

Improving the impact of learning technologies at work – lessons from businesses and their employees

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March 08.

Prepared for NIACE expert witness panel

Introduction

This paper provides a number of insights into how learning technologies are currently being used by businesses themselves to deliver skills in the workplace, how adult learners respond to learning technologies in the context of work and the lessons that can be learned to improve the impact of learning technologies in the workplace.

The observations are based on the Towards Maturity research from e-skills UK. Research participants included over 200 businesses and organisations and 1000 learners who use learning technologies at work – see appendix 1 for overview of research participant profile and the business impact of e-learning maturity in the workplace.

What are drivers & barriers for employers investing in e-learning?

What is driving the adoption of learning technologies by employers?

On average, we found that 17% of current learning budgets are currently invested by businesses in learning technologies and that this is expected to rise to 30% of total learning budgets by 2010.

The Top 3 services that businesses are offering to their learners are traditional e-learning offerings

- Electronic learning materials
- Online assessment
- Online administration

However, this is followed by 3 uses of learning technology to address informal learning needs

- Access to relevant online resources
- Online access to company expertise
- Online collaboration between learners

Over the next 3 years, the areas predicted by employers for the most growth in next 3 years include:

- Using learning technologies to help address the increased expectation of accountability
 - Online evaluation of business impact (34% expected growth on current use)
- Exploiting collaboration
 - E-tutor support to learners (28% growth)
 - Online collaboration between learners (24% growth)
- Competency Management
 - Needs and skills diagnostics are expected to see a 14% growth.

What are the barriers to adoption in next 3 years?

The top 6 potential barriers cited included cost, people skills and attitude and lack of relevance:

Cost of set-up, development and maintenance	45%
Reluctance by staff to adopt new technology	43%
Lack of knowledge about its potential use and implementation	39%
Lack of skills amongst staff to implement and manage e-learning	35%
Lack of attractive, high-quality e-learning that supports our business goals	35%
e-learning too generic and not sufficiently tailored to our needs	30%

Lack of IT skills was only cited as a potential barrier by 13% of organisations, and access to IT by 9%.

How are Adult learners learning in the workplace?

Organisations mature in their use of e-learning enjoy more business and staff benefits from their e-learning investment ⁱ (see appendix for details). They are also more likely to cite learners (and their line managers) as being the most significant stakeholders in influencing success as they engage in learning and apply new skills.

A more accurate understanding of learner motivation will have an impact on content design, the way we make learning available (time, technology and location), the way we supporting the learner at work, the way that we evaluate learning and the way that we communicate.

Who are our learners?

We have found that e-learning is increasingly used across most roles in an organisation (regardless of technology access). Over 70% are offering technology assisted learning services to administration, customer service, professional grades, middle management and supervisor staff. More mature organisations are more likely to offer learning to those who are traditionally hard to engage: directors, managers and to more junior roles that do not have regular access to PCs roles.

Interestingly, when directors of organisations are learners themselves and model the required behaviour, it has a positive influence on a range of success criteria and behaviours including:

- > Business impact
- > Staff impact
- > Senior manager commitment to learning
- > Overall availability and take up of e-learning.

Those providing learning to technical staff are also more likely to be achieving tangible business impact from their learning.

What do we know about learner behaviour

Howard Hills, one of the Towards Maturity research team, has had a long-standing interest in the role of personality in learning. In his bookⁱⁱ, he outlines the implications of individual preference on the design, implementation and participation with e-learning and presents powerful arguments for those involved in learning design. This is particularly relevant when we consider the roll out of company wide programmes. The one size fits all approach is not always popular.

Our survey of 1000 learners within Towards Maturity provided a number of insights into learner motivations that may influence the messages that we use and how we communicate. Learner confidence, ability to find and access learning at a time convenient to the increased with age as did the learners' perception of management support available to them. However the overall perception of job relevance of e-learning decreased with age.

There were also differences linked to educational level. Learners at both the lower end or higher end with regard to qualifications are more likely to feel empowered and have a feeling of control in their learning than those in the middle. They are also more likely to perceive that e-learning is relevant to their job. (These patterns may reflect general motivational issue across education levels not just attitudes to e-learning.)

The learner's overall ability to manage their own time at work also made a difference to their attitudes to e-learning provision. Equally those who have responsibility for themselves, or are responsible for others rate higher on those dimensions.

So what do learners find useful?

Overall the learners in this study are in agreement that the technology has improved convenience both in terms of where and when they take part in learning. Most learners given the option choose to learn at their desks but we found that they were keen to ask for more choices – to work at home, to download, to work offline, to work in their own time, to work in the company's time. It was clear that once they had a taste of convenience, they wanted more!

They also want more interaction – page turning and bland content is not cutting it! However not all interaction needs to be face to face – 4 out of 5 learners said that they would be willing to use technology to share knowledge with other learners. Perhaps the new opportunities of social software are not so out of reach in the work based e-learning world.

The most popular subjects used by learners in a work context were technical skills, health and safety, company specific learning, communication skills, general IT user and management skills. Just over 10% of our participants also sourced e-learning for their own use outside of work – for similar subjects to this list except that the company specific and health & safety content were replaced by foreign language and professional IT user skills. A number of organisations offered e-learning resources for friends and family – given a potential thirst for knowledge outside of work, this might be worth considering to help engagement.

The list of the most useful forms of learner support was headed by job related assignments (followed by online and printed job aids and related reference). Tutor support was useful but was towards the end of the list!

Generally learners also wanted more visibility of their achievements and recognition, that their e-learning contributed to recognized qualifications as these comments show:

there is no real recognition for completing the e-learning course though it takes just as much time and effort as a classroom session, whereas the latter can be used to enhance one's CV.

However the desire for recognition decreased with age and differing education levels had different needs for recognition, the highest demand for recognition from e-learning was with those having post 18 education qualification and the lowest need for recognition came from those with graduate level.

How do they find out about e-learning?

Despite our best efforts in communication, they are often not enough as this learner highlighted!

I've used e-learning a handful of times, but have had to find out about it on my own. The only time there is official communication is when it's required e-learning by management

Email is still one of the most effective media to engage learners (due to the personalization of the message). Even within organisations with considerable investment in learning technologies, some learners still find it difficult to find out about new materials. They also want a more simplified access to learner and want to know more about pathways through the material. One didn't know that there was an e-learning prerequisite to a course until they turned up.

In line with the Linking learning to business study, we found that Managers and peers were the people most likely to influence learners (with only 10% taking notice of their training department!) – consistent levels of feedback – line managers – over 50% followed by peers (over 20%)

Key implications for the enquiry /evidence gaps

Can technology improve learner prospects in workplace?

Our study shows that mature use of learning technology benefits both learners and the organisation itself. This provides significant opportunities for all learning providers (both publically and privately funded) to improve the impact of their learning solutions (and subsequent engagement with employers) however, the role of learning technologies to deliver business benefits to organisations is rarely studied.

The Towards Maturity project aims to continue work into the field of improving the impact of learning technologies in the workplace.

What changes need to be in place for learners to achieve maximum benefits?

It is clear that effective & appropriate use of learning technologies can add value but ineffective use can also disengage potential learners even further. It is critical that lessons start to be transferred across the private and public sector and across learning provider and learning consumers (businesses using learning technologies directly).

Our study shows that change management and establishing communication channels with learners and learner influencers are as critical for success as the technology platforms and content. However this is an area often neglected in many offerings and should be embedded within workforce development as an imperative for success.

What of the Digital divide – learners within small businesses, the disengaged?

Whilst the Towards Maturity study focused on larger businesses, a number of the findings have lined up with the needs of smaller businesses.

Other studies (such as elearn2work) with small businesses have investigated how learning technologies can engage small businesses by providing more flexible and accessible learning offerings. The findings outline that learning technologies that support business outcomes in informal and creative ways can engage those not accustomed to engaging with tradition learning provision.

Within the FE sector there are also isolated examples of providers using learning technologies to engage small business with skills – further work in this area to disseminate good practice is needed.

Appendix 1 – Overview of Towards Maturity Study

The study was specifically aimed at a target audience of organisations and businesses who had some experience of implementing learning technologies to serve adult learners in the workplace. A survey was delivered on line to both those responsible for implementing e-learning and to learners themselves. See figure 1 for a profile of the research participants.

Figure 1 – Research participant profile

Employer survey:

- 209 organisations participated (with 173 providing useable data)
- Participants came from a wide range of industry sectors including manufacturing, health & social care, finance, communications, education
- All were existing users of e-learning
 - 28% 0-2 years experience
 - 45% with 5 years or more
- Employees were dispersed across a range of single and multisite locations
- Most had in house training capabilities:
 - 85% have dedicated training staff
 - 67% have dedicated e-learning staff

Learner survey:

- 1000 Learners participated in an employee survey
 - 52% male, 48% female
 - Distributed across all ages
 - 67% graduate level or above
 - All were regular computer users

A wide range of subjects was touched on through either multi choice questions or a Likert scale that involved ranking agreement to a statement.

e-learning Maturity

The organisations who participated described their differing experience with e-learning at the time of participating:

The novice	'We know very little about e-learning'	5%
The sporadic user	'Use of e-learning is localised or sporadic (used in some departments or for some courses) '	21%
The Developing user	'We are developing and coordinating our use of e-learning'	35%
The Established user	'e-learning is established across the company and is transforming the way we manage our learning and development'	17%
The Embedded user	'e-learning is thoroughly embedded within the company – we have a learning culture which influences our everyday work '	5%
The Innovator	'We are thought leaders and innovators in the way in which we are using e-learning – prepared to experiment in new areas and with new technologies'	17%

As would be expected, only a minority of the 200 participating organisations was at the extremes of novice or embedded (5%). The majority were in the either **sporadic** users or those **developing** and co-coordinating their use of e-learning or those who were **established** in their use (and starting to see it transform learning within their organisation). We also included a category of **innovator** although we found that 'Innovators' can occur at each stage in this maturity model – what is innovative and experimental in one organisation may be regarded as established or embedded practice in another.

This ranking was useful to identify trends of experience as maturity increased (although the innovator could be found at any of the levels).

Benefits of e-maturity in the workplace

Our study found that as organisations increased in their maturity of implementation, they are more likely to perceive increases in the following areas:

- **Business impact** - the tangible business benefits, the ability to respond to business need and direct application of skills to the job in hand.
- **Staff impact** - the intangible benefit of e-learning in an organisation - including motivation and learning benefits

- **Take up of e-learning** – the extent of both the individual and organisational usage and engagement with e-learning
- **Availability** - the extent of the access to learning opportunities (number of learning opportunities, location, time available)

ⁱ Figures, case study and quotes from ‘Towards Maturity’ e-skills UK research published Feb 2007. Free download at www.towardsmaturity.com

ⁱⁱ Individual preferences in e-learning . Hills