naace

NATIONAL ASSOCIATION OF ADVISERS FOR
COMPUTERS IN EDUCATION

*The professional association for those who are involved in advancing education
through the appropriate use of information and communications technology*

Inspiring change through ICT

Suggestions for Priorities 2003 - 2007

In January 2002, a booklet called "Transforming the way we learn: a vision for the future of ICT in schools" was published at BETT by the DfES to stimulate an informed debate on how ICT can transform teaching and learning. NAACE was asked by DfES to take that debate further and to report on whether "Transforming Learning" fully describes what we should be trying to achieve or whether there are aspects of the "vision" that need further development; and also to advise the Department on their priorities and strategies over the next four years to deliver that vision. A summary of the outcomes is described below.

A powerful vision for children's learning in the 21st Century is shaping our thoughts on the future of schooling. We talk of anytime, anywhere learning; of a culture in which pupils work with teachers to develop control of their own learning. We envisage a society in which teachers are part of a connected community, drawing support and inspiration from the sharing of good practice and effective resources. We look to a time when schools can manage the workload of staff so they can focus on using their professional skills in the classroom.

Educational research suggests that change only becomes embedded into practice when schools take ownership of the agenda and when innovation comes from the school itself. This vision for learning will only take effect if it gains the commitment of schools to embrace these ideas and mould them to reflect the needs of their communities. It can be supported externally and nurtured but not imposed externally.

ICT can be a powerful resource for supporting school-directed change. Funding for ICT in Schools will influence the direction and the speed of innovation over the next four years. It is our recommendation that resources are targeted to areas that will drive the priorities and strategies to make transforming the way we learn into a reality.

Three themes to drive school capacity to sustain self-directed change.

- ❖ Transforming teaching and learning
- ❖ Connected communities
- ❖ Managing the effective learning environment

Transforming teaching and learning

"ICT can transform the way that education is delivered and open the way to a new pedagogy. It can make it easier for teachers to plan and find high quality materials, and it can help pupils to find out more about the subjects that they are studying. Critically, new technology can enable teachers to tailor their teaching more closely to the abilities of individual pupils"

Schools: achieving success
DfES, September 2001

Characteristics

- ❖ **The autonomous learner**– taking responsibility for learning – emotional resilience – motivation
- ❖ **Teacher as facilitator** - matching teaching and learning styles – personalised curriculum — differentiation – sharing learning with the learner – learning with pupils – learning teams – using "outside" experts
- ❖ **The learning process** – higher order thinking skills – assessment/feedback/accreditation/flexibility
- ❖ **Interactive resources –** quality assured – individual and group activity
- ❖ **Access to learning** – anytime anywhere – home/school – digital divide – prior concurrent learning – multi-cultural

Suggested priority for sustaining change

- ❖ All pupils have the opportunity to access digital resources, both Internet based and school based, from inside and outside the school
- ❖ All teachers have access to a range of technologies to equip them appropriately for their professional needs by enabling the use of digital resources to prepare and teach with ICT
- ❖ Interactive resources and learning opportunities which promote higher order thinking skills and autonomous learning
- ❖ Research grants identified to explore teaching styles that enable pupils to become autonomous learners
- ❖ CPD for educators - facilitating learning - higher order skills – planning and assessment
- ❖ Encouragement to schools to take innovative action

Government actions

- ❖ Champion schemes to provide access to resources and opportunities for pupils out of school: e-learning foundations, public libraries, Playing for Success centres, study support centres, UK online centres
- ❖ Use government and other funding to extend the Laptops for Teachers scheme to all teachers and to include schemes for support staff
- ❖ Promote a wide range of digital resources through Curriculum on Line
- ❖ Promote access to Curriculum on line from home, via regional broadband consortia portals.
- ❖ Develop further the role of ICT in the curriculum, especially in the National Literacy Strategy, National Numeracy Strategy and Key Stage 3 Strategy to include guidelines for assessment for subject attainment when ICT is used
- ❖ Provide guidelines on the assessment of ICT capability as part of the ICT strand of the Key Stage 3 Strategy, and in Key Stages 1 and 2.
- ❖ Open up formal examinations to ICT supported methods of producing work
- ❖ Support DfES Action Research bursaries to develop understanding of the learning process with ICT
- ❖ Promote more flexible employment patterns for educators
- ❖ Encourage the use of ICT to provide individualised learning

Suggested measures:

- ❖ Number of teachers provided with Laptops through government funding
- ❖ Evidence of increased access for pupils to ICT outside school, though libraries, e-learning foundations, out of school hours activities
- ❖ Increased numbers and range of resources available through Curriculum on Line
- ❖ All schools connected to the Internet and inter-connect through broadband technology
- ❖ Guidelines and resources published to support ICT in the curriculum
- ❖ Rise in levels of pupil achievement in ICT capability in KS 1and 2; clear progression from year six to seven, progress towards KS3 targets, numbers of pupils taking formal accreditation in ICT at KS4 as measured by Ofsted
- ❖ Becta analysis of the relationship between Ofsted judgements and pupil attainment/progress

- ❖ Increased levels of attainment across all subjects, key skills and value added measures, both in the school population and also education otherwise
- ❖ Evidence of increasing best practice through case studies published on the web, outcomes of Action Research bursaries
- ❖ CPD in facilitation and higher order thinking requiring external visits to view successful practice – supported by mentoring and formal accreditation against qualitative criteria
- ❖ Pupils demonstrate more positive attitudes to education and increased desire to take responsibility for their own learning . Reduction in behaviour problems, exclusions and improved attendance

Connecting communities

"Almost all of the innovative programmes of leadership development in the public and private sector are connecting participants to practice in a variety of ways particularly through the use of mentors and coaches. In education this involves both an access to professional learning teams, mentors and coaches as well as support from a co-ordinated network of providers. In addition, ICT is increasingly emerging as a central, integral interactive part of the learning cycle with emerging on-line learning, virtual activities, the use of websites, e-network and e-discussion groups"

"Think Tank report to Governing Council"
NCSL September 2001

Characteristics

- ❖ **Networked learning communities -** re-vitalising the teaching profession **–** valuing support staff – enriching stakeholder communities, including parents' voluntary sector, business community – strengthening citizenship
- ❖ **Collaboration** at the local level – belonging to professional network – teamwork - taking ownership of change **-** a collective voice - Sharing planning, information and communication – socialising in likeminded and divers communities
- ❖ **Reflective practitioners/reflective learners** - trial, experiment, refine- Informed professional judgement Innovation coming from the school itself
- ❖ **Best practice** - Role models – leading ICT teachers
- ❖ **Professional development** – strategic leadership – coaching – mentoring
- ❖ **Access to community** – anytime anywhere – home/school – ability to use broadband resources at home

Priority for sustaining change

- ❖ Networks established and supported to enable professional support and sharing of best practice – use of a range of learning styles, to include initial face to face elements
- ❖ Clusters and federations of schools growing out of informed dialogue – community leadership
- ❖ Introduction of Leading ICT teachers as role models
- ❖ Promote continuous professional development in ICT

Government actions

- ❖ Promote the development of networked learning communities, linked to professional development e.g. through NCSL, Think.com. These communities should involve LEAs, RBCs, community organisations, professional associations, including NAACE.
- ❖ Disseminate research evidence on effective use of on-line communities.
- ❖ Establish the Leading ICT Teachers scheme
- ❖ Support and encourage a range of CPD opportunities e.g. e-teaching, higher order thinking/ICT skills, strategic leadership in ICT, follow up to NOF with a range of teaching and learning styles,

* ❖ Numbers of SMTs, middle managers and bursars participating in networked learning communities supported by NCSL, or LEAs
* ❖ Number of Leading ICT teachers appointed – clear role, responsibility and systems supported by national network established
* ❖ Increased confidence of teachers using ICT as measured through DfES Statistical Survey
* ❖ Evaluation of networked learning communities and number of active participants
* ❖ Range of opportunities to participate in connected learning communities in a range of media

Managing the effective learning environment

"Schools will remain at the heart of the learning process for children and adults for the foreseeable future. Although ICT allows pupils, in theory, to learn from anywhere at any time, they still need the support of a regular base and a strong community. However the boundaries between schools and other learning places will be less clear cut and the school of the future will become a resource for the whole community."

Schools of the future: designs for Learning Communities
Building Bulletin 95, DfES, Summer 2002

"In addition to the direct curriculum benefits that can be gained from ICT use, we point in this report to a range of issues where process redesign can yield significant workload reductions whilst securing undoubted advances. Many of these applications, however, are dependent on widespread access to ICT facilities, as well as the development of a reasonable degree of familiarisation and efficiency in using the programmes in order to maximise their benefits.   We therefore have three specific options for consideration regarding ICT:

* ❖ Ensuring access to school networks and appropriate ICT for all teachers
* ❖ Improving access to and the quality of web-based resources
* ❖ Improving access to Electronic Whiteboards."

Teacher Workload Study; Final Report
PricewaterhouseCoopers, December 2001

Characteristics

* ❖ **Planning** for self-directed change – School Development planning – learning development
* ❖ **Managing the workload -** Data – MIS – e-registration – e-planning – security – management and administration tools
* ❖ **Broadening the media for learning** – on-line learning – digital video – video conferencing – accessible – multi-cultural
* ❖ **Availability and access to technical support and resources –** for all staff and pupils
* ❖ **Developing Infrastructure** – networks, fixed and mobile – intranet – broadband – linking curriculum/management/admin - MLE – caching - display equipment – fixtures and fittings, lighting -sound
* ❖ **Securing Sustainability** – resource allocation – learning and technical support staff – total cost of ownership – value for money – procurement advice and support
* ❖ **Promoting proven teaching technologies** – projectors, whiteboards
* ❖ **Enabling out of class access to school resources** – remote access- 24/7 - e-government – e-democracy – schools as hubs in networked learning communities – in-school access via libraries and learning resource centres **-** time for extended learning opportunities – five term year – reshaping the school day
* ❖ **Designing buildings** – design – accommodation – fixtures, fittings, individual learning spaces, flexibility of use – fit for purpose –open access ICT for sustained learning
* ❖ **Health and safety** – policies
* ❖ **Support staff** – e-learning – resource discovery and management – information skills - librarians

ICT in Schools' priority for sustaining change

- ❖ Guiding school development planning to ensure key themes of learning and ICT are embedded into whole school improvement
- ❖ Supporting the development of an accessible infrastructure, both inside the school and beyond for pupils and staff
- ❖ Embedding ICT purchase and renewal into schools' core funding
- ❖ Facilitating procurement advice and support including ongoing assessment of total cost of ownership
- ❖ Facilitating effective technical support serving both curriculum and administrative functions
- ❖ Re-engineering the school day, week and year to facilitate sustained learning activities
- ❖ Linking school and community through web based tools.
- ❖ Facilitating e-learning support for staff and pupils to support learning and knowledge discovery

Government actions

- ❖ Guide and monitor whole school development planning to include learning with and through ICT
- ❖ Supply of applications, templates and automated procedures to reduce the workload in schools
- ❖ Support schools in accessing national and local expertise in school building, ICT procurement and infrastructure design
- ❖ Support research into school timetabling procedures world wide and effects on learning and ethos
- ❖ Establish an accessible knowledge base on the development of learning environments that optimise learning with and through ICT
- ❖ Align the school capital programme to ensure transformation of learning can take place
- ❖ Establish a career structure for technical support staff and learning support staff in promoting e-learning
- ❖ Promote home community links through grants for action research and dissemination of best practice
- ❖ Develop a long-term unified national strategy for broadband services, to include a wider range of services such as libraries, community learning centres, museums and galleries alongside industrial, commercial and domestic uses
- ❖ Set out broad intentions with regard to any future specific funding of ICT beyond 2004 to ensure that recent advances in ICT resources in schools are maintained

Suggested measures

- ❖ Number and types of schools identified by Ofsted as providing effective learning environments with and through ICT
- ❖ Percentage of schools with effective learning and development plans for ICT clearly integrated within the whole school improvement plan, as measured by LEA returns to DfES
- ❖ Schools show increased expertise in procurement and infrastructure design as measured by value for money both in outcomes in pupil learning and in purchasing and deployment of ICT
- ❖ Number of PPP and PFI schemes that target provision of effective learning environments with and through ICT
- ❖ Schools demonstrate more efficient use of resources
- ❖ Publication of job profiles, training schemes and increase in numbers of technicians in schools
- ❖ Number of technical support staff in schools
- ❖ Evaluation and sharing of best practice resulting from funding to develop school community links
- ❖ Publication of national strategy for connectivity, content and support for learning, through digital resources and high speed connection to the Internet
- ❖ Identification of range of funding sources and publication of commitment to funding beyond 2004.

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