proactive role than others. Success with obtaining funding from NOF was one of the most conspicuous contributions. Where an authority, such as Tower Hamlets for example, had worked closely with schools to put in a strategic,

authority-wide, bid it had not only brought direct resourcing to schools but was underpinned by a coherent collaborative development plan.

> *The LEA have played an important role for the development of study support, as the coordinator explained:*
> *The LEA act as the hub for information and they organise a meeting for study support coordinators from the LEA schools. This began as an informal group but since September 1999 we meet on a weekly basis and share good practice. (NFER Case Study, Oaklands School, Tower Hamlets)*

Staff of local authority advisory services and education directorates played active roles in supporting schools, brokering information and good practice and networking within and across their authorities.

> *The LEA has maintained a level of support but schools have played a leading role in the development of study support. The LEA has taken on a coordinating role. In the early stages there had been regular meetings with two LEA employees, whose main contribution was seen in terms of providing a monitoring service for the European Social Funding, organising network meetings for study support coordinators from the participating schools, and arranging in-service training. (NFER Case Study, Campion School, Liverpool)*

## 4.12  Summary

The evidence, both from case studies and the authentic voice interviews, illustrates the processes whereby study support becomes an effective means of helping students to do much better at school. Choosing to learn out of school hours is rewarded by the pleasures being with friends, a relaxed setting and different relationships with peers and adults. Engagement leads to a virtuous circle of experience of success, growth of self-confidence as a learner and so to further engagement in learning. Students become more self-regulated learners. Once a critical mass is reached this has an impact on the ethos of the school

> *The coordinator perceived that it was the students themselves who were, as he put it, 'the change agents'. He continued: 'Pupils are acting as the catalyst. All this year's Yr.7s and some of last year's Yr.8 are used to operating in this (i.e. the UFA) way'. It was they who were subtly urging colleagues to modify their approach to learning. (NFER Case Study Yardley's School, Birmingham).*

This study has tracked students only for three years. Ten year studies in the United States of the effect of extra-curricular activities suggest that not only does participation affect learning well after students have left school but also wider life choices. (Barber, Eccles and Stone, 2000)

# Chapter 5  Conclusions and Recommendations

Summary
We conclude that the findings of this study are educationally highly significant.  The effectiveness of study support derives not just from more time spent in study and closer support from staff but from the ethos and consequent engagement of students.  Study support can help improve schools and can influence the attitudes to learning of teachers and parents as well as students.
We make recommendations about the involvement of students and about the way schools should plan, evaluate and manage provision, laying emphasis on the voluntary nature of participation.  We further recommend that study support should be seen as an element of all initiatives to raise achievement and promote social inclusion.  Professional development of staff, coordinated planning and assured long-term funding are therefore necessary.

## 5.1  Raising Students' Achievement

Study support makes a difference.  It has an impact on three key aspects of students' school careers:

- attainment at GCSE and KS3 SATs
- attitudes to school
- attendance at school.

These findings were consistent for all groups of students in all schools in the study.  Although our sample of schools is heavily biased to those serving more disadvantaged populations, benefits to other groups of students regardless of geography, socio-economic status, gender and ethnic background are likely.  We believe that study support has a much wider and far-ranging potential than in the schools represented in this study.

### 5.1 1  Attainment

The effects we found are not only statistically highly significant but also educationally very powerful - for the senior cohort an added value of an average of one A-C pass at GCSE or three and a half grades on the Best 5 scores and one third of an SATs grade in Maths and three-quarters of a grade in Science for the junior cohort.  These were the findings for the whole sample.  Effects in individual schools and for individual students showed even more substantial gains.  School by school analysis has so far been limited but shows that some schools achieve significantly larger impacts on attainment and attitude change than others, leading us to conclude that study support can have a larger effect than in our average figures across all schools.

As we were unable to measure the number of hours of study support for any given student, the outcome measures necessarily conceal variations in the amount of time students were involved. We did find, however, that there was a cumulative effect on those students who attended a number of different categories of provision. It is a reasonable inference that a cumulative effect also applies, to an extent, to the amount of participation within any one form of provision.

We found that for students from some ethnic minority groups, and to a lesser extent for students on free school meals, the effect was double than that for the rest of the cohorts.

Attending Subject-focussed study support has the largest effect on attainment consistently across the sample. But other forms of study support such as Sport, Aesthetic activities and Peer education have strong effects too and these cannot be due to increased time spent in study. We conclude, therefore, that the ethos of study support and the experience of success changes student attitudes to themselves and to learning.

### 5.1.2 Attitudes

We found that attitudes are strongly influenced by participation in study support, in Yr.11 principally by Subject-focussed provision. This correlates with what students told us about the importance they attached to doing well at GCSE. The effects on attitudes of participation in study support in Yr.10 derive from participation in non-Subject-focussed provision.

We conclude that this is due to the changed ethos of study support sessions already alluded to. The young people to whom we spoke emphasised the importance they placed on being given responsibility for their own learning and in supporting the learning of others. We believe that the opportunities presented by study support to students to encourage, advise, coach and teach their peers can, if planned and implemented carefully, have major beneficial effects in the transforming of attitudes to learning, not simply for students but for teachers, parents and others who become involved. Evidence of participation by students in planning and provision, in

mentoring and team working presents opportunities for the extension and enrichment of the citizenship curriculum.

We have heard frequently from students and staff not only of the almost complete absence of disruptive behaviour in study support sessions but also, and more significantly, of the changed behaviour of students who are frequently disruptive in the classroom. While study support is not a panacea, it is an extra source of support for young people with low self-esteem and caught in the vicious circle of low achievement-low motivation and minimal engagement with school. Involvement in study support, learning with and from others, and helping others to learn can lead to a re-engagement with school and a new motivation for learning. This process we have described as the 'virtuous circle'.

These important findings raise issues about how study support can be used as a strategy to enhance student outcomes in a wider context and on a longer-term basis.

### 5.1.3 Attendance at school

We found that participation in Yr.11 Drop-in and Subject-focussed study support had significant impact on Yr.11 attendance at school across the whole sample.

We conclude that the effects on attendance derive from the impact on attitudes considered above.

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**Recommendation 1  Programme planning**

In planning and delivering study support, schools should pay particular regard to the evidence that:

- participation in both Subject-focussed and non-Subject-focussed activities have an impact on attainment, attitudes and attendance.  The range of provision therefore needs to be broad.
- the effects of participation endure over time.  Opportunities should therefore be offered early in students' school careers
- study support has a much higher impact on minority ethnic students and a significantly higher impact on students eligible for free school meals than on the sample as a whole.

**Recommendation 2  Self-regulated learning**
Within study support provision, opportunities should be maximised for students to:
- choose with whom they work, (adults and peers)
- have access to resources on an equitable basis
- be trusted
- be given responsibility.


## 5.2  Study Support and School Improvement

### 5.2.1  Promoting participation
Within the project schools there was a very wide range of participation rates amongst the students.  Schools which had high participation rates had broad and imaginative programmes, paid attention to students' "quality criteria" and  publicised the provision systematically.


We found there was a lower likelihood of participation amongst students with low academic self-esteem.  We also found that prior participation in study support increases the likelihood of subsequent participation.  Although our findings relate only to secondary schools and are strongest for KS4, the qualitative evidence from the junior cohort and the finding of indirect effects, suggests that habits may need to be established early. There is certainly a consistent view from study support staff that opportunities should be provided at as early a stage as possible.


**Recommendation 3  Monitoring and evaluation**
Schools should regularly review their provision and participation rates.  Links with school attendance should also be scrutinised.  Students should be regularly consulted about the appropriateness of provision and individual students who stop participating should be interviewed to ascertain the reason.

**Recommendation 4  Marketing and publicity**
Schools should plan how to inform students, parents and the wider community about what is on offer.  There needs to be an ongoing marketing strategy, which may include incentives, rewards, 'taster' sessions and other forms of celebration.

**Recommendation 5  Choice**
Choice has been an important aspect of the success of study support so students must be free to choose whether or not to be involved in these activities.  This does not preclude persuasion, targeting and other incentives to attract the young people most in need of extra support.

## 5.2.2 Effective management of study support

The implications of the above recommendations are that study support has to be seen as an integral part of the school's life and work and managed accordingly. The case study evidence provides many examples of how this has been done effectively. (See Appendix 4)

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**Recommendation 6  Management**
Study support will bring greatest benefit if approached strategically at whole school level and included in the school development plan. Study support coordinators in schools should be given the time and the authority to develop programmes, which will have impact at whole school level. Teachers, other staff and students should be integrally involved in decisions about what provision is made and in what form.

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We have attributed the effectiveness of study support not merely to the extra time it gives to students for study and revision but to the engagement with their own learning that comes from a different kind of learning environment. We have found consistent evidence on the importance of this voluntary context for learning, applying to both students *and* staff. This produces a change in teacher-student relationship and in the ethos of the learning environment. The conclusion that participation in study support should be voluntary is a direct consequence of these findings. Voluntary participation by staff does not, however, presuppose that it should be unpaid. Recognition and reward are important and signal that study support is a clear educational priority.

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**Recommendation 7  Choice by staff**
Teachers and other staff should also be free to decide the nature of their involvement in out-of-hours activities. As with students, this does not preclude persuasion, incentives or targeting of those staff with most to offer.

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Helping young people to learn in study support covers a different, though related, set of skills to those of classroom teaching. We have found evidence of the valuable contributions made by volunteers, non-teaching staff and other professionals in creating exciting and challenging learning opportunities. We conclude that professional development for teachers is necessary to enable them to broaden their repertoire of skills and that inter-professional development can play an important part in that process for teachers as well as for youth workers, librarians and others.

Inter-professional training can also provide opportunities to share practice across sites and to explore the potential of museums, galleries arts and sports organisations in capturing young people's interest and engagement.

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**Recommendation 8  Professional development**
While facilitating study support in itself may be a useful form of in-service, there is need for further professional development, for coordinators, teachers and others who serve in a coaching, mentoring or tutoring capacity.  Training should be available to learning support staff and non-teaching staff in schools and, where appropriate, to other organisations and staff such as librarians, youth workers and Learning Mentors.

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The LEA has a role to play in considering how study support may be incorporated into other professional development programmes.


## 5.3  Strategic Planning for Study Support

### 5.3.1  LEAs and similar bodies
We have clear evidence from the case studies and from the work of the Critical Friends with all the schools in this study that LEAs, Education Business Partnerships and similar bodies have played a valuable role in encouraging study support not least through planning and supporting funding applications.

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**Recommendation 9  Development plans**
In light of the evidence of study support's impact, the development of study support should be reflected in LEA's Education Development Plans. This is of special relevance to initiatives that focus on raising achievement and innovative approaches that extend beyond the classroom. This would include Schools in Challenging Circumstances, Excellence Clusters and Excellence in Cities Areas, and the specific plans of Education Action Zones. All of these initiatives should identify ways in which study support can be made integral to their planning and provision.

**Recommendation 10  Partnerships**
Given the use of staff from different agencies and the various loci of study support in schools, libraries and community centres, developments at LEA level are likely to be most effective when there is inter-agency support.  Local authority coordinators should, therefore, work in partnership with other study support providers such as museums, galleries, Sports and arts organisations and the Youth Service.  This should enable schools to provide a wide range of learning of opportunities for their students with minimum administrative burden.

**Recommendation 11  Evaluation**
The implementation of monitoring and evaluation of study support will be greatly enhanced where there is effective local authority support.  The authority can also play a useful role by providing benchmarking information.  Effectiveness will be promoted where LEAs conduct routine analyses of the impact of study support in schools across the authority.

**Recommendation 12  Transport**
In their school transport plans LEAs will need to consider how to introduce flexibility into transport arrangements to permit increasing numbers of students to participate after school. Schools also need to play a proactive role in needs assessment, costs and making the case for a transport service to support out-of-hours provision.

**Recommendation 13  ICT**
In the planning of local learning grids, attention should be given to ensuring that the procedures and resourcing take full account of study support activities which take place at evenings and weekends and in holidays.  The provision should also acknowledge the increasing benefits of students being able to access their school work from outside school.

### 5.3.2  Central government

Study support has only relatively recently been seen by the government as a strategy to raise achievement.  Significant funding has been available to support the initiative and we believe that our study has validated the use of public money for these purposes.  Given that for many schools involved in our research, study support programmes have been a recent development, it may well be, with growing experience and expertise, that the effects become even greater over a longer term.

For these benefits to be realised, schools, LEAs and other providers of study support must be convinced that the time and energy invested in its development will be sustainable.  We believe, therefore, that clear indications of a longer term funding programme for all out-of-school-hours learning are essential.

**Recommendation 14  Sustainability**
Consideration should be given as to how the expansion of study support will be supported when current funding streams end.

An expansion of study support has implications for the work of teachers in the classroom and how schools are led and managed.  We therefore conclude that

guidance and support must be given to those charged with responsibilities, initial

teacher training and subsequent professional development to enable them to take

account of these implications and the findings of this study.

**Recommendation 15  School leadership and initial teacher training**
Leadership programmes should include opportunities to address management aspects
of study support and help school leaders to evaluate costs and benefits.  Initial training
programmes should cover the benefits of study support and include opportunities for
students and NQTs to participate as part of their teaching practice and induction.

Study support can only fulfil its potential to raise achievement when integrated with

other national strategies to promote social inclusion.

**Recommendation 16  Connection with other policies**
Guidance on effective study support provision should be included in the planning of
social inclusion and raising achievement strategies such as City Academies, Specialist
and Beacon Schools and small EAZs.

### 5.3.3  Further research

This study has answered the questions with which it was charged.  During the

research other questions have arisen which are worthy of further consideration.  We

believe that policy makers and practitioners would appreciate having more

understanding of:

- the strategies that successfully engage the most disaffected students
- the mechanisms whereby sport and aesthetic activities impact on academic attainment and on non-academic outcomes such as self confidence and aspirations
- the long term impact of study support and more widely defined extra-curricular activities on engagement in lifelong learning and on other life chances
- the complex interactions between ethnicity, gender and social class in engaging young people in learning.

# Appendix 1a  The Partner Schools and Authorities

**Bedfordshire and Luton EB Partnership**
Mrs Venessa Bolton
Deputy Director
The Business Centre
Kimpton Road
LUTON  LU2 0LB

**John Bunyan Upper School & Community College**
Mile Road
BEDFORD  MK42 9TR
Headteacher: Mrs Gillian Bryan
Improving Achievement
Coordinator: Mr Neil Smith

**Birmingham City Council**
**University of the First Age**
Principal: Ms Chrissie Garrett:
Extended Learning Development
Officer: Ms Louise Darby:
Education Offices
Newtown Office Block, 2nd Floor
Alma Street  Newtown
BIRMINGHAM  B3 3BU

**Byng Kenrick Central School**
Gressel Lane
BIRMINGHAM  B33 9UF
Headteacher: Mr Karl Turner
Supported Study Coordinator:
Ms Lyn Reynolds

**Golden Hillock School**
Golden Hillock Road
Sparkhill
BIRMINGHAM  B11 2QG
Headteacher:
Miss Thelma Probert
Deputy Head: Mr Tim Boyes

**The Heartlands High School**
Great Francis Street
BIRMINGHAM  B7 4QR
Headteacher: Mr Tony Leech
Study Support Coordinators:
Ms Sheila Caberwal and
Mr Malcolm Jackson

**Moseley School**
College Road
Moseley
BIRMINGHAM  B13 9LR
Headteacher: Mrs Mary Miles
Study Support Coordinator:
Mr Tony Thacker

**Queensbridge School**
Queensbridge Road
Moseley
BIRMINGHAM  B13 8QB
Headteacher: Mrs  C J Pitt
Support Coordinator:
Mr Mark Stock

**Shenley Court School**
Shenley Lane
BIRMINGHAM  B29 4HE
Headteacher: Mr Keith Dennis
Study Support Coordinator:
Ms Rachel Baker

**Swanshurst School**
Brook Lane
BIRMINGHAM  B13 OTW
Headteacher:
Ms Margaret Threadgold
Study Support Coordinator:
Mr Guy Shears

**Yardleys School**
Warwick Road
Tyseley
BIRMINGHAM  B11 2LT
Headteacher: Mrs Heather Jones
Study Support Coordinator:
Mr Roger Millard

**London Borough of Camden**
Mr Steve Davies
Inspector for IT and
Learning Languages
Education Department
Crowndale Centre
218-220 Eversholt Street
London  NW1 1BD

**Hampstead School**
Westbere Road
LONDON  NW2 3RT
Headteacher:
Mr Andy Knowles
IT & Study Support Coordinator:
Mr Phil Taylor

**Haverstock School**
Crogsland Road
LONDON  NW1 8AS
Headteacher: Mr John Dowd

**South Camden Community School**
Charrington Street
LONDON  W1 1RG
Headteacher: Mr Huw Salisbury

**Cardiff City Council**
Ms Judith Beck
NOF Out-of-Hours Learning
Coordinator
Cardiff City Council
Education Department
County Hall  Atlantic Wharf
CARDIFF  CF1 5UW

**Cathays High School**
New Zealand Road
CARDIFF  CF4 3XG
Headteacher: Mr A Wilson
Deputy Head: Mrs Marion Curtis

**Fitzalan High School**
Lawrenny Avenue
Leckwith
CARDIFF  CF1 8XB
Headteacher: Mr Angus Dunphy
Study Support Manager:
Mr Rob Morse

**Glan Ely High School**
Michaelston Road
Ely
CARDIFF  CF5 4SX
Headteacher: Mr Peter Leech
Quality Manager (SMT):
Mrs Anita Francis

**Rumney High School**
Newport Road
Rumney
CARDIFF  CF34 8XG
Headteacher: Mr Gerald Walters
Learning Centre Coordinator:
Mr Keith Thomas

**St Illtyd's High School**
Newport Road
Rumney
CARDIFF  CF3 8XQ
Headteacher: Mr Michael Chaplin
Deputy Headteacher:
Mr Michael Worthington

**Willows High School**
Willows Avenue
CARDIFF  CF2 2YE
Headteacher: Mr Mal Davies
Deputy Headteacher:
Mrs Helen Jones

**Durham County Council**
Mrs Anne Timothy
Study Support Coordinator
The Stanley Education Centre
King Edward VII Terrace
Shield Row
STANLEY  DH9 0HQ

Mr Ralph Higgs
General Inspector
Durham Education Dept
County HalL
DURHAM  DH1 5UJ

**King James I Community College**
South Church Road
BISHOP AUCKLAND
DL14 7JZ
Headteacher: Mr Edward Lott

**Stanley School of Technology**
Tyne Road
Stanley
DURHAM  DH9 6PZ
Headteacher: Mr David Grigg
Learning Support Coordinator:
Ms Kay Walker

**Liverpool City Council**
Ms Dot Murphy
Study Support Coordinator
Liverpool City Council
Education & Lifelong
Learning Service
4 Renshaw Street
LIVERPOOL  L1 4AD

**Anfield Comprehensive School**
Priory Road
LIVERPOOL  L4 2SL
Headteacher:
Mr Stephen Rowland
Study Support Coordinator:
Ms Diane Easby

**Broadgreen Community Comprehensive School**
Queens Drive
LIVERPOOL  L13 5UQ
Headteacher: Mr Ian Andain
Assistant Headteacher:
Ms Judy Boyce

**Campion Catholic High School**
Prince Edwin Street
LIVERPOOL  L5 3RW
Headteacher: Mr Eric Wallace
Study Support Coordinator:
Mr James Kayes

**Fazakerley High School**
Sherwoods Lane
Fazakerley
LIVERPOOL  L10 1LB
Headteacher: Mr Nick Fleming
Study Support Coordinator:
Mrs Suzanne Chester

**Newcastle City Council**
Mr Roger Edwardson
Assistant Director
Newcastle City Council
Education Department
Civic Centre
NEWCASTLE  Tyne & Wear
NE1 8PU

Ms Monica Lewes
Study Support
Development Officer
Newcastle-upon-Tyne
City Council
Education & Libraries Directorate
Pendower Hall Education
Development Centre
West Road
NEWCASTLE-UPON-TYNE
NE15 6PP

Mr Jim Wood
Study Support Adviser,
Newcastle LEA
Tyneside and Northumberland
Students into Schools
Joseph Cowen House
St Thomas St
NEWCASTLE  NE1 7RU

**Gosforth High School**
Knightsbridge
Great North Road
NEWCASTLE-UPON-TYNE
NE3 2JH
Headteacher:
Mr Keith Nancekievill
Study Support Coordinator:
Mrs Joan Stokoe

**Kenton School**
Drayton Road
NEWCASTLE-UPON-TYNE
NE3 3RU
Headteacher: Mr David Pearmain
Study Support Coordinator:
Ms Annabel Allport

**Walker Comprehensive School**
Middle Street
NEWCASTLE-UPON-TYNE
NE6 4BY
Headteacher: Mr Anthony Broady
Head of Learning Support:
Mrs Linda Wafer
Study Support Coordinator :
Ms Diane Cooper

**West Denton High School**
West Denton Way
NEWCASTLE-UPON- TYNE
NE5 2SZ
Headteacher: Mr Mike Heckels
Assistant Headteacher:
Mrs Jean Langley

**Westgate Community College**
West Road
NEWCASTLE-UPON-TYNE
NE4 9LU
Headteacher: Mr Phil Turner
Study Support Coordinator:
Mr David Thornton

**Newham LEA**
Ms Bala Bawa
Learning Community
Project Director
Beckton Globe Centre
1 Kingsford Way, Beckton
LONDON  E6 5JQ

**Forest Gate Community School**
Forest Street
LONDON  E7 OHR
Headteacher: Mr A Richardson
Senior Teacher & Coordinator:
Mr Colin Ayres

**Lister School**
St Mary's Road
LONDON  E13 9AE
Head: Mr Martin Buck
Study Support Coordinator:
Mr Robert Berry

**Royal Docks Community School**
(former Woodside Community
School)
Prince Regent Lane
LONDON  E16 3HS
Headteacher: Ms Patricia Bagshaw
Study Support Coordinator:
Ms Helen Woolgar
Community Tutor:
Ms Deborah Crossman

**Sarah Bonnell School**
Deanery Road
Newham
LONDON  E15 4LP
Headteacher: Ms Cauthar Tooley
Study Support Coordinator:
Ms Sue Swift

**Sandwell EBP**
Ms Halina Gammie:
EBP Coordinator
Ms Joanne Moore:
Sandwell LEA Study Support
Coordinator
Black Country House
Round Green Road
Oldbury
WARLEY, West Midlands
B69 2DG

**Bristnall Hall High School**
Bristnall Hall Lane
OLDBURY  B68 9PA
Headteacher: Mr Robert Dyson
Study Support Coordinator:
Mr Steven Hall

**Churchfields High School**
Church Vale
WEST BROMWICH  Sandwell
B71 4DR
Headteacher: Mr John Williams
Study Support Coordinator:
Ms Jane Sharpe

**George Salter High School**
Claypit Lane
WEST BROMWICH  B70 9UW
Headteacher: Ms Hilary Sargeant
Study Support Coordinator:
Mr Gary Skowron

**Perryfields High School**
Old Acre Road
Oldbury
WARLEY  B68 ORG
Headteacher:
Mrs Jospehine Martin
Study Support Coordinator:
Ms Marian Fearon

**Shireland Language College**
Waterloo Road
WARLEY  B66 4ND
Headteacher: Mr Mark Grundy
Study Support Coordinator:
Mrs Balbir Sandhu

**St Michael's C of E High School**
Throne Road
ROWLEY REGIS  B65 9LD
Headteacher:
Mr Rod Worthington
Study Support Coordinator:
Mr Michael Wilkes

**Tividale High School and Community College**
Lower City Road
Tividale
WARLEY  B69 2HE
Headteacher: Mr Paul Sharratt
Study Support Coordinator:
Mr David Dumbell

**Warley High School**
Pound Road
Oldbury
WARLEY  B68 8NE
Headteacher: Mr John Martin
Senior Teacher:
Mrs Jan Woodward

**Sheffield City Council**
Dr Robert Gregory
Head of Partnership and
Regeneration
Sheffield Education Department
Leopold Street
SHEFFIELD  S1 1RJ

**Chaucer Community School**
Wordsworth Avenue
SHEFFIELD S5 8NH
Acting Headteacher:
Ms Stone
Out-of-Hours Learning
Coordinator: Mr Tom Sykes

**The Herries School**
Penrith Road
SHEFFIELD  S5 8UF
Headteacher: Mr Mike Cavanagh
Curriculum Enrichment:
Mr R B Fisher
**Now reopened as Parkwood High School**

**Yewlands School**
Creswick Lane
Crenoside
SHEFFIELD  S35 8NN
Headteacher:
Mrs Patricia Whittaker
Study Support Coordinator:
Ms Lynn Smith

**London Borough of Tower Hamlets**
Mr Andrew Goodman
Study Support Coordinator
Tower Hamlets
Study Support Project
Professional Development Centre,
Room 206
English Street, Mile End
LONDON  E3 4TA

**Central Foundation Girls School**
31-33 Bow Road
Bow
LONDON  E3 2AW
Headteacher: Miss Patricia Hull
Curriculum Enrichment
Coordinator:
Miss Jashinder Bains

**George Green's School**
100 Manchester Road
LONDON  E14 3DW
Headteacher:
Mrs Kenny Fredericks
Study Support Coordinator:
Ms Stella Bailey

**Langdon Park School**
Byron Street
Poplar
LONDON  E14 ORY
Headteacher: Mr Chris Dunne
Study Support Coordinator:
Ms Irene Bowthorpe

**Mulberry School for Girls**
Richard Street
Commercial Road
LONDON  E1 2JP
Headteacher:
Dame Marlene Robottom
Study Support Coordinator:
Ms Sharon Barbour

**Oaklands School**
Old Bethnal Green Road
LONDON  E2 6PR
Headteacher: Miss Joe Dibb
Study Support Coordinator:
Ms Janis Fuller

**SCOTLAND**

**<u>North Lanarkshire Council</u>**
Ms Alison Cameron
Policy Advisor
Floor 1, Municipal Buildings
Kildonnan Street
COATBRIDGE  ML5 3BT

**St Aidan's High School**
Waverley Drive
Lanark Division
WISHAW  Strathclyde
ML2 7EW
Headteacher:
Miss Rosemary McDonald
Assistant Headteacher:
Mrs Ann Hamilton Smith

**<u>West Lothian Council</u>**
Lindsay House
South Bridge St
Bathgate
EH48 1TS

**St Kentigern's Academy**
West Main Street
Blackburn
BATHGATE
Lothian
EH47 7LX
Headteacher:
Mrs Kathleen Gibbons
Study Support Coordinator:
Mr John Flyn

# Appendix 1b  The Associate Schools and Authorities

**Brighton and Hove Council**
Mr Peter Eastwick:
Study Support Coordinator
Educational Services
PO Box 2503,  King's House
Grand Avenue
HOVE  BN3 2SU

**Patcham High School**
Ladies Mile Road
BRIGHTON  BN1 8PB
Headteacher:
Ms Elizabeth Fletcher
Study Support Coordinator:
Ms Stephanie Brotherstone

**Portslade Community College**
Village Centre
Windlesham Close
PORTSLADE  BN41 2LL
Headteacher: Mr Mike Tait
Youth Tutor and
Coordinator: Mr Peter Trenholme

**Varndean School**
Balfour Road
BRIGHTON  BN1 6NP
Headteacher:
Ms Pam Bowmaker
Community Projects
Manager: Ms Esther Harvey

**Cambridgeshire County Council**
Ms Jill Doak
NOF Development Worker
9 Bloomsfield
BURWELL
CB5 0RA

**Bottisham Village College**
Lode Road
Cambridge
BOTTISHAM  CB5 9DL
Headteacher: Mr C R Evett
Community Education
Manager: Mr Colin Thomas

**City of Ely Community College**
Downham Road
ELY  CB6 2SH
Headteacher: Dr Carol Stroud
Community Education
Manager: Mr David Mack

**Ernulf Community School**
Barford Road
Eynesbury
St Neots
HUNTINGDON  PE19 2SH
Headteacher: Mr Joe Pajak
Community Education
Manager: Mr Stefan Stevens

**Melbourn Village College**
The Moor
Melbourn
ROYSTON  SG8 6EF
Headteacher: Mr Ron Berry
Homestudy Club
Coordinator: Mr Phil Dawes

**Dearne Valley Partnership (Rotherham, Doncaster, Barnsley)**
Ms Linda Dye
Education Programme Manager
Meeting the Challenge of Success
Manvers House
PO Box 109,
Wath upon Dearne
ROTHERHAM
South Yorkshire
S63 6YZ

**Dearne High School**
Clayton Lane
Thurnscoe
ROTHERHAM  S63 0BE
Headteacher: Mr Paul Shenton
Study Support Coordinator:
Mr Dean Corrall

**Mexborough School**
Maple Road
MEXBOROUGH  S64 9SD
Headteacher:
Mrs Barbara Partridge
Study Support Coordinator:
Mr Phillip Watson

**Northcliffe School**
Gardens Lane
Conisbrough
DONCASTER  DN12 3JS
Headteacher: Mr David Martin
Study Support Coordinator:
Mrs Maggie Holdsworth

**Pope Pius  X  RC School**
Wath Wood Road
Wath-on-Dearne
ROTHERHAM  S63 7PQ
Headteacher:
Ms Anne Wynfield
Coordinator for in-school
Study Support: Ms Lynn Kelly
Study Centre Manager:
Ms Polly Goodman

**Swinton Comprehensive School**
East Avenue
Swinton
MEXBOROUGH  S64 3JS
Headteacher: Mr Dave Shevill
Coordinator:
Mr Dennis Lawson

**Wath Comprehensive School**
Sandygate
Wath-on-Dearne
ROTHERHAM  S63 7NW
Headteacher:
Mr Robert Godber
Study Support Coordinator:
Ms Pat Mitchell

**East Renfrewshire Council**
Mr David Jones
Head of Community
Resources
East Renfrewshire Council
Eastwood Park
GIFFNOCK  East
Renfrewshire
G46 6UG

**Barrhead High School**
Aurs Road
BARRHEAD  G78 2SJ
Headteacher :
Mr Kenneth Dykes
Study Support Coordinator:
Ms Sharon Bell

**LOG-IN Internet Café**
158 Main Street
BARRHEAD  G78 1SL
Librarian/Supported Study
Officer: Ms Linda Walker

**St Luke's High School**
Springfield Road
BARRHEAD  G78 2SG
Headteacher:
Mr John St. Patrick
Study Support Coordinator:
Mr John Cusack

**Isle of Wight County Council**
Mr David Pettit
Deputy Director of
Education
Education Offices

Isle of Wight County
Council
County Hall
NEWPORT,  Isle of Wight
PO30 1UD

**Cowes High School**
Crossfield Avenue
COWES  PO31 8HB
Isle of Wight
Headteacher:
Mr Chris Avery
Head of Maths and
Coordinator: Mrs Pat
Warner

**Ryde High School**
Pell Lane
RYDE  PO33 3LN
Isle of Wight
Headteacher:
Ms Linda McGowan
Study Support Coordinator:
Ms Jean Moore

**Ryde Youth Club**
97 High Street
RYDE  PO33 2SZ
Isle of Wight

**Sandown High School**
The Fairway
Lake
SANDOWN
PO36 9JH
Isle of Wight
Headteacher:
Mr John Bradshaw
Deputy Head:
Mr Keith Pritchard

**London Borough of Brent Council**
Dr Krutika Tanna
Senior Education Officer
Brent London Borough
Council
Chesterfield House
9 Park Lane
WEMBLEY, Middlesex
HA9 7RW

**Alperton Community School**
Stanley Avenue
WEMBLEY  HA0 4JE
Headteacher:
Mr Alexander Wills

**John Kelly Girls' Technology College**
Crest Road
LONDON  NW2 7SN
Headteacher: Mr K Heaps
LRC Manager:
Mr Tony Shepherd

**Kingsbury High School**
Princes Avenue
Kingsbury
LONDON  NW9 9JR
Headteacher:
Mr Phillip Snell
Open Learning Coordinator:
Dr D W Bateman

**Preston Manor High School**
Carlton Avenue East
WEMBLEY  Middx.
HA9 8NA
Headteacher:
Mrs Andrea Berkeley

**Queen's Park Community School**
Ayleston Avenue
LONDON  NW6 7AD
Headteacher:
Ms N A Norton

**Wembley High School**
East Lane
NORTH WEMBLEY
Middlesex  HA0 3NT
Headteacher:
Mr Michael Shew
Study Support Coordinator:
Mr Jerry Collins

**London Borough of Croydon**
Mr Hedley Shaw
Senior Advisor (Secondary)
Education Department
Croydon London
Borough Council
Taberner House,  Park Lane
CROYDON  CR9 1TP

**Addington High School**
Fairchildes Avenue
New Addington
CROYDON  CR9 0AA
Headteacher:
Ms Lorna Duggleby

**Archbishop Lanfranc School**
Mitcham Road
CROYDON  CR9 3 AS
Headteacher: Mr David
Clark
Senior Teacher: Mr Jim
Field

**Ashburton Community School**
Shirley Road
CROYDON  CR9 7AL
Headteacher:
Mr Richard Warne
Study Support Coordinator:
Ms Andrina Gibson

**Crystal Palace Study Support Centre**
c/o Crystal Palace Football Club
Selhurst Park
White Horse Lane
LONDON  SE25 6PU
Centre Manager:
Ms Christine Myant

**Norbury Library Study Support Centre**
Croydon Central Library
Croydon Clocktower
Katherine Street
CROYDON  CR9 1ET
Head of Children's Services:
Ms Margaret Fraser

**London Borough of Hammersmith and Fulham**
Ms Gill Sewell
Head of Service
Early Years, Play and Youth
Hammersmith and Fulham
London Borough Council
Education Centre
Cambridge House, 1st Floor
Cambridge Grove
LONDON W6 0LE

**Hurlingham & Chelsea School**
Peterborough Road
Fulham
LONDON  SW6 3ED
Headteacher:
Mr Michael Murphy
Study Support Coordinator:
Mr Tim Plumb

**Phoenix High School**
The Curve
Shepherd's Bush
LONDON  W12 7RQ
Headteacher:
Mr William Atkinson
Study Support Coordinator:
Miss Mary Lavery

**Queen's Park Rangers Study Support Centre**
The Bryony
61 Bryony Road
LONDON  W12 0SP
Study Support Programme Manager:
Mr Kevin W McCooke

**London Borough of Harrow**
Ms Roz Asher
Head of School Development Services
Education Department
Harrow London Borough Council
PO Box 22,  Civic Centre
Station Road
HARROW  Middx.
HA1 2UW

**Canons High School**
Shaldon Road
EDGWARE  HA8 6AN
Headteacher:
Mr Roger Annan
Director of OSHLA:
Mrs Jill Aitken

**Cedars Youth and Community Centre**
Chiceley Gardens
HARROW WEALD
HA3 6QH
Study Support Centre Manager:
Mr Matthew Sumners

**Harrow High School**
Gayton Road
HARROW  HA1 2JG
Headteacher:
Ms Christine Lenihan
Deputy Headteacher:
Mr Martin Abel

**Hatch End High School**
Headstone Lane
HARROW  HA3 6NR
Headteacher: Mr D A Jones

**Park High School**
Thistlecroft Gardens
STANMORE  HA7 1PL
Headteacher:
Mr Tony Barnes

**Rooks Heath High School**
Eastcote Lane
HARROW  HA2 9AE
Headteacher: Mr John Stanley
Deputy Headteacher and Study Support Coordinator:
Mr David Parker

**Sacred Heart High School**
186 High Street
Wealdstone
HARROW  HA3 7AY
Headteacher:
Mrs Mary Waplington

**Shaftesbury High School**
Headstone Lane
HARROW  HA3 6LE
Headteacher:
Mr Paul Williams
Deputy Head and Study Support Coordinator:
Ms Kerry Sternstein

**London Borough of Lewisham**
Ms Karen Swift
Manager of Lewisham EBP
Education and Community Services
Lewisham London Borough Council
Community Affairs
Laurence House
1 Catford Road
LONDON  SE6 4RU

**Downham Library Homework Club**
Moorside Road
Downham
BROMLEY  BR1 5EP
Homework Club Worker:
Ms Charmaine Ellis

**Lewisham Way Youth & Community Centre**
The Homework Club
138 Lewisham Way
New Cross
LONDON  SE14 6PD
Study Support  Coordinator:
Ms Donna Wilson

**Sedgehill School**
Sedgehill Road
Catford
LONDON  SE6 3QW
Headteacher:
Mrs Ilir Phillips

**London Borough of Newham**

**Langdon School**
Sussex Road
East Ham
LONDON  E6 2PS
Headteacher:
Ms Vanessa Wiseman
Head of Lower School:
Mr Vincent Doherty

**Richmond upon Thames London Borough Council**
Ms Gill Marshall-Andrews
Project Officer
Richmond-upon-Thames
London Borough Council
Education Department
Regal House
London Road
TWICKENHAM  TW1 3QB

**Christ's C of E School**
Queen's Road
Richmond
RICHMOND  TW10 6HW
Headteacher:
Mr Peter Jenkins

**Hampton Community College**
Hanworth Road
HAMPTON  TW12 3HB
Headteacher: Mrs A Wilson
Study Support Coordinator:
Mr Nick Holt

**Shene School**
Park Avenue
East Sheen
LONDON  SW14 8RG
Headteacher:
Mrs Judith Gavars
Study Support Coordinator:
Ms Jane Henson

**Waldegrave School**
Fifth Cross Road
TWICKENHAM  TW2 5LH
Headteacher:
Ms Heather Flint
Study Support Coordinator:
Ms Jilly Goddard

**Sefton Metropolitan Borough Council**
Ms Mari Cunliffe
Study Support Coordinator
Education Department
Sefton Metropolitan
Borough Council
The Redgate Centre
Redgate
FORMBY  L37 4EW

**Ainsdale High School**
Sandringham Road
Ainsdale
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**Greenbank High School**
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**Holy Family High School**
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LIVERPOOL  L23 4UD
Headteacher:
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**Manor High School**
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LIVERPOOL  L23 7UL
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**Sacred Heart High School**
Liverpool Road
CROSBY  L23 5TF
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Senior Teacher:
Mr Philip Harrison

**Savio High School**
Netherton Way
BOOTLE  L30 2NA
Headteacher:
Reverend Frank Mageean

**St George of England High School**
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BOOTLE  L20 6AQ
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# Appendix 2  The Sample and Methodology

## 2.1  The Sample

The following schools contributed to both senior and junior studies:

**Sheffield:** The Herries School, Yewlands School and Chaucer Secondary School

**Newham:** Sarah Bonnell School and Royal Docks Community School.


The following schools in **Birmingham** contributed only to the junior cohort:

Golden Hillock School, Moseley School, Queensbridge School, Yardleys School and Swanshurst School.


The remaining 45 schools listed in Appendix 1 contributed to the senior cohort study.

The student sample therefore consisted of the whole of the 1997 Yr.9 cohort (the senior cohort) in 45 schools and the whole of the 1997 Yr.7 cohort (the junior cohort) in 11 schools.


The turbulence within the inner city schools that formed the sample was higher than the research team had anticipated – reducing the overall sample numbers.  It is important to recognise therefore that, although the sample of schools and therefore of students is very strongly skewed towards the more disadvantaged, it will not contain that set of students who change schools during their secondary education.  In schools in this study, students who are mobile are likely to be the most disadvantaged; for example living with their family in bed and breakfast accommodation, or refugees, or in the care of the local authority.

There is also the loss of student level data, which is the inevitable consequence of a longitudinal study.  Simple arithmetic shows that if one gets an 80% return rate at each stage of data collection, collection of data at four points in time might well reduce the percentage of students on whom one holds a complete data set to about 40%. These two factors explain the variations in the sample sizes quoted in Appendix 3.

It is therefore likely that complete data sets are held on those students who are good at attending school and completing questionnaires. We have compared the characteristics of sub-populations on which there is a complete data set with the characteristics of the overall initial sample. There is a slight gender bias towards girls, a slightly lower level of FSM and generally better school attendance rates. However, the effect of this skew is likely to be an underestimate of the difference between those who participate in study support and those who do not.

## 2.2 The Baseline Measures

Baseline data was gathered using the following:

- a simple questionnaire for each school to obtain basic background data on gender, ethnicity, date of birth, number of siblings, and free school meal entitlement

- the Non-verbal Reasoning Inventory (NVR) published by NFER-Nelson, standardised for each of the cohorts

- the NFER Student Attitude Inventory "You and Your School" developed for the National Commission on Education (NFER 1993).

This last item is an extensive instrument of 69 questions covering students' attitudes to school, to school work, to rules and school discipline, to teachers, to activities outside lesson time, and to plans about the future. This baseline data was entered into a specially designed database that gave each student in every school a unique identification number.

## 2.3 A Taxonomy of Types of Study Support

Three other sources of data were needed – each student's school attendance, each student's participation/non-participation in study support, and the types of study support provided. These last two presented particular problems.

The initial plans were to use the records of participation in study support kept by the schools. However, the patterns of record keeping proved both variable and inconsistent. We therefore decided to administer a "Learning out of lesson-time " (LOOLT) questionnaire asking students to record retrospectively what they had attended. This was done twice for each cohort, providing data on participation in study support in Yrs.8 and 9, for the junior cohort, and Yrs.10 and 11 for the senior

cohort. Students were asked to state whether they attended each of the study support activities available to them "never", "occasionally" or "regularly".

It was important that students should recognise the terminology used since terms such as "study support", much less "drop-in sessions with a meta-cognitive component" would not have been familiar to them. Students recognise names such as "Café Ask," "The Mind Boggling Club" or "Computers in the LRC on Tuesdays". Each school was therefore telephoned by one of the SSNEDP staff team or their Critical Friend to obtain a complete list of all the out-of-school-hours activities, the purposes, methods and locations of the activities, and the name by which the students knew the activity. This approach had the added benefit of prompting the contact person in each school to consider including the full range of out-of-school-hours activities covered by the definition in *"Extending Opportunity"*. Each school therefore received its own customised version of the LOOLT questionnaire for each student to complete, with the unique student identification number on each questionnaire.

The research team then had to reduce these hundreds of different descriptions of activities to a set of variables not only small enough to be manageable but also large enough to reflect the diversity of provision. Initially a matrix of factors was used:

- time when the activity took place: for instance before school or at the weekend
- duration of the activity: for instance a week or less or more than a term
- the focus of the activity: from curriculum support to personal and social education
- the pedagogy: from teacher directed to student directed
- the location of the activity: from "entirely on school premises" to "entirely off school premises".

As the research team became more familiar with what the schools were doing and the features of good practice that were emerging from the work of the Critical Friends, it became clear that some of the factors in this matrix were so context dependent that it was unlikely that they would have any explanatory power. For example, the time when activities are offered is highly dependent on how the majority of students travel to school, parental beliefs about their children's safety and the availability of staff. The location of activities on or off school premises is dependent on the resources available in the school or elsewhere as much as on the beliefs of staff about students' responsiveness. Increasingly the research team came to an understanding that almost

any type of out-of-school learning activity, at any time or in any place could attract students depending on how it was presented

Hence the final taxonomy used for the analysis was derived from the insights gained from the developmental aspects of the Programme and consisted of:

(a) The most common forms of provision
(b) Activities which prima facie might show up an effect on the outcome measures
(c) innovative provision for which the claims were being made.

Thus under (a) were included Drop-in sessions in libraries and learning resource centres, sports, and aesthetic activities such as music drama and art clubs. Under (b) were included curriculum extension and revision classes with specific categories for Mathematics, English and Science and for all other subjects of the curriculum clustered as one category. Under (c) were included study skills, meta-cognitive activities and accelerated learning, peer education, and mentoring.

Finally a catch-all category of "Other" was created to cover the wide range of hobby clubs such as chess or rocketry, and community and service activities such as Changemakers or the Duke of Edinburgh's Award Scheme.

## 2.4 Output Measures

The attitudinal output was measured by a re-administration of the NFER Attitude Inventory '*You and Your school*'.

The attendance data was collected from the schools as a single percentage figure for each student. Authorised absence was treated as absence.

Attainment was measured for the junior cohort using SATs scores in English, Maths, and Science. For the senior cohort GCSE results used were for English, Maths, and Science, the number of passes at A-C grade, and Best 5 score.

The measures of attainment are narrow and do not cover the personal and social skills and qualities that the schools in the sample were striving to develop in their students. They are however, standard and robust measures of academic achievement and are those used across the education system to compare the attainment of individual

students and the value added by schools. The use of SATs and GCSEs as attainment output measures did not require schools to undertake additional work in the administration of further tests. Insights into the wider benefits of participation in study support were sought in the qualitative research.

## 2.5  Identifying the Value Added by Study Support

### 2.5.1  Multiple regression analysis

The most appropriate methodology for dealing with quantitative data of this kind is multiple regression analysis; identifying how much variation in outputs is explained by each variable. This means progressively testing hypotheses by adding and subtracting variables. Adding in "gender " may add to the explanation. "Free school meal entitlement" may help to explain differences in attainment or attitude but then may add very little when prior attainment is taken into account. Once the effect of the input variables had been identified the school effect was identified. Three decades of studies show the school effect to be in the region of 7% to 15% (that is the difference between more and less effective school). This apparently small effect is deemed to be highly significant because it equates to between one and two better GCSE grades and therefore does 'make a difference'. We found such similar school effects as well as the study support effect which we report on in Chapter 3.

The limitations of multiple regression analysis are widely acknowledged. (White, 1998, Elliot, Thrupp, 1999, Weiner, 2000). Multiple regression analysis provides not explanations but correlations. It does not say anything about cause and effect. It cannot promise that if action A is taken it will lead to consequence B. It rests on a statistical model which, in order to play the numbers, has to quantify achievement, attendance, attitude, and social background among other things. All of these have a qualitative dimension, which requires further exploration and explanation. Confidence in the correlations identified by multiple regression analysis as representing underlying causal relationships is increased if the correlations are similar for randomly chosen subsets of the sample. In this study repeated analyses of the data with different sub-sets of the sample have shown such similar levels of correlation.

## 2.5.2 Testing hypotheses

The first and overarching hypothesis was that study support makes a difference to attainment, attitudes and school attendance. To turn that into specific and testable hypotheses required statements that looked more like the following:

- Given comparable baseline measures, and allowing for the school effect, students who participate in study support will on average do better than would have been predicted than students who do not
- Students who attend more than one type of study support will show greater value added on both attitude and attainment than students who only attend one type.

But within each of these simple searches for correlations there are further possible forms of dissaggregation, for example:

- by individual subject e.g. English GCSE
- by type of study support e.g. Drop-in clubs
- by gender or by ethnic group.

Or by any combination of factors:

- by gender and single GCSE subject e.g. girls' Maths attainment
- by type of study support and single GCSE subject e.g. participation at English study support vis-à-vis attainment in GCSE English.

We have reported in Chapter 3 and Appendix 3 on the statistically significant correlations we have found. Further analysis is possible of what is a very extensive data set.

# Appendix 3  Analysis of Data

## Appendix 3.1  Participation Rates

The learning out of lesson time (LOOLT) Questionnaire listed only the name by which the students knew the activity.  Therefore each of the study support activities listed by each school was allocated into the one of the categories of the taxonomy by two separate coders.  Where necessary a follow-up phone call was made to the school to get more information to enable the activity to be appropriately coded.

We recorded each student's participation or non-participation in each of the categories of study support by scoring as positive the responses "Very often or regularly" and "From time to time" and as negative the response "Never or hardly ever".  The tables below give the participation rates for the top and bottom quartile of the senior cohort and for the entire junior cohort.

*Table 3.1.1  Participation rates by category for the top and bottom quartiles of senior cohort schools*

| School ID | Maths | English | Science | Subjects | Any Subjects | Study Skills | Sport | Aesthetic | Other | Peer Ed | Drop-in | Mentoring | Any Yr.11 Activity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **30** | 40% | 32% | 28% | 75% | 81% | 0% | 47% | 17% | 75% | 0% | 95% | 15% | 98% |
| **52** | 66% | 35% | 56% | 82% | 93% | 0% | 42% | 35% | 7% | 0% | 94% | 0% | 97% |
| **4** | 76% | 49% | 66% | 68% | 98% | 0% | 29% | 11% | 0% | 0% | 94% | 58% | 100% |
| **51** | 62% | 0% | 0% | 91% | 92% | 53% | 72% | 22% | 51% | 0% | 93% | 23% | 99% |
| **29** | 61% | 66% | 78% | 94% | 97% | 0% | 23% | 8% | 27% | 0% | 92% | 0% | 100% |
| **31** | 29% | 13% | 38% | 61% | 73% | 0% | 50% | 29% | 30% | 0% | 91% | 55% | 95% |
| **20** | 0% | 1% | 0% | 94% | 94% | 35% | 42% | 26% | 21% | 36% | 90% | 71% | 100% |
| **40** | 60% | 32% | 62% | 89% | 95% | 0% | 40% | 20% | 46% | 6% | 89% | 0% | 100% |
| **25** | 33% | 37% | 31% | 76% | 79% | 0% | 66% | 12% | 16% | 0% | 89% | 19% | 97% |
| **42** | 79% | 66% | 83% | 98% | 99% | 0% | 52% | 32% | 23% | 0% | 88% | 0% | 99% |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **53** | 80% | 82% | 73% | 57% | 88% | 0% | 15% | 27% | 15% | 13% | 26% | 0% | 90% |
| **11** | 21% | 24% | 38% | 54% | 67% | 0% | 45% | 11% | 3% | 0% | 26% | 2% | 82% |
| **44** | 0% | 0% | 0% | 79% | 79% | 0% | 51% | 15% | 0% | 0% | 20% | 0% | 92% |
| **9** | 23% | 4% | 35% | 69% | 76% | 0% | 44% | 6% | 26% | 0% | 14% | 3% | 86% |
| **49** | 19% | 58% | 59% | 83% | 87% | 0% | 44% | 29% | 0% | 0% | 0% | 69% | 91% |
| **48** | 21% | 19% | 18% | 30% | 35% | 0% | 59% | 10% | 13% | 0% | 0% | 0% | 72% |
| **35** | 50% | 48% | 50% | 90% | 90% | 0% | 0% | 0% | 44% | 0% | 0% | 0% | 90% |
| **15** | 56% | 39% | 59% | 29% | 78% | 0% | 40% | 46% | 0% | 0% | 0% | 8% | 90% |
| **5** | 69% | 38% | 56% | 98% | 99% | 0% | 78% | 62% | 77% | 12% | 0% | 20% | 99% |
| **1** | 47% | 22% | 29% | 58% | 65% | 39% | 10% | 19% | 29% | 0% | 0% | 0% | 74% |

*Table 3.1.2 Participation rates in study support sorted by % attendance at Drop-in junior cohort*

| School ID | Yr.9 Participation rates | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Maths | English | Science | Subjects | Study Skills | Sport | Aesthetic | Other | Peer Ed | Drop-in | Mentoring |
| **14** | 0% | 0% | 16% | 12% | 61% | 83% | 58% | 59% | 10% | 98% | 0% |
| **42** | 31% | 0% | 0% | 72% | 0% | 40% | 36% | 60% | 7% | 85% | 0% |
| **32** | 48% | 48% | 46% | 15% | 27% | 46% | 0% | 0% | 0% | 80% | 0% |
| **30** | 8% | 2% | 0% | 0% | 17% | 54% | 26% | 14% | 13% | 75% | 0% |
| **31** | 4% | 6% | 4% | 55% | 25% | 54% | 25% | 23% | 0% | 72% | 0% |
| **45** | 53% | 0% | 0% | 38% | 0% | 46% | 38% | 0% | 0% | 68% | 0% |
| **27** | 20% | 21% | 9% | 35% | 16% | 65% | 38% | 35% | 10% | 62% | 0% |
| **24** | 11% | 0% | 0% | 0% | 22% | 52% | 41% | 0% | 0% | 43% | 0% |
| **23** | 0% | 7% | 0% | 10% | 0% | 54% | 22% | 35% | 6% | 41% | 0% |
| **28** | 0% | 0% | 19% | 65% | 0% | 44% | 42% | 53% | 0% | 28% | 27% |
| **13** | 0% | 17% | 0% | 35% | 14% | 79% | 34% | 22% | 0% | 0% | 0% |

| School ID | Yr.9 Participation rates | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Maths | English | Science | Subjects | Study Skills | Sport | Aesthetic | Other | Peer Ed | Drop-in | Mentoring |
| **32** | 0% | 11% | 0% | 22% | 18% | 64% | 0% | 0% | 0% | 96% | 0% |
| **42** | 16% | 36% | 4% | 22% | 0% | 45% | 58% | 71% | 0% | 94% | 0% |
| **13** | 0% | 24% | 0% | 0% | 14% | 81% | 51% | 54% | 0% | 92% | 0% |
| **31** | 0% | 11% | 0% | 73% | 0% | 56% | 10% | 79% | 0% | 82% | 0% |
| **45** | 29% | 0% | 0% | 0% | 0% | 88% | 27% | 0% | 0% | 78% | 0% |
| **30** | 14% | 0% | 0% | 8% | 31% | 57% | 0% | 0% | 0% | 77% | 0% |
| **14** | 0% | 0% | 0% | 22% | 0% | 64% | 22% | 54% | 0% | 74% | 0% |
| **23** | 0% | 0% | 0% | 13% | 6% | 42% | 23% | 15% | 0% | 53% | 0% |
| **24** | 13% | 0% | 0% | 0% | 47% | 44% | 19% | 81% | 0% | 0% | 0% |
| **27** | 0% | 33% | 0% | 17% | 47% | 70% | 26% | 61% | 0% | 0% | 32% |
| **28** | 0% | 10% | 19% | 65% | 17% | 48% | 66% | 47% | 0% | 94% | 73% |

## Appendix 3.2  Academic Attainment

We knew that GCSE results would be correlated with prior measures of student attainment and (probably) with gender. The central question therefore is:

**Does participation in study support in Yrs.10 and 11 predict good GCSE performance to an extent over and above what one might predict from knowledge of Yr.9 student baseline characteristics, notably Yr.9 SATS scores?**

Using models explained below we examined these various effects on:

- Best 5 GCSE results
- The number of GCSE passes at A-C grades
- GCSE English language
- GCSE Mathematics.

We were able to examine these effects on a population of approximately 2500 students spread across 38 schools.  This number of schools is smaller than the overall senior cohort sample of 45 because:

- the students at the two Scottish schools sit Standard Grade examinations which are not readily comparable with GCSEs
- five of the English schools proved to have returned baseline data of SATs results on very incomplete year groups, which made comparisons impossible.

### 3.2.1  The multiple regression analysis
Given that Yr.9 SATS scores in English, Maths and Science were individually powerful predictors of GCSE performance (with gender showing some effects), it seemed appropriate to create multiple regression models of GCSE performance with these variables entered.  Model 1 in Table 3.2.1 below has only SATS entered, Model 2 adding in gender and then Model 3 adding in the effect of schools.  We have done this by entering dummy variables for each school to separate out some of the effects of inter-school differences.  **We can then see whether any forms of study support have additional and independent effects on GCSE performance** in this modelling through Model 4 which has study support variables entered.

For the all-schools Table 3.2.1, the table reports the predictive power of each of the models (in terms of adjusted $R^2$ values).

*Table 3.2.1 GCSE multiple regression models*

|  | Best 5 | No. A-C | GCSE English Language | GCSE Mathematics |
|---|---|---|---|---|
| Model 1 SATs: $R^2$ | **57.2 %** | **57.1 %** | **56.6 %** | **65.1 %** |
| Model 2; SATs plus GENDER $R^2$ | **59.1 %** | **59.5 %** | **58.0 %** | **65.2 %** |
| $R^2$ change i.e. GENDER effect | *1.9% \*\** | *2.4 %\*\** | *1.4 %\*\** | *0.1 %$^{ns}$* |
| Model 3; SATs plus GENDER plus SCHOOL $R^2$ | **68.9 %** | **62.4 %** | **63.1 %** | **70.4 %** |
| $R^2$ change i.e. SCHOOL effect) | 9.8 %\*\* | 2.9 %\*\* | 5.1 %\*\* | *5.2 %\*\** |
| Model 4; SATs plus GENDER plus SCHOOL plus STUDY SUPPORT $R^2$ | **70.5 %** | **63.6 %** | **64.3 %** | **71.2 %** |
| $R^2$ change i.e. STUDY SUPPORT effect | *1.6 %\*\** | *1.2 %\*\** | *1.2 %\*\** | *0.8 %\*\** |
|  | **n=2461** | **n=2532** | **n=2577** | **n=2656** |

(\*\*=significance p=<0.001, \*=significance p<0.05)
(Note: If Study support is entered in the model BEFORE the school dummy variables, the $R^2$ percentage uniquely attributable to study support goes up to 2.1 % (in the case of Best 5) and 1.7 % (in the case of No A-C). This indicates about 0.5 % of an effect which is JOINTLY associated with study support and with the systematic ordering of schools in relative effectiveness.)

We have calculated the effect of study support on GCSE results by examining the relationship between a change in the GCSE variable and a unit of change in the study support variable (The B co-efficient). We have measured the GCSE variable as a grade point score and the study support variable in terms of a simple 'does participate/does not participate' dichotomy. By defining, for ease of coding and analysis, study support in simple terms of 'does/does not' participate we are unable to measure whether or not frequency of attendance makes a difference say between a student who goes to Drop-in three time a week as against one who goes only three times a term. However, the data does distinguish between the effects of different categories of study support and demonstrates clearly that the effect is cumulative. The more categories of study support you attend the bigger the impact. It is a reasonable inference that this cumulative effect also applies to specific types of study support.

## 3.2.2 Categories of study support and their impact on attainment.

Each of the 11 categories of study support in each of Yrs.10 and 11 was treated as a separate variable. The significant correlations found are shown in the tables below.

*Table 3.2.2  B coefficients and Significance levels of categories of study support which impact on Best 5 GCSE scores*

| Study Support Variable | B coefficients | |
|---|---|---|
| | Model 3 | Model 4 |
| **Yr.10 Subject-focussed** | 1.4 ** | 1.0** |
| (Yr.10 Sport) | 0.5* | ns |
| **Yr.10 Aesthetic** | 0.5 * | 0.5* |
| **Yr.11 Subject-focussed** | 0.8 ** | 1.3** |
| (Yr.11 Other) | 0.8** | ns |
| (Yr.10 Drop-in ) | ns | 0.7 ** |
| **Easter school** | 0.7** | 1.3** |
| | | |
| **Total** | **4.7** | **4.8** |

(**=significance p=<0.001, *=significance p<0.05)

The study support variables in bold type appear significant regardless of whether the school dummies are in the regression model (Model 4) or not (Model 3) (although their size fluctuates somewhat).  This indicates they are **not** particularly systematically dependent on school.  The study support variables in parenthesis vary in their size and significance depending on whether or not school dummy variables are in the model; this indicates a prima facie case for the idea that their effectiveness is somehow systematically interacting with the school variables.

In the model with the school variables entered (Model 4), the significant B values total an estimated 4.8, giving us the estimate of their effect on GCSE Best 5 grades. (The associated standard error terms in these estimates total about 1.1, so even a very conservative estimate of the effect of study support on the total Best 5 grades would be to say that the associated improvement is worth a minimum of 3.5 grades).

*Table 3.2.3  B coefficients and significance levels for categories of study support which impact on GCSE Passes A-C*

| Study Support Variable | B coefficients | |
|---|---|---|
| | Model 3 | Model 4 |
| **Yr.10 subject support** | 0.4** | 0.5** |
| (Yr.11 other) | 0.5** | ns |
| (Yr.10 Drop-in) | ns | 0.2* |
| (Yr.11 Subject-focussed) | ns | 0.3* |
| **Easter school** | 0.5** | 0.6** |
| | | |
| **Total** | **1.4** | **1.6** |

(**=significance p=<0.001, *=significance p<0.05)

In the model with the school variables entered (Model 4), the significant B values total an estimated 1.6, giving our estimate of the number of A-C passes they are

worth. (The associated standard error terms in these estimates total about 0.4, so even a very conservative estimate of the effect of study support on the number of A-C GCSE passes would be to say that the associated improvement is worth a minimum of one good GCSE).

*Table 3.2.4  B coefficients and significance levels for those categories of study support which impact on English GCSE*

| Study Support Variable | B coefficients | |
|---|---|---|
| | Model 3 | Model 4 |
| (Yr.10 Sport) | 0.1** | ns |
| (Yr.11 other) | 0.1** | ns |
| (Yr.11 peer education) | 0.1 ** | ns |
| (Yr.11 subject support) | ns | **0.2*** |
| **Easter school** | **0.2*** | **0.3*** |
| **Total** | **0.5** | **0.5** |

(**=significance p=<0.001, *=significance p<0.05)

In the model with the school variables entered (Model 4), the significant B values total about 0.5 (within a confidence limit of about 0.4 to 0.6), giving the estimate of the cumulative study support effect on English GCSE of about one-half of a grade).

*Table 3.2.5  B coefficients and significance levels for those categories of study support which impact on Maths GCSE*

| Study Support Variable | B coefficients | |
|---|---|---|
| | Model 3 | Model 4 |
| **Yr.10 Subject focussed** | 0.2** | 0.1** |
| (Yr.10 Sport) | 0.1* | ns |
| (Yr.11 Subject-focussed) | ns | 0.2** |
| (Easter school) | ns | 0.2** |
| | | |
| **Total** | **0.3** | **0.5** |

(**=significance p=<0.001, *=significance p<0.05)

In the model with the school variables entered, the significant B values total about 0.5 (within a confidence limit of about 0.35 to 0.65), giving the estimate of the cumulative study support effect on Maths grade of about one-half of a grade.

### 3.2.3  Summary of the categories of study support which impact on GCSE results.

Table 3.2.6 brings together our findings on the various forms of study support which impact on GCSE results.

*Table 3.2.6  Summary of categories of study support which impact on GCSE results*

| Best 5 | Passes A-C | English GCSE | Maths GCSE |
|---|---|---|---|
| **Yr.10 Subject\*\*** | **Yr.10 Subject\*\*** | | **Yr.10 Subject\*\*** |
| **Yr.10 Aesthetic\*** | | | |
| (Yr.10 Sport\*) | | (Yr.10 Sport\*\*) | (Yr.10 Sport)\*\* |
| (Yr.10 Drop-in \*\*) | (Yr.10 Drop-in \*) | (Yr.11 Peer education\*) | |
| (Yr.11 other) \*\* | (Yr.11 other) \*\* | (Yr.11 other)\*\* | |
| (Yr.11 Sport\*) | | | |
| **Yr.11 Subject\*\*** | (Yr.11 Subject)\* | (Yr.11 subject)\*\* | (Yr.11 Subject)\* |
| **Yr.11 Easter school\*\*** | **Yr.11 Easter school\*\*** | **Yr.11 Easter school\*\*** | (Yr.11 Easter school)\*\* |

(\*\*=significance p=<0.001, \*=significance p<0.05)

In summary,

- The cumulative effects of the forms of study support which impact on Best 5 are such that students who participate in all of these might on average score perhaps a total of 4.8 grades more than students of equal ability who do not participate in study support ( with a minimum likely estimate of 3.5).

- The cumulative effects of the forms of study support which impact on A-C passes are such that students who participate in all might get about 1.5 more A-C passes on average than students of equal ability who do not participate in study support (with a minimum likely estimate of 1).

- Study support participation can improve attainment in Maths and English GCSE by perhaps half a grade.

### 3.2.4  The effects of particular schools on GCSE attainment

While most of the categories are effective across schools generally, there are complex factors related to those in parentheses in Table 3.2.6 which suggest that their effects may be concentrated in some particular schools.  We have found that the **general** positive effects of study support apply across schools.  The question of **which** forms are effective seems more dependent on which groups of schools we look at.

Some schools produce significantly better GCSE results (judged by the Best 5 scores and the number of A-C grade passes), even when one controls for differences in intake abilities.

### 3.2.5  The Junior Cohort:  The effect of study support on KS3 SATs

We had valid data on NVR baseline scores and KS3 SATs results for 450 students from six schools.  This sample is much smaller than the senior cohort and the findings need to be approached with more caution.

The amount of variance in KS3 SATs that we can explain separately from NVR, gender and free school meal entitlement is shown below:

*Table 3.2.7  Explanation of variance in SATs results explained by background variables*

|  | **English** | **Maths** | **Science** |
|---|---|---|---|
| **NVR score** | 16 % | 44 % | 36 % |
| **Gender** | 1.7 % (favouring girls) | zero | zero |
| **Free school meal** | 1 % | 1.7 % | 2 % |

If we measure their **joint** rather than separate predictions, we get the following picture:

*Table 3.2.8  Explanation of variance in SATs results explained by background variables*

|  | **English** | **Maths** | **Science** |
|---|---|---|---|
| JOINT PREDICTION, coming uniquely from:- | **20 %** | **48 %** | **38 %** |
| **NVR score** | 18.5 % | 46 % | 36 % |
| **Gender** | 1.2 % | <1% | zero |
| **Free school meals** | zero | <1 % | 1 % |

For these reasons, we subsequently used only the NVR score as our baseline measure against which we examined subsequent progress.

The above tables show that:

- NVR scores give a reasonable baseline measure of SATs performance two years later
- Girls do quite significantly and measurably better than one might have predicted in English SATs; and significantly worse (but by a small margin) in Maths; there are no significant gender differences in Science SATs scores
- Entitlement to free school meals has a small negative effect, which only borders on statistical significance.

Given that Yr.7 NVR score was a reasonable predictor of Yr.9 SATs performance, it seemed appropriate to create multiple regression models of SATs performance with only NVR entered.  Model 1 in Table 3.2.9 has only NVR entered, then Model 2 adding schools into this modelling (i.e. entering dummy variables for each school to separate out some of the effects of inter-school differences).  Model 3 adds in the

effect of study support to **see whether any forms of study support have additional and independent effects on SATs performance**.

For the all-schools Table 3.2.9 the table reports the predictive power of the models (in terms of adjusted $R^2$ values).

*Table 3.2.9  SATs Multiple Regression Models*

|  | English SATs | Maths SATs | Science SATs |
|---|---|---|---|
| Model 1 : $R^2$ | **26.6%** | **52.3 %** | **44.3 %** |
| Model 2; $R^2$ | **24.8 %** | **49.9%** | **39.6 %** |
| **$R^2$ change (1-2)** | **1.8%** | **2.4 %** | **4.8 %** |
| **Significance of school attended** | ** | ns | ns |
| Model 3; $R^2$ | **18.6%** | **49.3%** | **38.1%** |
| $R^2$ change (2-3) | **6.4%** | **0.6%** | **1.5 %** |
| **Significance of study support** | ns | * | ** |
|  | **n=433** | **n=463** | **n=445** |

(**=significance p=<0.001, *=significance p<0.05)

We were able to identify the forms of study support which impact on SATs results.

*Table 3.2.10  Categories of study support which affect KS3 SATs*

| **English SATs** | **Maths SATs** | **Science SATs** |
|---|---|---|
| Yr.9 all Subject–focussed (ns) | Yr.9 all Subject-focussed** | Yr.9 all Subject-focussed ** |
|  |  | Yr.8 study skills * |

The effect of Yr.9 Subject-focussed on English SATs scores is small, and uncertain in magnitude.

The effect of Yr.9 Subject-focussed on Maths SATs scores are such that students who participate in it might on average score perhaps one third of a level higher than students of equal ability who do not participate in it.

The effect of Yr.9 Subject-focussed study support and Yr.8 Study skills on science SATs scores are such that students who participate in them might on average score perhaps three quarters of a level higher than students of equal ability who do not participate in it.

# Appendix 3.3  Influence of Ethnicity on Attainment

Students were given the opportunity to self identify their ethnicity according to the Commission for Racial Equality standard set of definitions.

For the simple dichotomous analysis "White"/"Black and Asian" we included in the former category those who self identified as White British, White European and White Other and in the latter category all other valid self-identifications.

For the analysis of the three sub-populations the "White" had the same definition as above.  The "Pakistani/Bangladeshi/Indian" and the African/African-Caribbean" contained only those specifically so identifying.  The numbers in this analysis are therefore smaller and exclude those identifying as Chinese, or any other Asian ethnic group, and those identifying as mixed race.

### 3.3.1  Ethnicity as a background variable in GCSE performance

Table 3.3.1 shows the variance in GCSE performance explained by SATs scores and then by ethnicity.

*Table 3.3.1  Ethnicity factor and the explanation of variance in GCSE results*

| Amount of variance predicted by | Best 5 score | Passes A-C |
|---|---|---|
| **SATS scores** | **57.4 %** | **57.2 %** |
| **SATS scores plus ethnicity** | **59.3 %** | **58.8 %** |
| | | |
| **Added by ethnicity** | *1.9 % \*\** | *1.6 % \*\** |
| **B coefficient for ethnicity** | 2.2 | .89 |
| | n=2436 | n=2508 |

(\*\*=significance p=<0.001, \*=significance p<0.05)

Being "Black or Asian" seems to be worth about two GCSE grades overall and nearly one good GCSE pass (the B coefficient being the best estimate of such an advantage).

Table 3.3.2 summarises our findings on the differences in participation rates for the categories of study support which impact on GCSE results.

*Table 3.3.2  Mean GCSE results and participation rates in categories of provision, by ethnicity*

|  | White Population | Black and Asian population |
|---|---|---|
| **Mean Best 5 grade score** | 24.4 | 25.3 |
| **Mean no.  A-C GCSE passes** | 4.1 | 4.4 |
| **% attendance at Yr.10 Subject-related SS** | 46 % | 63 % |
| **Yr.10 Sport** | 43 % | 37 % |
| **Yr.11 Subject-focussed  study support** | 83 % | 90 % |
| **Yr.11 Sport** | 42 % | 46 % |
| **Easter school** | 27 % | 32 % |
|  | n=1610 | n=825 |

The table shows that Black and Asian students participate in all forms of study support more than White students, with the exception of Sport.  This reversal of the trend may be due to the composition of the sample.  We have found that boys participate in Sport much more than girls do.  However, the school sample contained only one boys' school and three girls' schools.  All the girls' schools have very high proportions of students from minority ethnic groups on roll.  We therefore infer that the lower participation rate for Sport is a sampling anomaly.

### 3.3.2  The impact of study support on students from minority ethnic groups

When we analysed the effects of study support on the White and on the Black and Asian students we found that study support has over twice as much effect for students from minority ethnic groups, measured both on Best 5 and A-C scores at GCSE.  As with the whole sample analysis the study support effect is larger when measured on Best 5, Table 3.3.3, than on A-C scores, Table 3.3.5.  Associated with these respectively are Tables 3.3.4 and 3.3.6 where the B coefficients give an estimate of the grade or pass value of each form of study support listed.

*Table 3.3.3  Regressions on Best 5 scores for dichotomously split ethnic populations*

|  | White Population | Black and Asian population |
|---|---|---|
| **% variance explained by SATs** | **62.3 %** | **53.3 %** |
| **SATs plus gender** | **63.3 %** | **56.7 %** |
|  |  |  |
| **EFFECT OF gender** | *1.0 %* | *3.4 %* |
| **% variance explained by SATs, gender and study support** | **64.7 %** | **60.1 %** |
|  |  |  |
| **EFFECT of study support** | *1.4 %* | *3.4 %* |
|  | n=1610 | n=825 |

*Table 3.3.4  B coefficients in Best 5 regression model*

|  | White Population | Black and Asian Population |
|---|---|---|
| **Yr.10 Subject-focussed** | 0.8 ** | 1.6 ** |
| **Yr.10 Sport** | 0.4 ** | ns |
| **Yr.10 Aesthetic** | 0.6 ** | ns |
| **Yr.10 Drop-in** | 0.5 * | 1.0 * |
| **Yr.11 Subject-focussed** | 1.1 ** | 1.5* |
| **Easter school** | 1.2 ** | 1.3** |
| **TOTAL** | **4.6** | **5.4** |
|  | n=1610 | n=825 |

(**=significance p=<0.001, *=significance p<0.05)

Table 3.3.3 shows that study support is of much more advantage to Black and
Asian students.  Table 3.3.4 suggests that the differential effect operates through
Yr.10 Subject-focussed and Yr.10 Drop-in provision.

*Table3.3.5 Regressions on A-C scores*

|  | White Population | Black and Asian  Population |
|---|---|---|
| **% variance explained by SATs** | **61.3 %** | **54.2 %** |
| **SATs plus gender** | **62.7 %** | **58.3 %** |
|  |  |  |
| **EFFECT OF gender** | *1.4 %* | *4.1 %* |
| **% variance explained by SATs, gender and SS** | **63.8 %** | **61.0 %** |
|  |  |  |
| **EFFECT of study support** | *1.1 %* | *2.7 %* |
|  | n=1638 | n=870 |

*Table 3.3.6  B  coefficients in A-C regression model*

|  | White Population | Black and Asian  Population |
|---|---|---|
| **Yr.10 Subject focussed** | 0.4** | 0.7** |
| **Yr.10 Drop-in** | ns | 0.4 * |
| **Yr.11 Other** | 0.4 * | 0.4* |
| **Easter school** | 0.6 ** | 0.6** |
| **Total** | **1.4** | **2.1** |
|  | n=1638 | n= 870 |

(**=significance p=<0.001, *=significance p<0.05)

Table 3.3.5 shows a much greater effect for students from minority ethnic groups.
Table 3.3.6 suggests the differential effect again operates through Yr.10 Subject-
focussed and Yr.10 Drop-in provision.

### 3.3.3  Three ethnic sub-populations

We did a further analysis of three sub-populations as defined at the start of this
section.  Table 3.3.7 shows for each, their mean performance in terms of a Best 5
GCSE performance and in terms of number of A-C GCSE passes as a B value, whose
size, direction and significance measure the extent to which the sub-population score

differs from the overall population score.  There are no statistically significant findings for the African/African-Caribbean students.  The White group as measured by A-C passes does worse than the mean for the whole sample.  The Pakistani/Bangladeshi/Indian group does better than the whole sample on both measures of GCSE performance, outperforming the White group by about three grades in terms of Best 5 score and about one pass in the case of A-C passes.

*Table 3.3.7  B values for three sub populations*

| Ethnic group | Best 5 | No A-C passes |
|---|---|---|
| African/Afro Caribbean | +0.6 ns | +0.1 ns |
| White | -0.3  ns | -0.4 ** |
| Pakistani/Bangladeshi/Indian | +2.6 ** | +0.6 ** |

(**=significance p=<0.001, *=significance p<0.05)

However, there are considerable interactions between ethnicity and gender with Asian girls performing significantly better across all measures than the other groups.

We created six dummy variables representing the interaction between gender and ethnicity.  For five measures of GCSE performance we regressed the GCSE outcome, firstly, on Yr.9 SATs and then, secondly, on SATs plus the six dummy variables.  Table 3.3.8 shows that in all cases, the dummy variables added significantly to the power of the model; and the size, direction and significance of the B values in the regression equation show the extent to which each sub-group was performing differently from the mean performance in the whole population.  (The B coefficient in all cases analysed here operates such that a unit change in the B coefficient represents a unit change in the dependent variable (i.e. one grade on Best 5, or one A-C pass, or one grade at GCSE English etc.).

White boys are performing significantly below the mean for the whole sample, achieving five fewer grade points than the Pakistani/Indian/Bangladeshi girls in Best 5, two fewer A-C passes, half a grade a grade less in English language GCSE, over half a  grade less in Maths GCSE and almost a full grade less in science GCSE.

*Table 3.3.8  B coefficients for ethnic sub groups on 5 measures of GCSE performance*

|  | **Best 5 grades** | **No. of A-C passes** | **English language GCSE** | **Maths GCSE** | **Science GCSE** |
|---|---|---|---|---|---|
| % variance added by dummies | 4.1 % | 3.8 % | 1.5 % | 2.0 % | 3.2 % |
|  | n=3120 | n=3213 | n=3253 | n=3340 | n=3134 |
| <u>Ethnic/gender group</u> |  |  |  |  |  |
| **P/B/I girls** | +4.0** | +1.2 ** | +0.2** | +0.6 ** | +0.7** |
| **A/A-C girls** | +1.0 ns | +0.2 ns | +0.1 ns | 0 ns | +0.3 ** |
| **W girls** | +0.4 ns | -0.2 ns | 0.0 ns | -0.1 ns | 0.0 ns |
| **P/B/I boys** | +1.0 * | -0.4 * | -0.2* | +0.4 ** | +0.3 ** |
| **A/A-C boys** | -0.9 ns | -0.7 * | -0.2 ns | +0.2 ns | 0.0 ns |
| **W boys** | -1.1 ** | -1.0** | -0.3 ** | -0.1 ns | -0.1* |

(**=significance p=<0.001, *=significance p<0.05)

## Appendix 3.4  The Impact of Study Support on the Attainment of Disadvantaged Students

### 3.4.1  Students eligible for free school meals

36 % of 5581 students in the senior cohort were entitled to free school meals.  We regressed Yr.11 GCSE results on baseline and study support variables for these students, separately for the advantaged and disadvantaged, having a full data set on 2225 such students.  For the 651 students entitled to FSM and the 1574 who were not we got broadly similar results, but with some differences of detail.

Those with FSM entitlement underperform relatively at GCSE (in terms of Best 5 GCSE performance) by about one and a third grades of a single GCSE score.  This reflects an attainment gap visible earlier at Yr.9.  Their attitudes to school generally and their academic self-esteem are also lower, although again only by a small amount.  They participate in study support no more and no less than students who are not eligible for free school meals, although perhaps a little more in Sporting and Aesthetic activities.

There is an interaction between FSM entitlement and gender. Among those with no entitlement, the gender gap is worth about two GCSE grade points to girls; but in the FSM group, it is worth two and a half GCSE grades.

Those with a FSM entitlement who participate in study support appear to benefit rather more from it in terms of how it boosts their GCSE performance.  Between the two groups, there are few differences as to which forms of study support are effective.  Broadly speaking, Subject-focussed study support and Easter school have the biggest apparent effects.  But the size of the effect is bigger for the FSM group, most dramatically in the effects of Yr.11 Subject-focussed provision, which is worth perhaps two grades on average to the FSM pupil and perhaps one grade to non-FSM pupil.

*Table 3.4.1 The free school meal entitlement divide*

|  | Not entitled | Entitled |
|---|---|---|
| No. | 1574 | 651 |
| Best 5 Score | 25.5 | 23.2 |
| Yr.9 English SATs level | 5.1 | 4.9 |
| Attitude to school | 49.3 | 49.1 |
| Academic self-esteem | 19.9 | 19.4 |
| Yr.10 Sport | 43 % | 43 % |
| Yr.11 Sport | 44 % | 46 % |
| Yr.10 Aesthetic | 20 % | 24 % |
| Yr.11 Aesthetic | 20 % | 22 % |
| Yr.10 Subject-focussed | 49% | 54 % |
| Yr.11 Subject-focussed* | 85 % | 86 % |
| Yr.10 Drop-in | 51 % | 53 % |
| Yr.11 Drop-in | 53 % | 52% |
| % Variance in GCSE explained by gender and Yr.9. | 57.7 %<br><br>(1.6 % due to gender) | 56.7%<br><br>(2.6 % due to gender) |
| Added effect of study support | 2.1 % | 3.6 % |
| Categories showing a statistically significant effect (**estimated grade value**) | **a). Yr.10 Subject-focussed (1.4)**<br>**b)Yr.10 Aesthetic (0.9)**<br>**c) Yr.11 subject (1.0)**<br>**d) Yr.11 Other (0.8)**<br>**e) Easter school(1.4)** | **a) Yr.10 Subject-focussed (1.5)**<br>**b) Yr.10 Drop-in (1.6)**<br>**c) Yr.11 subject (2.0)**<br>**d) Easter school (1.7)** |

## 3.4.2 Students with low academic self-esteem

If we divide the students into two rather polarised sets, these who scored less than 18 in the Yr.9 academic self-esteem scores and those who scored more than 20 (essentially the lowest scoring 40% and the highest scoring 30%), we see some wide gaps as they progress through Yrs.10 and 11.  One of the biggest gaps is in their propensity to respond to questionnaires, again giving very skewed sub-populations and again probably leading to underestimates of the true differences between these sub-populations.

Those with lower academic self-esteem in Yr.9 consistently participate less in study support in Yr.10 and Yr.11.  However, in both groups, those who attend forms of study support in Yrs.10 and 11 show greater development in their academic self-esteem than those who do not.  For those who started with low academic self-esteem, Sport seems to have a uniquely significant positive effect.

*Table 3.4.2  Attainment and academic self-esteem*

|  | Above 20 at Yr.9 | Below 18 at Yr.9 |
|---|---|---|
|  | n=578 | n=235 |
| Yr.11 Academic Self-esteem | 20.4 | 16.4 |
| gender | 51 % girls | 47 % girls |
| Attitude to school, Yr.9 | 51.5 (68th percentile) | 45.4 (35th percentile) |
| Yr.10 Sport | 44 % | 40 % |
| Yr.11 Sport | 46 % | 39 % |
| Yr.10 Aesthetic | 26 % | 19 % |
| Yr.11 Aesthetic | 28 % | 19 % |
| Yr.10 Subject-focussed  ! | .86 | .54 |
| Yr.11 Subject-focussed ! | 2.3 | 1.7 |
| Yr.10 Drop-in | 59 % | 49 % |
| Yr.11 Drop-in | 56 % | 49 % |
| % variance in Yr.11 academic self-esteem explained by Yr.9 factors | 9 % | 10 % |
| Added effect of study support | 5.5 % | 4.6 % |
| Categories showing a statistically significant effect | Yr.11 Subject-focussed(**)  Yr.11 study skills (**) | Yr.11 Subject-focussed (**)  Yr.10 Sport (*) |

(!= Mean number of such activities attended at least occasionally)
(**=significance p=<0.001, *=significance p<0.05)


Note A:  In separating out two sub-populations by using the criterion of "high" and "low" in terms of a population characteristic, subsequent apparent shifts in sub-population scores are vulnerable to effects which are purely statistical artefacts i.e. regression to the mean effects. However such effects only apply to subsequent application of the same measurement tool as was used to choose the sub-populations; such effects (being due only to random error in the initial separation of the sub-populations) should not cause any systematic errors in measurement <u>within</u> the sub-populations.

Note B:  All these sub-populations are skewed: the students on whom some data are missing and who therefore are excluded from the full analyses always come disproportionately from the lower scorers on all indices.  It is however probably safe to conclude that, for these reasons, such differences as emerge are <u>underestimates</u> of the true sub-population differences.

Note C:  There may however be measurement error which is due to the skew of distributions within the sub-populations.  The regression models used in this analysis have been moderated against such possible effects by monitoring both the Durbin-Watson statistic and the proportion of standardised residuals with values exceeding two. Judging by these criteria, the regression models appear robust.

## Appendix 3.5  Impact on Attitudes to School

The questionnaire, "You and Your School", was completed by approximately 6,500 students in Yr.9 and, two years later, by 5200 students in Yr.11. Factor analytic examination of the responses of the Yr.11 students indicated that the five-factor structure found by NFER was also obtained in this study, lending further credibility to the utility and appropriateness of the questionnaire as an instrument for the assessment of student attitudes. Table 3.5.1 shows the data set for the senior cohort. Note the apparent unwillingness to answer questions relating to Factor 5 (Participation in classroom discussion).

*Table 3.5.1  Senior cohort data set for attitude*

| | Yr.9 students | | | | | Yr.11 students | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Factor | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| N Valid | 6262 | 6306 | 6503 | 6119 | 3773 | 4814 | 4838 | 4979 | 4739 | 3748 |
| Missing | 1525 | 1481 | 1284 | 1668 | 4014 | 2647 | 2623 | 2482 | 2722 | 3713 |
| Mean | 48.05 | 39.53 | 40.93 | 19.09 | 12.9 | 46.50 | 35.54 | 39.97 | 18.57 | 13.89 |
| Std. Deviation | 7.24 | 5.10 | 3.20 | 2.72 | 2.67 | 7.48 | 5.95 | 3.49 | 2.93 | 2.97 |
| Range | 50.00 | 39.00 | 28.00 | 20.00 | 16.00 | 52.00 | 40.00 | 33.00 | 20.00 | 16.00 |

We found a high degree of correlations between the scales, which makes it meaningful to talk about "attitudes to school" in general as we have done in the discussion of our findings.  Table 3.5.2 shows the levels of correlation.

*Table 3.5.2  Correlations among the scales*

| | Factor 1 | Factor 2 | Factor 3 | Factor 4 | Factor 5 |
|---|---|---|---|---|---|
| **Factor 1** | | .56 | .43 | .44 | .41 |
| **Factor 2** | .59 | | .34 | .33 | .30 |
| **Factor 3** | .44 | .35 | | .35 | .32 |
| **Factor 4** | .49 | .35 | .38 | | .33 |
| **Factor 5** | .39 | .26 | .33 | .34 | |

Correlations are significant at the 0.01 level (2-tailed).

Note:   The Yr.9 correlations are above the diagonal and Yr.11 below.

Table 3.5.3 shows that girls' attitudes are slightly more positive than boys on all scales on the baseline and outcome measures.

*Table 3.5.3  Gender differences*

| | | Yr.9 students | | | | Yr.11 students | | | |
|---|---|---|---|---|---|---|---|---|---|
| Gender | | n= | Mean | Std. Deviation | Significance | n= | Mean | Std. Deviation | Significance |
| Scale 1 | Boy | 2747 | 46.65 | 7.47 | p < .001 | 2189 | 45.66 | 7.84 | p < .001 |
| | Girl | 3058 | 48.63 | 6.94 | | 2443 | 47.26 | 6.99 | |
| Scale 2 | Boy | 2811 | 39.48 | 5.10 | ns | 2233 | 34.88 | 6.11 | p < .001 |
| | Girl | 3135 | 39.58 | 5.07 | | 2471 | 36.20 | 5.60 | |
| Scale 3 | Boy | 2837 | 40.96 | 3.15 | ns | 2257 | 39.81 | 3.61 | p < .001 |
| | Girl | 3163 | 41.07 | 3.10 | | 2511 | 40.17 | 3.33 | |
| Scale 4 | Boy | 2862 | 18.99 | 2.78 | p < .001 | 2230 | 18.42 | 3.00 | p < .001 |
| | Girl | 3192 | 19.19 | 2.67 | | 2489 | 18.71 | 2.85 | |
| Scale 5 | Boy | 1758 | 13.07 | 2.63 | p < .001 | 1771 | 13.85 | 3.01 | p < .001 |
| | Girl | 1989 | 12.75 | 2.70 | | 1960 | 13.92 | 2.93 | |

We used a similar method of multiple regression analysis as that described in Appendix 3.2 to identify the effects first of the background factors and then of study support in Yrs.10 and 11.  Table 3.5.4 shows the variance explained on each of the attitude factors by firstly the baseline attitudes, then by gender, by school attended and finally by study support in Yr.10 and then Yr.11.  The table shows that study support participation in both Yrs.10 and 11 has a significant effect but the Yr.11 effect is much larger.  The size of the effect on the scales also varies.

*Table 3.5.4  Attitudes to school: Multiple Regression Models*

| Variables in model | Scale 1 | Scale2 | Scale 3 | Scale 4 | Scale 5 | Total score |
|---|---|---|---|---|---|---|
| Yr.9 Attitudes | **46.6%** | **46.6%** | **43.5%** | **56.5%** | **47.7%** | **51.2%** |
| Yr9. Attitudes + gender | **48.2%** | **48.5%** | **44.1%** | **56.7%** | **48.3%** | **53.1%** |
| Effect of gender | *1.5%* | *1.8%* | *0.6%* | *0.2%* | *0.6%* | *1.9%* |
| Yr9 attitudes + gender + school | **53.6%** | **57.9%** | **46.8%** | **59.0%** | **51.9%** | **57.9%** |
| Effect of school | *5.5%* | *10.1%* | *2.4%* | *2.6%* | *3.6%* | *5.4%* |
| Yr.9 attitudes + gender + school + Yr.10 study support | **54.6%** | **58.4%** | **47.7%** | **60.1%** | **54.6%** | **59.3%** |
| **Effect of Yr.10 study support** | *1.1%\*\** | *0.6% ns* | *0.8% ns* | *1.3%\*\** | *2.9%\*\** | *1.7%\*\** |
| Yr.9 attitudes + gender +school + Yr.10 study support + Yr.11 study support | **58.5%** | **59.7%** | **49.8%** | **62.9%** | **58.6%** | **63.3%** |
| **Effect of Yr.11 study support** | *4.5%\*\** | *1.5%\*\** | *2.0%\*\** | *3.5%\*\** | *4.5%\*\** | *4.8%\*\** |

(\*\*=significance p=<0.001, \*=significance p<0.05)

For Yr.10 significant study support effects are found only for Scales 1, 4,5 and Total. For Yr.11 highly significant study support effects are found for all of the attitude measures.

The "You and Your School" questionnaire also asked students about behaviour in and out of school.  The tables below report the findings

*Table 3.5.5  Correlations between attitude scales and leisure-time activities*

|  | Yr.9 students | | | | | Yr.11 students | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
|  | Scale | | | | | Scale | | | | |
|  | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| **Time spent on homework each day** | .32 | .20 | .20 | .31 | .19 | .39 | .26 | .24 | .36 | .25 |
| **Read for fun outside school** | -.30 | -.18 | -.17 | -.25 | -.23 | -.24 | -.15 | -.13 | -.23 | -.23 |
| **Hours spent watching TV/videos each day** | -.51 | -.14 | -.02 | -.09 | -.11 | -.18 | -.14 | -.09 | -.14 | -.13 |

Correlations are significant at the 0.01 level (2-tailed)

*Table 3.5.6  Truancy and attitudes*

|  |  | Yr.9 students | | |  |  | Yr.11 students | | |
|---|---|---|---|---|---|---|---|---|---|
| Played truant in Yr.9 |  | n= | Mean | Std. Deviation | Played truant in Yr.11 |  | n= | Mean | Std. Deviation |
| Scale 1 | Yes | 592 | 43.61 | 7.69 | Scale 1 | Yes | 1344 | 42.57 | 8.02 |
|  | No | 5321 | 48.66 | 6.98 |  | No | 3262 | 48.15 | 6.58 |
| Scale 2 | Yes | 593 | 37.52 | 5.81 | Scale 2 | Yes | 1357 | 33.01 | 6.22 |
|  | No | 5396 | 39.78 | 4.95 |  | No | 3303 | 36.59 | 5.43 |
| Scale 3 | Yes | 619 | 39.76 | 4.04 | Scale 3 | Yes | 1398 | 38.94 | 3.96 |
|  | No | 5502 | 41.15 | 2.98 |  | No | 3351 | 40.46 | 3.06 |
| Scale 4 | Yes | 570 | 17.64 | 3.09 | Scale 4 | Yes | 1329 | 17.14 | 3.05 |
|  | No | 5245 | 19.30 | 2.61 |  | No | 3230 | 19.20 | 2.65 |
| Scale 5 | Yes | 294 | 12.30 | 2.59 | Scale 5 | Yes | 1045 | 13.47 | 3.05 |
|  | No | 3381 | 12.94 | 2.67 |  | No | 2619 | 14.07 | 2.92 |

*Table 3.5.7  Differences in attitudes between participants and non-participants at lunch-time and after-school activities*

|  |  | Yr.9 students | | | Yr.11 students | | |
|---|---|---|---|---|---|---|---|
| Frequently attend lunch-time or after school activities |  | n= | Mean | Std. Deviation | n= | Mean | Std. Deviation |
| Scale 1 | Yes | 2933 | 49.31 | 6.84 | 2487 | 48.38 | 6.63 |
|  | No | 2976 | 46.93 | 7.43 | 2006 | 44.30 | 7.80 |
| Scale 2 | Yes | 3020 | 39.99 | 4.98 | 2545 | 36.42 | 5.55 |
|  | No | 3039 | 39.11 | 5.18 | 2034 | 34.59 | 6.15 |
| Scale 3 | Yes | 3052 | 41.35 | 2.97 | 2564 | 40.57 | 3.14 |
|  | No | 3061 | 40.60 | 3.31 | 2073 | 39.31 | 3.71 |
| Scale 4 | Yes | 2948 | 19.56 | 2.56 | 2483 | 19.34 | 2.60 |
|  | No | 2963 | 18.64 | 2.81 | 2021 | 17.68 | 3.03 |
| Scale 5 | Yes | 1885 | 13.55 | 2.62 | 2008 | 14.64 | 2.90 |
|  | No | 1791 | 12.21 | 2.56 | 1578 | 12.96 | 2.79 |

(All differences $p < 0.001$)

## Appendix 3.6  Impact on School Attendance.

Data on student attendance levels in Yr.11 in 1999-2000 was supplied by 20 schools. In all we received useable data on 3324 students across these schools.  The mean reported annual attendance in Yr.11 in 1999-00 for these students was 85%, varying at school level from about 80 % to about 90 %.

*Table 3.6.1  Percentage school attendance across the sample*

|  | Attendance |
|---|---|
| **At 25th percentile** | 81.0 % |
| **At 50th percentile** | 91.0 % |
| **At 75th percentile** | 97.0 % |

n=3324

We can see that the data (expressed as a percentage of possible total attendances) is skewed towards the top end, with the 25th percentile being an attendance of 81% and the median being 91 %.  The mean attendance figure was 85 % (a lot lower than the median because the worst quarter of attenders have attendance figures which ranged from zero to 81 %, whereas the best quarter of attenders have figures which range only from 97 % to 100 %).

For many (but not all) of these 3324 students we also held information on various characteristics when they were in Yr.9 of schooling:

- their score on an NVR test
- their entitlement to free school meals
- their gender
- their ethnicity
- their attitudes
- their performance on SATs tests in Maths, English and Science
- and (perhaps most crucially, in terms of having a baseline against which to examine added value effects) their reported attendance in Yr.9.

We then examined the correlations between each of these attributes and Yr.11 attendance.

- Gender has no apparent effect on Yr.11 school attendance.
- Entitlement to free school meals on its own predicts just over 3% of the variance in Yr.11 school attendance.
- Baseline (Yr.9) NVR scores on their own predict about 2.5% of the variation in Yr.11 school attendance
- Baseline (Yr.9)  SATs scores on their own each predict about 6% of the variation in Yr.11 school attendance
- Ethnicity predicts much less than 1% of the variation in Yr.11 school attendance

- Attitude to school on its own predicts about 2% of the variation in Yr.11 school attendance
- Academic self-esteem on its own predicts about 6% of the variation in Yr.11 school attendance.

However, when we put all these factors together into a regression model, we find that it is only three of the factors that contribute to the 21% of the variance in Yr.11 attendance that is explained for the 1054 students on whom we have a reasonably complete data set.

*Table 3.6.2  Factors explaining variance in Yr.11 attendance*

| Factor | Variance explained uniquely by this factor |
|---|---|
| FSM | **1.0%** |
| English SATs | **3.2 %** |
| Yr.9 attendance | **13.7 %** |

(n=1054)

Essentially we can now use a baseline of these three significant background predictors of Yr.11 attendance.  The next issue is whether we can uncover features of the experience of these students which influence Yr.11 attendance <u>relative to that baseline.</u>

*Table 3.6.3  Study support effects*

| | |
|---|---|
| 1. Background Factors: | 21.3 %  ** |
| 2. Added Study Support effects | 27.7 % ** |
| 3. Added School Effects | 36.2 % ** |

(**=significance p=<0.001, *=significance p<0.05)

We can see that, relative to background factors, study support explains a further 6% or so of the variance in Yr.11 attendance (and then the school attended adds a further 8% for reasons which appear to have little to do with study support).

We can also see *which types of study support provision* appear to make a difference. Out of the 21 separate study support categories that we examined across Yrs.10 and 11, Table 3.6.4 shows the six that give significant positive effects.

*Table 3.6.4  Study support effects (n=1054)*

| Categories of study support | Model 2` | Model 3 |
|---|---|---|
| (Yr.10 Subject-focussed) | .06* | .03ns |
| (Yr.10 Sport) | .12** | .03ns |
| **Yr.11 Subject-focussed** | .07** | .08** |
| (Yr.11 Sport) | .06* | .03ns |
| (Yr.11 Peer education) | .07* | .01ns |
| **Yr.11 Drop-in** | .06ns | .14** |

(**=significance p=<0.001, *=significance p<0.05)

There is also some prima facie evidence that the forms of study support in parentheses vary in their effects in a way which is systematically linked to inter-school differences; whereas the effects of Yr.11 Subject-focussed and Yr.11 Drop-in are rather more uniform across different kinds of school.

Schools do things in Yrs.10 and 11 which make a difference to school attendance in Yr.11; i.e. the difference is attributable to the school, not to the different mix of student background in different schools or to their history before Yr.10.
Once differences in student background are taken into account, the most effective of the schools we studied was achieving a student attendance rate approximately 10% higher than the least effective one.

## Appendix 3.7  The Cumulative Effect of Study Support

We were concerned to see how far participation in study support influenced the likelihood of subsequent participation.  In other words, does study support become habit forming, signifying that self reported changes in attitudes are actually influencing behaviour.  We examined in detail those forms of study support which we had found to have large effects on GCSE results, that is Yr.11 Easter school and Subject-focussed provision.

As far as Easter school is concerned, it occurred for the senior cohort when we had collected data on participation in all other forms of study support.  We were able therefore to create a model in which we asked whether participation/non-participation in Easter school was affected, not only by any of the social and academic history of the students, but also by any of their previous history of participation/non-participation in study support over Yrs.10 and 11.

Therefore, we looked at the extent to which Easter school participation was affected by:

- gender, ethnicity, entitlement to free school meals
- Yr.9 attitudes
- Yr.9 SATs scores
- Yr.9 attendance at school
- study support participation in Yrs.10/11
- school attended.

We examined the extent to which variance in Easter school participation is explained by these factors, as we successively put these blocks of variables into a model in which Easter school attendance was the dependent variable.  (Participation was measured on a 6-point scale where students attended from zero to five different forms of Easter school activity)

*Table 3.7.1  Participation in Easter school  Model 1*

|  | Extra variance explained |
| --- | --- |
| by Gender, ethnicity, FSM | 0.7 % * |
| by Yr.9 attitudes | 3.9  % ** |
| by Yr.9 SATs scores | 2.2 % ** |
| by Yr.9 school attendance | zero |
| **By Study support participation in Yrs. 10/11** | 4.6 % ** |
| by School attended | 30.7 % ** |
| TOTAL VARIANCE EXPLAINED | **48.6 %** |

n=1120

We discovered:

- A very marginal tendency for girls and for students with a free school meal entitlement to be more likely to participate in Easter schools.  Ethnicity has no effect.
- That an attitude of positive academic self-esteem in Yr.9 is associated with participation in Easter school two years later.
- A high Yr.9 English SATs score is positively associated with participation.
- Yr.9 school attendance has no impact.
- A previous history of study support participation has a very significant impact on participation in Easter school.  (In particular the ones which seem to cause this are : participation in Yr.10 Study skills; in Yr.11 Subject-focussed; and participation in Yr.11 Drop-in provision.)

However, the decisive factor is the school.

We can refine the model by getting rid of ethnicity, free school meal entitlement, Maths and Science SATs scores and Yr.9 school attendance data; and in doing so we increase the number of students (and the number of schools) examined (because some students had data missing on the variables which we are now no longer examining but do have a full data set on the more restricted set of variables left in the model; and some of this missing data was missing at a school level).

*Table 3.7.2  Participation in Easter school  Model 2*

|  | Extra variance explained |
|---|---|
| by Gender, ethnicity, FSM | 0.4 % ** |
| by Yr.9 attitudes | 3.4 % ** |
| by Yr.9 SATs scores | 2.5 % ** |
| **by Study support participation in Yr.10/11** | 4.6 % ** |
| by School attended | 36.9 % ** |
| TOTAL VARIANCE EXPLAINED | **47. 8 %** |

n=2048

With this much larger sample, we get substantially the same results i.e.

- A very marginal tendency for girls and students with a free school meal entitlement to be more likely to participate
- The attitude of positive academic self-esteem is strongly associated with participation
- A high Yr.9 English SATs score is positively associated with participation
- A previous history of SS participation has a very significant impact.  (Yr.10 Study Skills; Yr.10 Drop-in ; Yr.11 Subject-focussed; Yr.11 Drop-in )

But the decisive factor is school, even more decisive than before (probably because the sample has a larger number of schools in it).  We were also able to establish the reason for

this. Firstly, some schools make no Easter school provision. Secondly, even when they did, at one extreme, we had a number of such schools where only 25% of the students were recorded as having attended any such provision; at the other extreme, we had schools which recorded 60% to 70% at each of several separate parts of Easter provision.

Even the list of **which** particular previous study support participation relates to participation in Easter school is much the same, except that Yr.10 Drop-in features in it. It is also worth noting that these results hold across the sample of schools, i.e. they are the study support variables which feature **when we control the model for the particular school attended by different students.**

We carried out the same broad analysis on participation in Yr.11 Subject-focussed provision (measured on a five-point scale where students reported attending anything from zero to four such forms of study support provision); but clearly we now can focus only on the extent to which Yr.10 participation might affect participation a year later.

*Table 3.7.3  Participation in Yr.11 subject-related study support  Model 1*

|  | Variance explained |
|---|---|
| by Gender, ethnicity, FSM | 5.1 % ** |
| by Yr.9 attitudes | 6.2 % ** |
| by Yr.9 SATs scores | 0.5 % * |
| by Yr.9 school attendance | 0.1 % ns |
| **by Study support participation in Yr.10** | 4.0 % ** |
| by School attended | 17.3 % ** |
| TOTAL VARIANCE EXPLAINED | **33.2 %** |

n=1120

Black and Asian students are very much more likely to go to this form of provision, and girls rather more than boys. Free school meal entitlement had no effect. General attitude to school and high academic self-esteem predict participation. English Yr.9 SATs score has a modest effect. Participation in Yr.10 Subject-focused provision, in Yr.10 Drop-in and in Yr.10 Other provision has quite a large effect. The school attended has the largest effect.

We removed FSM and Maths and science SATs from the model to get the sample size up.

*Table 3.7.4  Participation in Yr.11 subject-related study support  Model 2*

|  | Variance explained |
|---|---|
| by Gender, ethnicity, FSM | 3.9 % ** |
| by Yr.9 attitudes | 3.9 % ** |
| by Yr.9 SATs scores | 1.0 % ** |
| **by Study support participation in Yr.10** | 5.3 % ** |
| by School attended | 22.3 % ** |
| TOTAL VARIANCE EXPLAINED | **36.4 %** |

n=2214

This confirmed that:

- Black and Asian students are very much more likely to go; girls rather more than boys
- General attitude to school and high academic self-esteem predict attendance
- English SATs score has a modest effect
- Yr.10 Subject-focussed, Yr.10 Drop-in, Yr.10 Sport and Yr.10 Other have quite a big effect.

School attended has an even bigger effect, probably because one of the ways the sample has grown is by having an increased number of schools in it.  This is reinforced when one examines such data at individual school level.  At one extreme are schools where less than half the students report ever participating in **any** form of subject-related study support; at the other extreme are schools where the **average** student reports participation (at least occasionally) in **two or more** such activities.

In summary some individual characteristics such as gender, ethnicity, entitlement to free school meals, past academic performance and academic attitude are related to participation, but these effects are really rather modest.  A history of having participated in study support has a reasonably substantial effect on the likelihood of a student participating in subsequent provision.  A student who participates in Drop-in provision in Yr.10 is more likely to participate in subject-related provision in Yr.11 and is in turn then more likely to attend Easter school towards the end of Yr.11.  Participation in study support appears to be a habit-forming type of activity.  However, the habit is not necessarily a decisive one: many students participate in Yr.11 although their participation earlier in the school may have been modest or non-existent.

The school attended has a major effect on the chances of student participation.  Schools vary enormously in the amount and range of provision they make and in the extent to which they persuade students to take advantage of the provision.

# Appendix 4  The NFER Case Studies and Authentic Voice Interviews

## 4.1  The NFER Case Studies

A team of researchers from the National Foundation for Educational Research (NFER) and Create Consultants were commissioned by the NYA to undertake case studies of study support at 12 secondary schools.  This work was designed to provide a qualitative perspective to complement the large-scale quantitative research.  The Steering Group selected the schools to represent different LEAs and different approaches to study support, but generally the schools were chosen to demonstrate aspects of good practice.  Each school was visited on a number of occasions.  The resulting data were written as a case study and sent to each of the schools for verification in December 2000.  It is worth noting that several of the coordinators said that reading their case study had shown them how much progress they had made.

### 4.1.1  The 12 Case Study Schools:
Broadgreen Community Comprehensive School, Liverpool
Byng Kenrick Central School, Birmingham
Campion Catholic High School, Liverpool
Hampstead School, Camden
Oaklands School, Tower Hamlets
The Royal Docks Community School, Newham
Sarah Bonnell School, Newham
Shireland Language College, Sandwell
St Kentigern's Academy, West Lothian
Swanshurst Secondary School, Birmingham
Walker Technology College, Newcastle-upon-Tyne
Yardleys School, Birmingham

The case studies are available on the world wide web at www.qiss.org.uk and from September 2001 on the Department for Education and Skills Standards Site.

## 4.2  The Authentic Voice Interviews

The authentic voice interviews were conducted in the schools listed below according to a structured interview schedule.

A small sub-group of students who were regular participants at study support and those who did not participate were interviewed by schools or in some cases staff were also interviewed.

### 4.2.1 The authentic voice schools

Bristnall Hall High School, Sandwell
Cathays High School, Cardiff
Chesterfield High School, Sefton
George Green's School, Tower Hamlets
Golden Hillock School, Birmingham
Greenbank High School, Sefton
Harrow High School, Harrow
Hurlingham & Chelsea School, Hammersmith and Fulham
John Bunyan Upper School & Community College, Bedford
Kenton School, Newcastle
Lister School, Newham
LOGIN Café, Barrhead, East Renfrewshire
Patcham High School, Brighton and Hove
Warley High School, Sandwell
West Denton High School, Newcastle
Varndean School, Brighton and Hove
Willows High School, Cardiff˄
Yewlands School, Sheffield
St Cecilia's College, Derry

Throughout the report extracts and quotes have been used passim from the NFER case studies and the Authentic Voice interviews. All extracts from the NFER case studies are referenced appropriately, all quotes without this referencing have been taken from the Authentic Voice Interviews.

# Appendix 5  Bibliography and References

Barber, B. and Eccles, Stone (2000), "Whatever happened to the Jock, the Brain and the Princess?" University of Arizona, Research paper.

Bruner, J. (1996) The Culture of Education.
Boston, Mass., Harvard University Press

Csikszentmihalyi, M. (1990), Flow: the psychology of optimal experience.
New York, Harper Perennial.

Csiksztentmihalyi, M. (1993), The Evolving Self.
New York, Harper Collins.

DfEE (1998), Extending Opportunity: A National Framework for Study Support.
ISBN 0 855 22 755 9.

Dweck, C.S. and Licht, B.G. (1980), *Learned Helplessness and Intellectual Achievement* in [J Garbar and M Seligman (Eds)] Human Helplessness.
New York: Academic Press.

Elliot, J. (1996), *School Effectiveness Research and its Critics: alternative visions of schooling*. in Cambridge Journal of Education. Vol 26, no 2, pp 199-223.

Entwistle, N. (1988), Styles of Teaching and Learning.
London, David Fulton.

Gardner, H. (1993), Frames of Mind: The Theory of Multiple Intelligences.
London, Basic Books.

Gardner, H. (1993), The Unschooled Mind: How children think and how schools should teach.
London, Basic Books.

Harris, J.R. (1998), The Nurture Assumption.
London, Bloomsbury.

Keys, W. and Fernandes, C. NFER (1993), What do students think about school?
ISBN 0-7005-1333-7

MacBeath, J. (1991) A Place for Success.
London, The Prince's Trust.

MacBeath, J. (1992) Learning for Yourself.
Quality in Education Centre, University of Strathclyde.

MacBeath, J. and Boyd, B. and Newall, F. (1993), Study Support Materials.
Prince's Trust Events Ltd.

MacBeath, J. et al. QIE (1997), Study Support The Code of Practice.
The National Youth Agency.
ISBN 1 85098 579 0

MacBeath, J. and Jakobsen, L. and Meuret, D. and Schratz, M. (2000)
Self-evaluation in European Schools: A Story of Change.
London, Routledge Falmer.

MacBeath, J. and Mortimore, P. (2001), Improving School Effectiveness.
Buckingham, Open University Press.

MacBeath (1998) *I Didn't Know He Was Ill. The role and Value of the Critical
Friend* in 'No Quick Fixes. Perspectives on Schools in Difficulty' edited by Stoll, L
and Myers, K. Falmer Press

Martin, P. (1997), The Sickening Mind.
London: Flamingo.

Morgan, A. and Hall, R. (1999), Study Support A Code of Practice for The Primary
Sector.
DfEE Publications, ISBN: 1841850748

Mortimore, P., Sammons, P., Stoll, L., Lewis, D., and Ecob, R. (1989)
School Matters, London, Open Books.

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

Perkins, D. (1995), Smart Schools.
New York, The Free Press.

Perkins, D. (1998), *Learning for Understanding*, Paper given at West Lothian/Quality
in Education Seminar, September.

Rutter, M. and Maugham, B. and Mortimore, P. and Ouston, P. with Smith, A. (1979)
Fifteen Thousand Hours: Secondary schools and their effects on children.
London: Open Books.

Seligman, M. (1984), Helplessness.
New York: Academic Press.

Sharp, C. and Mawson, C. and Pocklington, K. and Kendall, L. and Morrison, J.
(1999) Playing for Success: an Evaluation of the First Year.
DfEE Research Report 167, London: DfEE.

Thomas, S. et al. (1998) *The Improving School Effectiveness Project: Issues for
Policy and Practice,* paper presented at the annual Meeting of the International
Congress for School Effectiveness and School Improvement, San Antonio, Texas;
January 3-6, 1999.

Thomas, S, et al (2001) in MacBeath, J. and Mortimore, P. Improving School Effectiveness. Buckingham, Open University Press.

Thomas, S., Smees, R., MacBeath, J., Sammons, P., and Robertson, P. (1998) *Creating a Value-added Framework for Scottish Schools*: *A policy paper*, paper presented at the International Congress for School Effectiveness and Improvement, University of Manchester, January 1998.

Thrupp, M. (1999) Schools Making a Difference: Let's be Realistic. Buckingham, Open University Press.

Vygotsky, (1987) Mind in Society, Cambridge, Mass., Harvard University Press.

Weiner, G. (2000) *Critiques of School Effectiveness*, paper delivered at the American Research Association, New Orleans, April.

White, J and Barber, M. (Eds.) Perspectives on School Effectiveness and School Improvement, London, Institute of Education.

Wigfield, A. and Eccles, J.S. and Rodriquez, D. (1998), *'The development of students' motivation in school contexts'*. in Review of Research in Education 23, Washington: AERA.

Willms, J.D. (1985), *The Balance Thesis - contextual effects of ability on pupils "O" grade examination results*, in Oxford Review of Education 11, (1): 33-41

Willms, J.D. (1997) Parental Choice and Education Policy. CED Briefing, No. 12.

Wragg, T. (2001), *Breaking Through to Learning*. Unpublished address to HCD Conference, Merchant Taylor's Hall, London, February.

Zimmerman, B.J. (1994), *Dimensions of academic self-regulation: a conceptual framework for education*. In: Schunk, D.H. and Zimmerman, B.J. (Eds). Self-Regulation of Learning and Performance. Hove: Lawrence Erlbaum Associates.