

## Scope

This guide:

- outlines the evaluation approaches used by the JISC Learner Experiences of e-Learning studies
- identifies strategies and techniques for learner-centred evaluation of the experience of e-learning
- synthesises findings about evaluation methods from the Learner Experiences of e-Learning studies
- makes recommendations for further research

## Who this guide is for

This guide is for teachers, evaluators and researchers in higher, further and adult and community education. It may also be of interest to learning technologists and e-learning support staff who are involved in the development of e-learning applications.

## Background

The JISC e-Learning Programme has funded a number of projects with a focus on understanding the learner's perspective on the role of technology in learning, to inform the effective development and use of learning environments, tools and services. The studies include:

- **Learner Scoping study.** This literature review investigated learners' experiences of e-learning and their needs and expectations for the future, and made recommendations for subsequent studies of learners' experiences of e-learning across the post-16 education sector (Sharpe et al., 2005)
- **The Learner Experience of e-Learning (LEX) study.** This study explored the learner's perspective on e-learning by gathering rich data from 55 learner participants from across the post-16 education sector (Creanor et al., 2006)

- **Student Experiences of Technologies (LXP) study.** Conducted in association with four Higher Education Academy subject centres, this study focused on learners' experiences of using technologies for learning, with an emphasis on investigating differences between subject disciplines (Conole et al., 2006)
- **The learner's voice.** Five video case studies from across the post-16 sector illustrate learners' feelings and beliefs about technology and the role it plays in their lives and their learning (JISC, 2006)

Outcomes of these and subsequent projects in Phase 2 of the JISC Learner Experiences of e-Learning theme are being used to inform the development of the next generation of learning tools and services funded through the e-Learning Programme.

These projects used methods which record moments in learners' lives, in their own words, and give a vivid insight into the experiences of the learners as they use technology to support their learning. Due to the nature of the research methods used it is difficult to generalise from the findings. Therefore only themes which emerge clearly from all the studies are reported here.

## Themes and recommendations

The Learner Experiences of e-Learning studies to date suggest a need for further research which uses the following methods:

- Longitudinal studies, since most current research into the learner experience of e-learning takes 'snapshots' of small moments in time
- Comparison of actual use of technologies with expected use (reflected in the course design and/or tutors' expectations), which can investigate the 'underworld' of digital communication among learners

## Recommendations for researchers and course evaluators

### Guide 4

---

- Purposive sampling of learners, such as those in further education, adult and community learning and work-based learning, which are currently under-researched
- Data collection techniques which use guided recall (such as Interview plus) or at-the-time techniques (such as audio logs) to obtain rich data
- Research designs which use a variety of data-collection techniques
- Research which conforms to good, explicit ethical principles

### Shift the focus of e-learning evaluation

The scoping study provides a convincing case for conducting research into e-learners with a rather different focus from that revealed in most of the current literature on e-learning.'

LEX: Methodology report [Mayes, 2006, p.3]

The scoping study literature review indicates that most e-learning research is written from a practitioner's perspective, with a minority placing the learner's voice foremost. Frequently, when learners' voices are heard, methodological weaknesses lead to evaluations eliciting learner 'satisfaction' but failing to gather evidence of the impact of e-learning on the learning experience (Sharpe et al., 2006). This severely limits the understanding of how to design effective tools, environments or learning activities.

Two major gaps identified in data collection methodologies are:

- stories or narratives that capture the diversity of how learners use learning technologies in their formal studies
- attempts to elicit learners' beliefs and intentions
- A methodology capable of filling these gaps should display at least some of the following characteristics; it should:
  - be 'naturalistic' (focusing on informal as well as formal learning)
  - use more than once source of data
  - capture the complexity and authenticity of case studies
  - sample purposively (choosing learners who are characterised by behaviours or qualities of particular relevance)
  - focus on typical e-learning contexts rather than on specific types of activity

- be mixed-mode (e.g. use diaries, observations, interviews, focus groups)
- employ semi-structured interview schedules
- use open-ended methods (allowing unexpected issues to emerge)
- access beliefs, explanations and intentions
- talk with learners about learning

*"The scoping study provides a convincing case for conducting research into e-learners with a rather different focus from that revealed in most of the current literature on e-learning"*

### Eliciting learners' perceptions

Standard interview techniques may fail to adequately elicit learners' understandings of their experiences and strategies for using technologies. Learners may not even associate certain activities with formal learning. The research methods adopted should be designed to help elicit tacit understandings. Two such techniques successfully adopted for the learner experiences studies are:

- **Interview plus**, recommended by the scoping study and adopted by the LEX study. The 'plus' represents some artefact or activity chosen to guide recall or aid thinking aloud during the interview – for example, a diary, observation plus thinking aloud, learner progress files, learners' work, tracking data from a virtual learning environment (VLE). The LEX study found that the interview plus technique is most effective when used within a funnel interview structure. This involves starting the interview with open, broad, holistic questions, narrowing to a more specific focus on examples of technology-enriched learning activities as the interview progresses.

- **Audio logs**, used by the LXP study to gather information about learners' perceptions of and intentions for their use of technologies as soon as possible after they had used the technologies. In the LXP study, a server was set up for students to phone and leave a message. These messages were short descriptions recorded during learning activities about what learners were doing and why. These audio logs could then be interrogated in more depth through follow-up interviews. The audio logs helped address some of the documented problems associated with written diaries, such as diaries frequently being incomplete and being time-consuming to produce.

## Triangulation

Mixed-mode studies provide more trustworthy and persuasive results than those that rely on a single approach. An example is the LXP study, which combined an online survey, audio diaries and follow-up individual interviews.

The LXP survey gathered background information about learners and the way they integrate technology into their learning. Four Higher Education Academy subject centres disseminated the online survey and a high response rate was obtained.

Numerical data from the survey provides a picture of how technology use is distributed across disciplines. The survey included a limited number of free-response items, but coding and analysis still involved considerable effort. Nevertheless the responses yield valuable insights into why learners choose certain technologies and how they perceive their benefits and disadvantages.

Comments made by individual learners during interview can be compared against the survey results to show whether the comments are broadly representative of the sample.

## Sampling and recruitment

Effective purposive sampling and recruitment of participants is fundamental to successful learner experience studies. Some versions of purposive sampling include choosing:

- extreme cases (e.g. investigating SMS messaging by choosing heavy users)
- information-rich cases (e.g. by selecting users of SMS messaging, but not extremely)

- for variation (e.g. ensuring a range of SMS messaging users from non-users to high users)
- on the basis of a criterion (e.g. all those SMS messaging users who also use a blog)

Learners belonging to traditionally disempowered groups are generally difficult to recruit to research focus groups, but may yield particularly interesting experiences.

One fruitful sampling dimension that was adopted for both the LEX and LXP studies was that of the effective e-learner. Definitions of 'effective e-learner' vary, but usually involve notions of success and/or substantial experience in carrying out learning activities in technology-rich environments. Effective e-learners may not have the highest assessed grades, but are likely to have broader experiences to draw on than novices with technology, and are likely to report that technology use has had a positive impact on their learning.

Identifying effective e-learners involves close cooperation with teachers, who may need encouragement to think beyond the obvious categories of successful learner, and may not be in a position to identify effective e-learners at some stages in the study cycle. Possible recruitment strategies include:

- Conduct the research jointly with groups with which the participants are affiliated – frequently these will be teachers and/or course authors
- Make use of researchers' informal networks to gain access to learners
- Use a local contact person to gain access – give assurances to local contacts and answer all their questions promptly and fully
- Send individual letters, followed by telephone calls at two weeks prior to the start date and one day before to confirm participation
- Ensure all correspondence is personalised and that the participant has experiences and insights that will benefit the research study
- Make a point of showing how the research will benefit the community
- Ensure follow-up – allow participants to see the results of the research and the action to be taken as a result of the research
- Recompense participants for time and expenses, such as meals and travel costs

## Recommendations for researchers and course evaluators

### Guide 4

- Offer incentives to participate like small cash tokens of gratitude, meal or book vouchers or prizes to randomly selected participants
- Keep schedules flexible and informed. Interviews need to be conducted when students are actively engaged in their studies yet not overwhelmed by examinations or other high workloads

It should be emphasised that in learner-centred studies as advocated here, 'the learner should be able to expect at least a learning benefit through reflection on their experience' (Sharpe et al., 2005, p.15).

*“the learner should be able to expect at least a learning benefit through reflection on their experience”*

### Ethics

The underpinning ethical principle should be respect for the participant. Active, informed consent should underpin participation. Participants should be given a written information sheet that explains the purpose of the study, what is expected of them and how any data that they provide – including multimedia data – might be analysed (for example, they should be informed if it will be coded for emotions) or used (for example, whether extracts will be published in papers or used at conferences, and whether data will be anonymised). The sheet should include a clear statement that participants have the right to withdraw at any time. It should also include details of who to contact in the event of concern about the conduct of the research; for example, a university ethics committee.

Written consent to participation in the study, including specific consent to each form of data collection and use, should be obtained. A sample consent form used by the LEX study is included in LEX: Methodology report (Mayes, 2006).

### Further information

Outcomes from the Learner Experiences of e-Learning theme [www.jisc.ac.uk/elp\\_learneroutcomes](http://www.jisc.ac.uk/elp_learneroutcomes)

## References

Conole, G., de Laat, M., Dillon, T. and Darby, J. (2006) LXP: Student Experiences of Technologies – Final report  
[www.jisc.ac.uk/media/documents/programmes/elearning\\_pedagogy/lxp%20project%20final%20report%20dec%2006.pdf](http://www.jisc.ac.uk/media/documents/programmes/elearning_pedagogy/lxp%20project%20final%20report%20dec%2006.pdf)

Creanor, L., Trinder, K., Gowan, D. and Howells, C. (2006) LEX: The Learner Experience of e-Learning – Final project report  
[www.jisc.ac.uk/uploaded\\_documents/LEX%20Final%20Report\\_August06.pdf](http://www.jisc.ac.uk/uploaded_documents/LEX%20Final%20Report_August06.pdf)

Mayes, T. (2006) LEX: The Learner Experience of e-Learning – Methodology report  
[www.jisc.ac.uk/media/documents/programmes/elearning\\_pedagogy/lex\\_method\\_final.doc](http://www.jisc.ac.uk/media/documents/programmes/elearning_pedagogy/lex_method_final.doc)

Sharpe, R., Benfield, G., Lessner, E. and De Cicco, E. (2005) Learner Scoping study – Final report  
[www.jisc.ac.uk/uploaded\\_documents/scoping%20study%20final%20report%20v4.1.doc](http://www.jisc.ac.uk/uploaded_documents/scoping%20study%20final%20report%20v4.1.doc)

Sharpe, R., Benfield, G., Roberts, G. and Francis, R. (2006) The undergraduate experience of blended e-learning: a review of UK literature and practice  
[www.heacademy.ac.uk/research/Sharpe\\_Benfield\\_Roberts\\_Francis.pdf](http://www.heacademy.ac.uk/research/Sharpe_Benfield_Roberts_Francis.pdf)