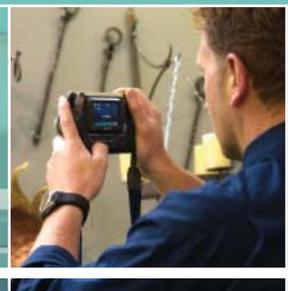# The ICT and e-learning in FE survey 2006

key findings

Becta
ICT Research

This is the seventh in a series that has assessed progress in the provision of ICT within further education (FE) and sixth-form colleges since 1999. The survey was carried out in February and March 2006 and a total of 122 colleges took part, representing 31 per cent of the sector.

Data was used from the survey to develop five key measures of e-enablement – the extent to which the FE sector is using ICT for teaching, learning, management and administration. These measures show how:

- learners are able to access the college ICT infrastructure

- colleges use and develop e-learning resources

- teaching staff have developed skills in ICT and e-learning along with their level of access to technology

- ICT is deployed for teaching and learning

- college managers use and manage their ICT resources.

Taken together, these measures give an overall picture of a college's engagement with ICT and e-learning.
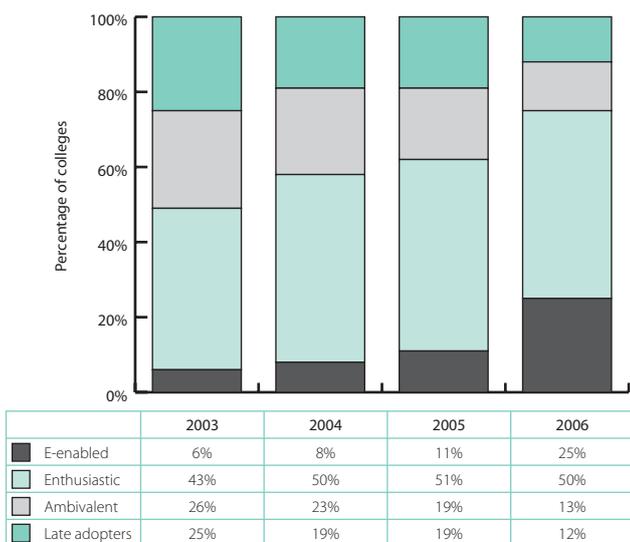
Figure 1 Measures of e-learning implementation
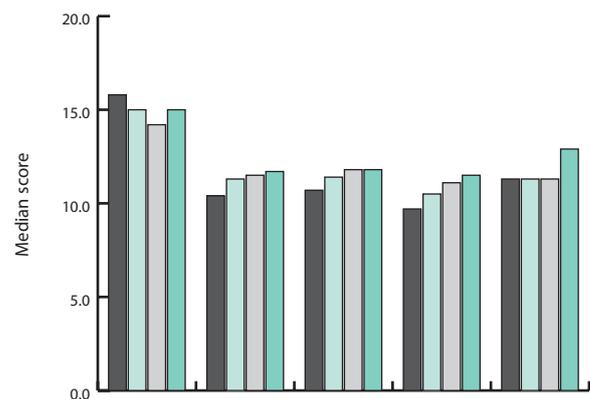
	Access	Resources	Workforce	Elearning	Management
2003	15.8	10.4	10.7	9.7	11.3
2004	15.0	11.3	11.4	10.5	11.3
2005	14.2	11.5	11.8	11.1	11.3
2006	15.0	11.7	11.8	11.5	11.5

The college sector has achieved a steady improvement across all measures and has continued to meet the challenge to increased student access posed by increased recruitment and retention of students.

Figure 2 Spectrum of e-enablement

	2003	2004	2005	2006
E-enabled	6%	8%	11%	25%
Enthusiastic	43%	50%	51%	50%
Ambivalent	26%	23%	19%	13%
Late adopters	25%	19%	19%	12%

Managing ICT and e-learning

Senior managers were committed to ICT and e-learning in the vast majority of colleges. Some 43 per cent per cent of respondents stated that their principal was a vocal advocate of e-learning. A further 42 per cent per cent stated that there were strong ICT champions at senior management level. ICT was driven forward by department heads in 7 per cent per cent of colleges and was considered the domain of small groups and enthusiasts in the remaining 7 per cent.

The decision to make use of e-learning materials was most often taken by individual tutors and was the case in 52 per cent of the colleges surveyed. Planning for the use of these materials at a higher level was far less widespread. Only 19 per cent of colleges had college-wide plans and 27 per cent had department- or course-level plans.

Colleges identified as 'late adopters' of ICT and e-learning showed the greatest increases in management interventions such as target setting. By contrast, the most e-enabled colleges appeared to make fewer management interventions than in previous years. However, these latter colleges increased levels of access for learners and achieved wider implementation of e-learning. These findings suggest two things. Firstly, college managers in late adopting colleges are beginning to engage with ICT and e-learning. Secondly, at the e-enabled end of the spectrum, ICT and e-learning become increasingly self-sustaining and require less direct management input.

Getting the best out of learning platforms

College intranets and networks continue to be extensively used for learning. Commercial or open-source virtual learning environments (VLEs) continued to be increasingly widely used. In 2006, 82 per cent of colleges used a VLE, compared to 59 per cent in 2003. Not only did use of these VLEs increase across the sector, they were also most widely cited as a college's main learning platform.

Learning platforms are beginning to develop features that address personalisation. Around half of college platforms could associate individual learners with particular courses, and with particular preferences. Just under 20 per cent of platforms could remember where a student has got to in a particular course and to recognise the student's prior learning. Only 6 per cent of colleges said their learning platform outputs to an e-portfolio. These are basic personalisation features, showing that the use of ICT to support personalisation is at an early stage and still has some way to go.

However, the ability of a learning platform to link with a college's MIS is not an outstanding feature of any type of platform. This suggests that in many colleges, student information is gathered by the learning platform, but does not feed into the wider college systems.
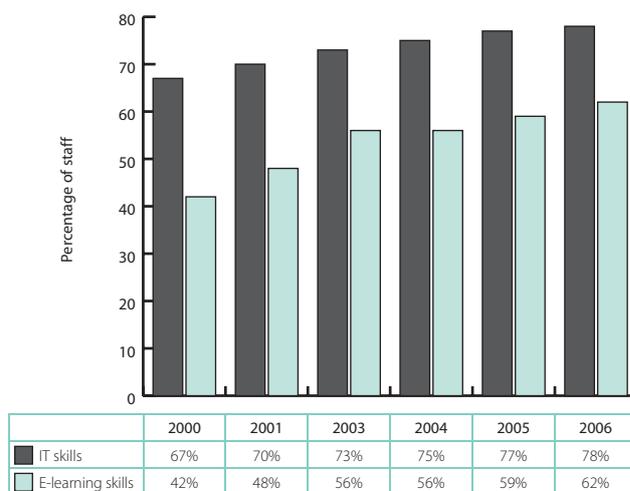
Teaching staff engagement

One internet-connected computer was available for each permanent member of teaching staff in well over half of the colleges surveyed. This was the case in 26 per cent of colleges in 2003, and only 15 per cent in 2001.

The ICT skills of teaching staff again showed a steady improvement. The average number of staff considered to be competent or advanced in their personal use of ICT has grown steadily from 67 per cent 2000 to a level of 78 per cent in 2006. Alongside this, an average of 62 per cent of college staff were reported to be competent or advanced in using ICT with learners. This latter figure was 42 per cent in 2000. However, the gap between those skilled in their personal use of ICT and those skilled in using ICT with learners has remained broadly the same over the past few years.

The combination of adequate staff skills with enthusiasm for e-learning is seen as a key element in embedding ICT and e-learning in any area of the curriculum. The survey asked respondents to give reasons for high and low ICT use in particular curriculum areas. The reasons most frequently given centred on staff enthusiasm and skills. Enthusiasm was cited by 44 per cent as contributing to high use of ICT and e-learning. A lack of confidence or competence with ICT was cited by 38 per cent as a reason for low use.

Figure 3   Teaching staff considered competent and advanced at ICT/e-learning

	2000	2001	2003	2004	2005	2006
IT skills	67%	70%	73%	75%	77%	78%
E-learning skills	42%	48%	56%	56%	59%	62%

A sustainable infrastructure

Colleges have a robust ICT infrastructure. Colleges purchased 80,000 computers in 2006. This would enable the current level of computer stock of FE colleges to be replaced every five years. However, given the current patchy use of ICT across the curriculum, and pressures to personalise learning, this situation may change in future years.

The median ratio of FTE students per internet-enabled computer was 4.8:1. This remains just within the target level of 5:1 set in 1999. A programme of bandwidth upgrades of JANET connections for FE and sixth-form colleges to 4Mbps or 10Mbps had largely taken place by 2006. At the time of the survey, 69 per cent of colleges did not plan to purchase any additional bandwidth. A large number of colleges upgraded their local area networks (LANs) between 2004 and 2005, perhaps to make best use of the new bandwidth upgrades. This improvement continued into 2006. More than 70 per cent colleges use Gigabit Ethernet networks.

Just under half the institutions surveyed (47 per cent) reported that they could not cope with the demand for computers in 1999. This level had fallen to 30 per cent in 2006. Improvements in access to the internet also improved. Some 51 per cent of respondents described access to computers for internet use as easy at any time. This is similar to the 2003 level and an improvement on the previous two years.

By 2006, three-quarters of colleges were in the top two categories of e-enablement. In 2003 only half of colleges were in these categories.

Becta

Millburn Hill Road
Science Park
Coventry CV4 7JJ

Tel: 024 7641 6994
Fax: 024 7641 1418
Email: becta@becta.org.uk
URL: http://www.becta.org.uk