Good Practice in Cutting Bureaucracy/2

- The introduction of information and communication technology (ICT) and electronic data handling
- The transfer of tasks from teachers to support staff

Companion volume to
Bureaucracy Cutting Toolkit
Good Practice in Cutting Bureaucracy

**department for
education and skills**
creating opportunity, releasing potential, achieving excellence

PRICEWATERHOUSECOOPERS

Contents

Introduction

Cutting unnecessary burdens on teachers is an essential part of ensuring we have a valued and motivated teaching profession. It also allows teachers to concentrate on their key goal – raising standards. We are therefore delighted to present to you with this, the second companion volume of good practice examples to the Bureaucracy Cutting Toolkit (ref:BCT). Together with the first volume of good practice examples (ref:CVGP), these form a practical guide with a wealth of information that will help all schools and teachers.

The Toolkit and two volumes of good practice examples have grown out of a project involving 20 schools in Derby City, Kent, Surrey and Birmingham LEAs, working with the Department and PricewaterhouseCoopers. Together they represent a simple but effective approach. That is what makes them so useful – often simple solutions can be implemented without huge resources, and often it is the simple solutions that save the most time.

Please let other school know what you are doing. Word of mouth is very important in ensuring that documents like these are used effectively.

We have set up the 'Cutting Burdens' website on TeacherNet (www.teachernet.gov.uk/cuttingburdens), which has online versions of the Toolkit and the two volumes of good practice examples. However, there are inevitably areas not covered by these examples, so the website also allows you to join a discussion area to share good practice and feedback your ideas. Furthermore, the website contains information on school workforce reform – including the Time for Standards consultation, the National Agreement and remodelling advice and guidance.

The National Remodelling Team (NRT) has been established to ensure the development of a national network of support to help schools implement workforce reform. The team is led by Dame Patricia Collarbone, Director of Leadership Development Programmes at the National College for School Leadership (NCSL). The NRT provides advice, guidance, case studies and training materials for schools. The NRT are working closely with LEAs to take over 23,000 schools in England through the remodelling process. They are training and supporting LEA remodelling champions to help schools manage the change process and encourage them in developing their own solutions and in learning from other schools. Further information can be found on the NRT website – www.remodelling.org.

Also, as part of the Department's National Agreement commitments, we have set up the Implementation Review Unit (IRU), featuring a regionally based Practitioners' Panel made up 9 headteachers, 2 senior teachers and 1 bursar. The IRU considers the impact of new and current policies on the 'front line' staff who implement them. The Panel has direct access to Ministers and will make sure that grass-root concerns get through to the Department and central agencies and are tackled. For further information please see the IRU website – www.dfes.gov.uk/iru.

1 Project summary

1.1 In January 2000 the then Department for Education and Employment (DfEE) asked PricewaterhouseCoopers to undertake a project to "Investigate, Test and Implement a Holistic Approach to Reducing Bureaucratic Burdens in a Range of Schools". This was a second phase of work, which aimed to build on the work of Phase 1[1] by focusing on how individual schools could implement good practice in setting up "lean burn" management and administrative systems across the full range of their activities. Phase 2 focused in particular on:

- The introduction of information and communication technology (ICT) and electronic data handling
- The transfer of tasks from teachers to support staff.

Phase 2 methodology

1.2 PricewaterhouseCoopers (PwC) worked with six schools drawn from Surrey and Birmingham LEAs comprising two primary, three secondary and one all-age special school. The LEAs and schools were chosen as in one way or another they had demonstrated innovative approaches to use of ICT or to reducing bureaucracy in other ways. The work had five main components:

1 Planning and project set-up – the LEAs and schools were selected and initial aims were clarified

2 Process mapping and baseline evaluation – each school, with consultancy support (from PwC and DfES), identified how a large number of different processes were carried out and the time taken by them. From this, schools selected those where there was greatest scope for savings and improvement

3 Redesign – the schools, with PwC and LEA support, identified new ways to undertake certain processes, and the resources and changes that would be needed to implement them

4 Implementation – the schools and LEAs procured new hardware, software and other necessary infrastructure and training to support introduction of the new processes

5 Evaluation – PwC and DfES consultants reassessed the processes in order to measure the impact of the change; and the schools conducted a range of staff surveys within a common framework in order to capture staff views.

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1 In the Phase 1 project, PwC worked with 14 schools in Kent and Derby City LEAs to identify how schools could set up low burden administrative systems and how LEAs can play an effective gatekeeper role. Outputs included good practice examples, a self-review toolkit for use by school managers, criteria for LEAs in their gatekeeper role, a methodology for testing the impact on schools of DfEE policy initiatives before such initiatives are finalised and launched, advice to the Department on the feasibility of its vision of the school of the future, and a Cutting Burdens web site where schools can exchange ideas on reducing bureaucracy and visit and add to the good practice examples and toolkit (www.dfes.gov.uk/cuttingburdens).

Key findings

1.3   The outputs from Phase 2 consist of a set of 12 project descriptions from the six participating schools. Whilst the project descriptions contain specific findings for each project, there are a number of more general findings that can be summarised in terms of the benefits, costs and enablers.

Benefits

1.4   All six schools found that the redesigned systems allowed more efficient processing of tasks, and allowed support staff to take on a range of tasks previously undertaken by teachers, such as data entry and record management. One school was also able to pass to support staff a range of administrative tasks such as filing, collation of records, collecting money for/ organising school trips, proof reading and correction of reports, installing software and changing print cartridges.

1.5   All schools reported that these improvements resulted in time savings. These were measured in a variety of ways – for example
● 2000 teacher hours a year were saved across one school through transfer of administrative tasks to support staff
● A faster network link saved a small group of staff some 5 hours a week
● A collaborative planning tool saved each relevant teacher around two hours in their weekly planning work
● Software to support SEN reviews has already saved an estimate of 40 hours across the school staff each school year, with further gains expected as the project develops.

1.6   Saving teacher time on such tasks had a number of consequential benefits for some staff such as improved teacher morale, reduced stress and frustration. There was also a perception that better use was being made of the time saved.

1.7   There were a number of other benefits for teachers including:
● Improved teacher ICT skills and confidence
● Better communication between staff
● Better collaboration over planning leading to more efficient and higher quality planning
● Data accessed and used more frequently, leading to improved accuracy of records.

1.8   There were also direct benefits to parents, in terms of clearer reports and better parental access to data on pupil progress.

1.9   Whilst all the above would be likely to have consequential benefits for pupils, there were some improvements reported that would have a direct link to improved teaching and learning including:
● Better pupil data, combined with better quality planning, allowing greater focus on individual pupil progress and higher quality teaching

- Greater clarity over assessment due to establishment of common approaches between departments
- Improved pupil behaviour management due to a combination of better monitoring (due to better and more timely data) and greater consistency of application of sanctions.

Enablers and costs

1.10   The project highlighted the need for sufficient access to ICT (in terms of location of access points and system functionality and speed) as a precursor to:
- Teachers being able to use ICT management systems as a replacement for, not duplication of, paper-based systems
- Teachers using ICT on a sufficiently regular basis to become confident – and therefore more efficient in – using ICT.

1.11   The costs of establishing this level of sufficiency were from around £10,000 to £30,000 per school, although most of the schools were starting from a relatively high base position.

1.12   In terms of software to support data management, all six project schools reviewed the commercial market (or had recently done so before the project started) and, as a result, three schools used nationally available commercial software; and three schools developed in-house solutions. Most of the schools were pleased with the route they had taken, although by the end of the project, at least one of those using commercial software was exploring alternatives, having encountered some frustrations.

1.13   All six schools found that increased access to technical IT support was necessary in order to develop and maintain new systems.

1.14   Significant management and teacher time was required in the early stages to develop and manage the projects, and to undertake associated tasks, such as designing school-wide planning systems. Significant administrative time was usually required, for example to load paper-based plans onto electronic systems.

Conclusion

1.15   All the schools found the project of significant value and believe that the benefits achieved can have wider application in other schools. Details of each project, and contact details for the schools, are contained in the following reports.

1.16   We are grateful to the schools and LEAs for the time and support they provided, without which the study could not have taken place.

2 Prince Albert Primary School: Development of a web-based support system for teacher planning and preparation

2.1 Prince Albert is a large community primary school in Birmingham, with a nursery unit and a total roll of some 750 pupils aged 3-11 years.

Objectives of the Project

2.2 The issue to be tackled was the excessive time consumed by curriculum planning. This included team discussion, communication between and across multi-disciplinary planning teams, related planning by individual teachers, and the subsequent paper transfer.

2.3 There was also a high burden for teachers in working with a large amount of printed material – including bulky folders with curriculum initiatives, national and school-based policies and the like – and in transporting this frequently between school and home.

Solution

2.4 Several steps were identified as necessary to provide a solution.

2.5 These were initially carefully planned and scheduled to develop the work in a number of stages as follows:
- Initially with a pilot year group
- Then to involve an additional Year Group
- And eventually, to roll-out the system throughout the school.

2.6 However, as soon as other staff saw how helpful and liberating the project was to the first participating Year Group, the schedule was, by agreement, rapidly advanced to launch the whole school into the project.

2.7 Key enabling features were:
- Time to discuss with staff how the strategy might be agreed and developed
- Time allocated to Year Group teams to support collaborative planning – currently one half day per half term
- Moderating the planning process, and transferring planning documentation to electronic format
- Additional secretarial provision to input relevant information from nationally recommended schemes of work, the locally agreed school-based policies, and the planning profiles agreed by Year Group teams
- In some subjects, this also includes model lesson plans to assist collaborative work, support for supply staff etc.

- Ready access by staff to Internet connected ICT facilities at school and at home
- In-school technician support for training and operational issues
- Home access facilitated by a school contribution to running costs – e.g. towards telephone costs.

2.8   Initially, the work was CD based – pre-loaded in school with all the information which had previously taken up several heavy boxes. Staff were able to use these CDs at school or home, leading to one of the in-school names for the project: *the electronic box*.

2.9   As the project developed, the school switched to using a commercially managed web site. This allows 24-hour access and immediate viewing of any amendments made recently by colleagues, plus access to resources and the sharing of ideas.

Benefits

2.10   Early indications from the project are very positive. Evaluation indicates that:
- The quality of planning has risen
- Time saved across the school has allowed greater focus on individual pupil progress
- Learning has been enhanced
- Communication between and across multi-disciplinary planning teams has improved
- Paper transfer for the production of half-termly plans has been abolished
- The burdens of time and effort in mobilising and transporting large amounts of printed material have been removed
- Staff have placed a high value on the time provided for collaborative team planning
- Staff find it easier to review and amend previous planning profiles
- Staff comment positively about the liberating effect of the changes, and consider that stress has eased considerably. One Year Group Leader commented:
  "It's the best tool that's been around for years to help people share ideas."

2.11   There has also been a substantial reduction in:
- Photocopying costs (by at least £3,000 annually)
- Weekly time spent photocopying sheets for colleagues
- Time spent writing out planning profiles.

2.12   The demonstrable value of the time allocated for collaborative planning each half term has also led the school to pilot the allocation of Monitoring and Support Time (MAST) for every teacher each week. Allocations vary according to responsibilities. At a minimum, it is a quarter of a day, and would be more if the budget allowed.

Costs:

2.13 Project costs include:
- Development time by the Head and the project planning group
- Additional hours for the network administrator to establish the system, and for administrative staff to input relevant information. This is from QCA recommended Schemes of Work, National Strategies, the locally agreed school-based policies, and the planning profiles agreed by Year Group Teams
- £12,500 – to support home access to ICT, documentation, staff development and cover for development and in-school evaluation
- £9,000 for hardware purchase and development of terminal access
- Ongoing school funding to maintain collaborative planning time for each Year Group – one half-day every half term.

Wider application

2.14 The potential for wider applications seems high: both in term of the ICT aspects, and the advantages of collegiate planning. This project emphasises the need for good access to ICT facilities at school and at home in order to maximise the benefits and opportunities.

2.15 For more information, contact Dave Brodie or Sharon Allcock at the school on enquiry@pralbert.bham.sch.uk or see the school web site: http://atschool.eduweb.co.uk/prinalj2

3 Prince Albert Primary School: Production of ICT pupil profiles in electronic form

3.1 Prince Albert is a large community primary school with a nursery unit and a total roll of some 750 pupils aged 3-11 years.

Objectives of the Project

3.2 The aim was to capture, in electronic format, precise and sophisticated assessments of each pupil's abilities and progress in ICT.

Solution

3.3 The solution involved reviewing existing text profiles and in considering and selecting options for electronic format.

3.4 There was also the development of appropriate software, with careful access protocols to allow pupils to update their own profiles but not have access to other pupils' records; and to allow staff to monitor the inputs, and extract overviews of individual and class progress.

Benefits

3.5 The main benefits of the project are:
- Effective and efficient recording and retrieval, allowing improved focus on pupil progress
- Pupils empowered to assess and record their own progress
- Teachers have ready access to individual pupils' profiles to allow monitoring of their assessments, and also class, year group and school overviews to support monitoring, evaluation and planning.

Costs:

3.6
- Development time by the Headteacher and project planning group
- Additional hours for the network administrator to develop the profiles and load data
- Cover for training
- Advice on electronic format.

Wider application

3.7   This application has major potential for adoption elsewhere – both in other subjects and in other schools. Work is also being undertaken on appropriate electronic methods of transferring data to secondary schools, and pilot work on Mathematics is currently being developed at Prince Albert.

3.8   For more information, contact Dave Brodie or Sharon Allcock at the school on enquiry@pralbert.bham.sch.uk, or visit the school web site: http://atschool.eduweb.co.uk/prinalj2

4 Wilson Stuart School: Support for curriculum planning

4.1 Wilson Stuart is a Birmingham school for children aged 2 – 19 years who have a physical disability. There are therefore four main age phases to their work: nursery, primary, secondary and post-16. The school shares a campus with two other schools and much of its secondary curriculum is delivered at a shared secondary resources centre.

Objectives of the Project

4.2 There was already much imaginative use of ICT in the curriculum and in some aspects of school management and communications. ICT facilities were also tailored to individual pupils and students – frequently requiring special purchases and adaptations. This project was therefore designed to advance other aspects and was developed to establish facilities and support for the primary & secondary core curriculum teams.

Solution

4.3 The main aim was to secure easily accessible ICT facilities and efficient and effective systems for curriculum planning for the core subject teams.

4.4 Initial discussions determined the scope of the project and subjects to be addressed first. The concentration was on Pre-National Curriculum work and Key Stages 1 & 2. Existing ICT provision was audited, and additional PCs were bought. This included CD writing facilities.

4.5 The nature and status of each scheme of work was investigated and this included consideration of how best to introduce the Pre-National Curriculum Scales – the "P Levels" – into electronic documents.

4.6 Source documents for subject planning work were collated onto CD, allowing easy and immediate access by staff.

Benefits

4.7 The provision of additional machines has allowed the full network installation to be completed. This allows full access to nationally provided curriculum guidance and locally agreed school policies from anywhere in school.

4.8 Planning can be carried out efficiently and effectively whilst staff retain a consistency of approach.

4.9 Collaborative planning has revealed processes that were able to be removed, having been shown to be superfluous to the more streamlined, but rigorous process. Where the steps in the process have remained, staff can identify either time saved, or enhancements to the way they work.

4.10 The time saved can help to reduce overall working hours, or can be devoted to individual pupil target setting, review and assessment.

4.11 One teacher commented: "This definitely saves time and is of real benefit. It can reduce a three hour job to one hour."

Costs

4.12 £7,600 for provision of eight additional PCs and one PC with CD writing capability for staff team use.

4.13 In-school project development time by the Head and Deputy Head.

4.14 Supply cover for core curriculum teams for training and development of planning systems.

4.15 Project support and LEA assistance in systems audit, support, training and equipment purchase.

4.16 Acquisition of ICT technician support.

Wider application

4.17 The approach adopted by the school has potential for wider application – depending on:
- Good access to ICT facilities by teachers – when and where they need access
- A whole school approach to facilitating the planning process
- Good in-school project leadership
- Investment in ICT technician support to prevent teachers and managers being distracted by technical problem solving.

4.18 For more information, contact Dave Wood at the school on Dave.Wood@wilsonst.bham.sch.uk or visit the school web site: http://www.wilsonstuart.bham.sch.uk

5 Wilson Stuart School: Electronic access to pupil data

5.1   Wilson Stuart is a school for children aged 2 – 19 years who have a physical disability. There are therefore four main age phases to their work: nursery, primary, secondary and post-16. The school shares a campus with two other schools and much of its secondary curriculum is delivered at a shared secondary resources centre.

Objectives of the Project

5.2   There was already much imaginative use of ICT in the curriculum and in some aspects of school management and communications. ICT facilities were also tailored to individual pupils and students – frequently requiring special purchases and adaptations. This project was therefore designed to advance other aspects and was developed to establish facilities and support ease of access to pupil data.

Solution

5.3   The main aim was to provide accurate and simplified systems for reviewing pupil data by the Senior Management Team and Senior Teachers. It was also designed to facilitate access by extending the system to all classrooms.

5.4   This involved additional training in the use of the SIMS software, and the development of arrangements to increase the use of the system and the accuracy of the database.

Benefits

5.5   The main benefit to the school's staff is in having immediate access to an integrated pupil database. This minimised the time spent on:
- Updating pupil information
- Tracking students; and
- Organising individual or group changes to the timetable or making transport arrangements at short notice.

5.6   Pupil data previously held are also checked and revised for accuracy as staff make increased use of them. Some tasks previously carried out by teachers have been completely removed as information can be transferred electronically.

Costs

5.7   The project makes good use of the additional PCs referred to in a related project (eight additional PCs and one PC with CD writing capability) at a cost of £7,600.

5.8   Additional costs have involved:
- In-school project development time by the Head and Deputy Head
- Project planning time
- On site SIMS analysis and appropriate software
- Supply cover for training.

5.9   As a related initiative prompted by the clear benefits of the project, the school has recently purchased 15 laptops to further extend the ease and flexibility of staff access to ICT facilities.

Wider application

5.10   The approach adopted by the school has potential for wider application, depending on:
- Good access to ICT facilities by all staff
- A whole school approach to data management
- Good in-school project leadership
- Investment in ICT technician support to prevent teachers and managers being distracted by technical problem solving.

5.11   For more information, contact Dave Wood at the school on Dave.Wood@wilsonst.bham.sch.uk or visit the school web site: http://www.wilsonstuart.bham.sch.uk

6 Wilson Stuart School: Reviewing student needs and reporting progress

6.1 Wilson Stuart is a school for children aged 2 – 19 years who have a physical disability. There are therefore four main age phases to their work: nursery, primary, secondary and post-16. The school shares a campus with two other schools and much of its secondary curriculum is delivered at a shared secondary resources centre.

Objectives of the Project

6.2 There was already much imaginative use of ICT in the curriculum and in some aspects of school management and communications. ICT facilities were also tailored to individual pupils and students – frequently requiring special purchases and adaptations. This project was therefore designed to advance other aspects and was developed to provide effective and freely available systems of:
- Reviewing the statements of special educational needs for pupils and students; and
- Reporting on their progress.

Solution

6.3 The main aim was to secure appropriate software, and this required some investigation of the market and some testing of suitability for use in school. Currently, the school is testing software to support the writing of reports on student progress and their Individual Education Plans.

Benefits

6.4 Although in the early stages, and not yet fully developed or evaluated, there has been an immediate impact in the removal from teachers of the tasks of writing the key data on each form. This is assessed as a total saving of some 40 hours across the school year.

6.5 In addition to the hours saved, this advance has been much appreciated by teachers.

6.6 Additional benefits are expected as the system develops and helps to minimise teacher time further.

Costs

6.7 The project makes good use of the additional PCs referred to in a related project (eight additional PCs and one PC with CD writing capability) at a cost of £7,600.

6.8   Additional costs have involved:
- In-school project development time by the Head and Deputy Head
- Project planning time and research with consultants and LEA on possible options
- Assessment and exploration time by Head and Deputy Head
- Evaluation of software as to suitability
- Cover for training
- Additional hours for administrative input of data.

Wider application

6.9   Although still at pilot stage and relatively under-developed, the project is showing positive results and indicate good potential for wider application.

6.10   For more information, contact Dave Wood at the school on Dave.Wood@wilsonst.bham.sch.uk or visit the school web site: http://www.wilsonstuart.bham.sch.uk

7 The Broadway School: Management of information on students' academic and pastoral progress

7.1 The Broadway School, Birmingham, is a 1300 place, mixed Community Comprehensive school for students aged 11-19 years. It is on two main sites with an annexe on a third. Years 7 and 8 are together on one main site, and years 9 and upwards on the other.

Objectives of the Project

7.2 The school had some advanced ICT practice in some Departments but the very slow ICT access and transfer times between sites represented a brake on development and had led to some inefficient processes.

7.3 This project was therefore designed to improve communication and specifically to:
- Establish a fast, efficient, electronic link between sites (see related entry)
- Pump-prime further equipment provision
- Develop more widespread effective access to ICT
- Improve communication for staff working across the sites
- Provide coherent information management systems for curriculum and pastoral heads.

Solution

7.4 The key steps identified as necessary to implement this solution were:
- Securing funding, ordering equipment, and project planning
- Installing cabling and equipment.[see link to next project]
- Planning and implementing staff training
- Supporting system introduction and further familiarisation
- Entering data.

Benefits

7.5 The Assessment aspects of the Project have been overseen by an Assessment Task Group in the school, led by an Assistant Headteacher. The main developmental outcomes have been:
- Enhanced skills and confidence levels, allowing curriculum heads to develop effective and cohesive assessment procedures, leading to greater consistency and improvements in communication between faculty areas, management, parents and students
- Curriculum heads having sufficient flexibility to develop subject-related assessment and recording within a coherent whole school framework

- Agreement on a limited number of key assessments within each subject. These are available to all subject staff across the school. This allows:
  - A coherent analysis of student progress in all subjects
  - Departmental staff to consider a student's progress in other subjects and discuss with colleagues practices and initiatives that are delivering successful outcomes for a particular student
- Within each Department, there can be a more detailed analysis of strengths and areas for improvement for each student within that curriculum area
- Extrapolation from each stage of assessment, which allows analysis of student progress against expectations and an assessment of the added value by the school
- Administrative, curriculum and pastoral staff have quick and effective access to record information and monitor student progress.

7.6   The additional benefits have been:

Staff:
- Staff access improved and usage increased
- Substantial time savings – particularly in accessing up to date student information and on departmental management matters
- Increased staff morale and motivation
- More productive use of time
- Greater focus of analytical effort, support and intervention
- More effective and efficient ICT based curriculum management
- More effective and cohesive assessment procedures.

Students:
- Enhanced learning opportunities
- Improved student attendance
- More accurate information for admission procedures
- Improved options and timetabling procedures.

All:
- Higher quality communication between faculty areas, management, parents and students.

Costs

7.7   Costs have included:
- Provision of additional equipment – £18,100
- In-school project development time by school Project Leader and newly formed Project Team
- Training, familiarisation, and follow-up time for curriculum heads.

Wider application

7.8   The approach adopted in seeking ICT based solutions to common teacher workload problems has the potential to be applied to any school.

7.9   Particular aspects likely to be relevant to other schools include:

- The need to ensure good access by teachers to a computer terminal when and where they need it at that particular time
- The potential for ICT access to performance and pastoral data to support many aspects of teachers' work
- The potential for linking administrative, pastoral and student progress data and the need for most staff to have access to all
- The ability of the system to keep information up to date
- A greater sense of ownership of student data by all staff
- The use of a widely-used school administration package (SIMS in this case) to provide this communication
- The problems and solutions to installing a link between two sites 1.5 miles apart (see also separate entry on this initiative).

7.10   For more information, contact Jim Barton at the school on jim.barton@broadway.bham.sch.uk or visit the school web site: http://atschool.eduweb.co.uk/broadway

8 The Broadway School: Creating an improved electronic link between sites

8.1 The Broadway School is a 1300 place, mixed Community Comprehensive school for students aged 11-19 years. It is on two main sites with an annexe on a third. Years 7 and 8 are together on one main site, and years 9 and upwards on the other.

Objectives of the Project

8.2 The school had some advanced ICT practice in some Departments but the very slow ICT access and transfer times between sites represented a brake on development and had led to some inefficient processes.

8.3 This project was therefore designed to improve communication: specifically – to establish a fast, efficient, electronic link between sites in order to improve communication for staff working across the sites and provide improved access to information management systems.

Solution

8.4 The main aims were:
- To improve management and inter-staff communication between the two main sites
- To support further ICT developments by providing effective and efficient links between parts of the school
- To produce substantial time savings by all staff using ICT facilities.

8.5 The key steps identified as necessary to secure these aims were:
- Researching options and identifying possible funding sources
- Exploring the technical feasibility
- Commissioning the agreed link
- In order to assist evaluation, establishing a set of baseline timings and frequency of activities with existing system
- Securing the installation
- Beginning to operate and to evaluate the benefits.

Benefits

8.6 An early evaluation of time responses from the new installation indicates substantial time savings for a range of ICT processes as indicated below. These are, of course, timings for individual processes, and mask the multiplier effect of repeatedly having to interrogate the system for similar aspects of information. Staff responses have therefore been extremely positive.

8.7   Staff cite a lowering of frustration, and much better use of their time. The new speed of the system has also meant that other computers in curriculum areas are now feasible (particularly Science and Special Educational Needs).

8.8   A number of standard tasks using the administration system were timed before and after the installation of the new link.

Action	Before Link	After Link
	Seconds	*Seconds*
Log on to system (Launcher)	120	55
Read 10 attendance OMR's	170	75
Set up to use Midas	345	95
Set up to use Nova	60	25
Set up to use Star	170	75

8.9   As can be seen from this table, substantial savings on time are now being made with the new link. An estimate of the time saved by a small group of staff, who during the course of the week have to do several of the above tasks many times, is between 5 and 6 hours. In addition, the ability to place extra machines on that site for other curriculum and pastoral areas means that staff on this Campus staff now feel more a part of the whole school with comparable facilities.

Costs

8.10   Substantial resources were required to facilitate this aspect of the Project, and the school budget met all costs in full:
● Installation costs for the new link of £17,400
● In-school project development time by school Project Leader
● Staff time for baseline recording and subsequent evaluation.

Wider application

8.11   The experience gained with this project is likely to benefit any school considering enhanced communication between separate campuses of a split site. Jim Barton, Assistant Headteacher at the school on jim.barton@broadway.bham.sch.uk or visit the school web site: http://atschool.eduweb.co.uk/broadway

9 St Lawrence Primary School: Introducing class based electronic recording of pupil performance

9.1 St Lawrence is a one-form entry community primary school in Surrey for pupils aged 5-11. It has recently changed its age range, having previously been an infant school.

Objectives of the project

9.2 The headteacher saw the introduction of ICT based tools available to all teachers for managing pupil assessment, setting targets and reporting to parents as likely to make a contribution to teacher management of their workload with a consequent reduction in bureaucracy. This view was based on his experience of developing data storage and management systems for his own use as headteacher, using standard software such as Excel and MS Access. This had convinced him of the potential benefits, even in a relatively small school, for individual teachers as well as for management of a whole school approach to the use of ICT for managing pupil data using widely available software.

9.3 The project aimed to achieve this by providing every class teacher with access in their own classroom to an ICT based system for recording pupil assessments and individual targets and for generating data for reports to parents. Through use of such a system it was intended to reduce the burden on classroom teachers of recording, assessing and reporting.

Solution

9.4 For these objectives to be achieved, it was necessary first to invest time and other resources in preparation:
- The school developed templates covering the range of internal record keeping required for assessment, target setting and monitoring of pupil progress
- The optimum software option to meet the needs of classroom teachers and senior managers was researched and identified. This needed to be capable of use by all teachers including those with limited ICT experience. It also needed to be backed by appropriate training. This was mainly in the form of an external commercial training package for the headteacher who then cascaded relevant aspects to other staff during staff training days
- With assistance from the LEA, an appropriate network was designed and hardware and cabling installed. This met the school's wish not to have classroom based PCs dedicated solely to administrative use but to ensure that there was direct benefit to children's learning from the investment made by multi-purpose use of hardware.

9.5 Once preparation was complete the school was able to start introducing electronic recording of assessment data by all classroom teachers. Foundation subjects were used to pilot the system and core subjects will follow.

Benefits

9.6 An initial evaluation of the project confirms a number of benefits:
- All teachers are entering text data for assessment of foundation subjects to a common database for pupil performance. Text data are also being entered for termly 'stepping stones' assessments. Staff can now directly input key numerical performance data directly into the database although issues of accuracy and security need to be considered
- Bureaucracy for teachers in meeting requirements of target setting, assessment and reporting has been reduced through changes in school policy on the frequency of target setting and the choice of topics for assessment, and through use of the new system. This enables teachers to build up text data incrementally across the year, which may then be used for summative reporting to parents. Thus the summer term 'bottle-neck' for writing and collating reports is replaced by a steady accumulation of data across the year
- More effective use of pupil data is now possible in working towards school improvement targets. Individual and class/group analysis can be undertaken very efficiently and effectively. The system of capturing key data is managed by the headteacher in consultation with class teacher thus ensuring consistency of approach across the school.

Costs

9.7 The total cost of the project was £11685 for hardware (£8050), software and licensing (£1335), training (£800) and installation (£1500). This provision included purchase and networking of 7 classroom PCs and a laptop.

Wider application

9.8 The development of direct entry of data by classroom teachers into a whole school database has the potential to reduce bureaucracy and improve professional use of data in any primary school. The use of standard widely available software was an attractive feature for a small school with limited resources and without on-site ICT technical support.

9.9 The school has identified the following issues for schools considering such a development:
- The need to review the totality of the school's assessment processes in order to minimise teacher workload and maximise the potential for communication and sharing of current relevant data
- The need to establish the principle of single entry for all data in order to avoid inappropriate replication/duplication when recording and managing data
- The efficiency benefits gained through recording all data for central access by Headteacher and Senior Management Team and Key Stage Co-ordinators
- The need to rationalise current assessment policies and practices, and to eliminate processes which are redundant, or which collate redundant information

- The need to ensure the development of a manageable system for data entry, data interrogation and report collation
- The importance of a school strategy for developing and maintaining the database and the computer network with appropriate in service training to support this
- The need to have access to in-service training geared to an analysis of the school's ICT resources and assessment requirements
- The need to consider how and by whom the network and database will be maintained.

9.10   Further information can be requested from the school by e-mailing headmail@stlawrence-primary.surrey.sch.uk.

10 Howard of Effingham School: Enhancing staff access to ICT and technical support

10.1   Howard of Effingham is an 11-18 comprehensive mixed community secondary school in Surrey.

Objectives of the project

10.2   The school wished to review its use of ICT to support the functions of planning, targeting, monitoring and reporting of pupil progress and thereby to reduce administrative burdens on teachers. At the outset of the project there were no systems in place which could support these processes in a coherent or whole-school way.

10.3   The objective of the first strand of the project was to enhance staff access to ICT for administrative purposes and to upgrade the level of technical support for ICT hardware and software. This would allow extension of the school administration network to cover all areas of the site and all departments and enable the school to develop ICT strategies and systems for reducing the burden on teachers throughout the school.

Solution

10.4   A number of key steps were identified as necessary to create the right ICT environment in the school for the development of this programme and for ensuring that staff had the right support in using new systems. Those steps were:
● Installing extended network cabling and a new server
● Commissioning/debugging of new network and basic systems
● Training of staff in use of basic ICT systems and software
● Increasing technician time by 1 Full-time Equivalent (FTE) ICT technician
● Developing and introducing specific ICT based processes designed to relieve teachers of burdens.

10.5   A key element of this was an increase in technician time in order to:
● Increase the in-house capacity for technical support for ICT
● Accelerate progress across all ICT related aspects of the project
● Relieve senior teachers of direct involvement in resolving hardware and software problems encountered by staff in both administrative and curriculum computing
● Achieve earlier completion and commissioning of extended networks.

10.6   The project commenced with the installation of the extended network. Focused work on staff training and development of ICT strategies for reducing burdens was dependent on a significant reduction in the amount of senior teacher time devoted to technical support of existing systems and installation and commissioning of the extended network and new server. This reduction was

not possible until the appointment and arrival in post of the additional ICT Technician. A first group of administrative processes were tackled including producing staff planners, developing an electronic detention system, improving access to the school's NOVA-T system and providing pre-printed assessment sheets. Further developments on these lines are planned.

Benefits

10.7 The initial evaluation shows that the main gains have been:
- Reduced workload on staff in relation to generating lists and writing them out
- Greater access and use of ICT because of technician support
- Some benefits to student learning through improved behaviour monitoring
- Greater consistency across all staff for monitoring
- Clearer reports to parents
- Better ICT skills among all staff
- Raising the awareness of what can be done through ICT.

10.8 The main barriers have been a lack of access to ICT to staff during non-contact time and development time and the lack of ICT skills among some staff. Both aspects are to be addressed in the next phase of the project.

Costs

10.9 Additional resources were required to facilitate this programme and to underpin the parallel installation and development of a data management system for pupil data. Those resources were met by a combination of project and school funds. The details were as follows:
- £7190 for extending school network to all buildings
- £2000 for new server
- £6000 for first part-year cost of additional ICT technician time (full annual costs will be £18,000)
- Staff development and training time
- Headteacher and Senior Management time.

Wider application

10.10 The broad approach adopted by the school to seeking ICT based solutions to common teacher workload problems is one that has the potential to be applied in any school.

10.11 Particular aspects of the project which will be of relevance to other schools include:
- The investment in ICT technical support to underpin an increasingly ICT dependent environment and to ensure that teachers, including senior teachers, are not distracted by technical problem solving and/or systems failure
- The need to ensure good access for teachers to a computer terminal when and where they need it

● The nature of the small scale but burden-reducing ICT based processes introduced to support teachers.

10.12   This should be read in conjunction with "Choosing, Customising and Installing a Whole School Data Management system for Pupil Performance" in order to understand the whole-school transformation aimed for by the two projects together.

10.13   Further information can be requested from the school by e-mailing admin0@the-howard.demon.co.uk

11 Howard of Effingham School: Choosing, customising and installing a whole-school data management system for pupil performance

11.1 Howard of Effingham is an 11-18 comprehensive mixed community secondary school.

Objectives of the project

11.2 The school wished to review its use of ICT to support the functions of planning, targeting, monitoring and reporting of pupil progress and thereby to reduce administrative burdens on teachers.

11.3 A key component of this was to develop a whole school system for staff to record and gain access to student performance data. This would not only encourage use of such data for professional purposes but would also enable ICT to support functions in which data were required such as report writing which impact on teacher workload. It would also give senior managers quicker access to more sophisticated performance and other management data

Solution

11.4 The school had access to and experience of a system providing a similar function in a post 16 setting. This system was evaluated against other commercially available software and a decision taken, with the support of the LEA, to develop a version of the system as an in-house option on the understanding that the system was fully documented and not reliant in the longer term on any individual's knowledge or copyright.

11.5 Initial development of this system has focused on three software applications which have been designed, tested and implemented. These are:
- A detention tracking system
- A central database of all exam results going back to 1997
- A reporting system which captures termly and yearly assessment data.

Benefits

11.6 Staff found a reduction in the time they spent on tracking student detentions. Senior managers were now able to access information on what was happening throughout the school and there was shared knowledge about which students had been given, and therefore should be receiving detentions each day. As a result, there was some improved behaviour and learning of students.

11.7   Analysis of examination results and yearly assessment data was possible for larger groups of students than previously. Analysis of progress could now be evaluated using different exam data types. There had also been a reduction in time required for those staff who had ready access to computers. Mistakes made in inputting data or in generating reports were more easily corrected with the final document being 'cleaner'. Electronic data was available 'on tap' for student tracking and discussion with students rather than just as part of a periodic report. The tracking of student progress was therefore easier and more up to date, as data were already entered in the system ready for processing.

11.8   The SMT now have a greater understanding of trends that affect the running of the school e.g. standards of behaviour and student progress which were not previously accessible. These empirical data have provided a means of evaluating new initiatives.

11.9   The use of ICT to automate collation and printing of information in many different systems within the school has given staff, particularly at a senior level, more control of events of the day to day running of the school.

Costs

11.10   The resources required to take forward this element of the project were largely in the form of senior management time to evaluate options, develop and test new applications and lead staff training. However the project was also dependent on the investment made in ICT technician time and an enhanced network capacity in the school, as follows:
● £7190 for extending school network to all buildings
● £2000 for new server
● £6000 for first part-year cost of additional ICT technician time (full annual costs will be £18,000)
● Staff development and training time
● Headteacher and Senior Management time.

11.11   The main barriers to quicker embedding of the new system were restricted teacher access to computers, lack of staff ICT skills, the amount of teacher time required to learn new systems and development time required for staff managing the project.

Wider Application

11.12   The gains above are significant, and are potentially available to other secondary schools that develop whole school data management systems accessible by all staff.

11.13   Further information can be requested from the school by e-mailing admin0@the-howard.demon.co.uk

12 The Winston Churchill School: Development of the STAATS data management system

12.1 The Winston Churchill School is an 11-16 Foundation mixed comprehensive secondary school in Surrey.

Objectives of the project

12.2 Prior to the project the school had already developed its own software for pupil performance management in conjunction with a local software house.

12.3 The initial success of this system known as STAATS, had led to a wish to develop its use further. Such development however would depend on improving teacher access to ICT and the capability of the software to meet additional needs. The overall objectives of the project were therefore:
- To improve the performance of the ICT infrastructure to enable it to match (in terms of capacity and speed) both the demands currently made of it by staff and also likely future levels of demand
- To extend the current scope of the STAATS software to incorporate more areas of school activity, greater analytical/reporting capability and more satisfactory interfaces with other products including SIMS, MS Windows and MS Word.

Solution

12.4 A number of steps were identified and addressed as necessary to bring about the required development of, and changes to, the system and its use. These included:
- Analysis of current technical and user problems with current STAATS system
- Establishing whole school and staff data requirements
- Consideration of the options for improvement and their resource requirements
- Identification of and provision for staff training needs
- Planning implementation in consultation with the software supplier
- Implementation and testing of revised systems.

12.5 The requirement for additional software development led to discussions between the school and the software company on future ownership and marketing of the software. The outcome of this was that ownership passed to the software company in exchange for it undertaking, without charge, developments and improvements required by the school. An upgrade of the school's own networks enabled both the academic and the administrative data systems to be accessed from all PCs available for teacher use and to establish links where common data needed to be shared between the systems.

Outcomes

12.6   The initial evaluation of the project identified the following gains:
- Staff access to STAATS was improved and usage increased – the need for further improvements to access was identified
- Export and import of data between academic and administrative systems improved
- The speed of response of the system was quicker and the main technical obstacles to encouraging and securing greater staff use of STAATS had been removed
- Across 16 different applications a majority of staff responding to the evaluation reported that some, significant or considerable time was being saved as a result of the improvements and their increased use of STAATS. The greatest gains with more than 75% of respondents reporting savings in time were in:
  – Head of Year feedback on performance of whole year group
  – Head of Department access to performance data for setting purposes
  – Subject feedback to assess progress of whole groups
  – Teacher access to student information for performance management
  – Teacher access to data on students from previous years
  – Teacher access to information on students for threshold applications.
- Time saving was also reported in relation to checking differentiation of assessment tests, preparation of individual education plans, copying of reports for parents, ability to prepare reports at home and some other aspects of reporting and assessment.

Costs

12.7   The costs of training were met from within the school budget supplemented by the use of programmes already being supported through Standards Fund and New Opportunities Fund. An additional server, software, licenses and cabling were installed at a total cost of £9100. In addition was time for staff training and for in-school project management.

Wider application

12.8   Aspects of the project that are relevant to other schools include:
- The potential for on line performance data to support many aspects of teachers' work
- The need for data systems to be accessible when teachers need to use them
- The need for administrative and curriculum data systems to be linked and the need for most staff to have access to both
- The advantages and disadvantages for schools of 'home grown' data management systems.

12.9   Further information can be requested from the school by e-mailing office@winstonchurchill.surrey.sch.uk

13 The Winston Churchill School: Reducing teachers' administrative tasks through increased use of support staff

13.1   The Winston Churchill School is an 11-16 Foundation mixed comprehensive secondary school.

Objectives of the project

13.2   With the introduction of new arrangements for academic tutoring and changes in the structure of the school day, the school was concerned to maximise the use of teacher time for professional tasks by reducing the burden of routine tasks that could be undertaken by others. The objective therefore was to relieve teachers of administrative tasks through improved procedures and/or greater use of support staff.

Solution

13.3   A task force was set up to identify the steps to be taken in specific areas of activity, the resource requirements and success criteria, and to implement changes. This programme comprised:
- Identification of bureaucratic tasks undertaken by teachers
- Identification and quantification of need for additional input from support staff
- Supplementing support staffing levels as necessary
- Redesigning/redefining procedures where need for more efficient procedures was identified
- Facilitating the transfer of identified tasks from teachers to support staff.

Benefits

13.4   The initial evaluation showed that it had been possible to identify a wide range of tasks where teachers could benefit including:

Head of Year filing	Printing of Yr11 reports for tutors
Collating support sheets for tutor groups	Loading new CD ROMS onto network
Collecting money for school trips	Changing print cartridges
Correction of errors in reports	Training in use of school data network
Distribution of locker keys	Entering absence codes on Bromcom

Updating school records	Printing reports to parents
Printing of academic profiles	SEN filing
Use of standard letters	Departmental filing
Photocopying for individual teachers	Collating letters for form groups
Collating staff development information	Distributing letters for form groups
Distributing letters for school trips	Departmental photocopying
Organisation of school trips	Contacting Yr 11 leavers

13.5   The total aggregate time saved by teachers responding to the evaluation survey was 183 hours. This represents the time saved by about a quarter of the staff over one term. Extrapolated for the full staff for a full school year a saving of over 2000 hours of teacher time is feasible. Discussion with teachers indicate that there may be some areas (e.g. school trips) where the potential for help can be explored further.

13.6   Initial awareness among teachers, and therefore use by teachers of the new arrangements, was patchy. Many teachers had not taken advantage of the support available to them and the school needs to do more to embed the new procedures and to improve the skills of teachers in the delegation of tasks to support staff.

Costs

13.7   Assistance was given by the project in process mapping, a technique which helps to identify inefficient or unnecessary steps in a process and to redesign it. Additional support staff were employed at an annual cost of £16000. A mix of project and school budgets met these costs for the first year, with the school undertaking to fund the full cost thereafter. Redesignating part of the duties of existing support staff provided additional support.

Wider application

13.8   The potential for this type of development to reduce workload on teachers in any school is considerable. The benefits have resulted from a concentrated 'task force' approach to identifying the tasks that teachers need not do or those tasks where they could benefit from support. Linking this activity to improved methods and the availability of additional support staff resources increases the likelihood of change taking root although it is likely that all schools will find that time is required to persuade teachers to adopt new working methods.

13.9   Further information can be requested from the school by e-mailing office@winstonchurchill.surrey.sch.uk