

ECDL for Educators

A formative evaluation of
ICT skills training in context
Executive Summary

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BACKGROUND AND RATIONALE

The government has invested substantially in ICT training for educators recently. Evaluations of the effectiveness of this training suggest that, in some cases, a lack of basic ICT skills was a factor in preventing full participation in the training courses provided. In this context “ECDL for Educators: ICT skills training in context”, developed by Aston Swann, appears timely. This course is a suite of ICT training programmes with exercises and exemplars developed in context for the ICT skills training needs of teachers and others in schools and colleges. The courseware is sold to licensees such as Local Education Authorities and individual schools for their trainers to deliver to their educators.

The courseware is built around the European Computer Driving Licence (ECDL) qualification and is based on the ECDL syllabus. The ECDL syllabus itself is set by the ECDL Foundation Ltd and is an international syllabus. The ECDL qualification comprises seven modular tests taken at accredited Test Centres, which select the tests from a variety of accredited test providers. Training providers select the courseware that they think will most suit the course participants from a variety of accredited training materials. The ECDL for Educators courseware is the only ECDL courseware tailored to the needs of education professionals.

The seven ECDL modules can be studied and tested in any order. They are:

- ❶ Concepts of IT
- ❷ Using the computer and managing files
- ❸ Word processing
- ❹ Spreadsheets
- ❺ Database
- ❻ Presentations
- ❼ Information and communication

Each ECDL module test is either marked by the computer, which gives immediate feedback on candidate’s performance, or marked manually. There is currently a choice of four commercial computer-marked test providers, whose test environments range from simulation to live application testing.

In the UK the courseware is sold to licensees such as Local Education Authorities and individual schools, for their trainers to deliver to their educators. In this context, Aston Swann has been awarded the Quality ICT Service Providers’ Naacemmark Award for ICT Education Resource Development as developers of the ECDL for Educators courseware. Naace is a professional organisation for advancing education through the appropriate use of ICT. Members include teachers, lecturers, consultants, inspectors and other ICT leaders.

Aston Swann commissioned this MirandaNet formative evaluation, with the support of the British Computer Society, to investigate the response of educators to the ECDL for Educators Courseware. The main research questions asked were: What draws educators to the course? How do they respond to it? How relevant is it? What do they gain from it? How does it fit into their professional lives and goals? How does it impact upon their practice?

METHODS

Data was gathered through questionnaires and concept maps given before and after the course, and also through telephone interviews with a selection of participants and trainers. Case studies were used to explore issues that emerged from survey data. Initially one hundred teachers taking the ECDL for Educators programme in two schools and four local education authorities were invited to contribute to the evaluation. A further 30 participants were invited to contribute to the later stages of the evaluation through focus meetings and interviews.

WHAT DRAWS TEACHERS TO THE COURSE?

The fact that the ECDL for Educators courseware is contextualised was a contributory factor in educators’ decisions to take this course. The main reasons that the individual educators gave for doing the training were to increase computer skills and to gain a recognised qualification, rather than to improve classroom practice. Most participants choose to do the ECDL for Educators programme because it is suggested or offered to them by someone or some organisation they know. Only one interviewee spoke of researching available courses and making a positive choice in favour of this programme. However, it is clear from the respondents’ emphasis on the importance of ICT skills for their jobs that the contextualisation adds an important layer which other generic skills courses are not able to offer. Also, from interviews with the licensees, it is clear that they were keen to be part of this pilot because the ICT skills have been contextualised.

Perhaps surprisingly, the course appeals equally to men and women. Educators in mid-career are more likely to be attracted to the ECDL for Educators training programme than those nearer the beginning or end of their teaching career. The course attracts people with higher levels of ICT competence than the researchers expected. Almost two thirds of those taking the course (64%) claimed to have ‘lots’ or ‘in-depth’ experience and a third to have ‘some’ experience, but there were gender differences in this, with 76% of males claiming ‘in-depth’ or ‘lots’ of experience compared to 55% of females.

HOW DO THEY RESPOND TO IT?

Participants were positive about the ECDL for Educators courseware, especially praising the clear step-by-step instructions and the useful tips. All interviewees agreed that the courseware includes all they need to know in order to gain the ECDL qualification, and much more besides.



In interviews, participants also spoke highly of the quality of the tutors provided by their licensees, and their willingness to help them progress. Training delivery by the licensees is quality assured by Aston Swann's Teacher Trainer – Implementation and Support day. This course is not obligatory, but is recommended by Aston Swann as a result of previous licence holders' experiences. The impact of this training could be traced in the fact that nearly all of the participants from schools and two-thirds of the ITT group were 'quite' or 'very satisfied' with their means of training. Training providers were flexible in their approach to the training. Most participants experienced a blended learning approach, with taught sessions to introduce each module, optional workshop sessions in which individual and group support was available, and guided self-study to practice and extend skills. However, interview evidence showed that participants who have successfully completed the ECDL for Educators programme also had good support in school, which appeared to be a significant factor in their success.

The ECDL tests are selected by each Test Centre from a variety of accredited ECDL test providers. The pedagogy that underpins the computer-marked ECDL testing software differs between test providers, ranging from simulation to live application testing. Only two of the four Test providers were sampled in this survey. The evidence from these suggests that some participants found the computer-based tests available to them too inflexible. Educators who did not attend taught sessions or workshops were more likely to encounter problems with these tests. Typically, these were experienced users of ICT who skimmed quickly through the ECDL for Educators courseware to check that they had the required skills. Unfortunately this approach meant that they often missed important information about what was required of them in the tests.

All tutors and, with hindsight, most participants recognised the value of taking practice tests to become familiar with the test environment and requirements. The pedagogy that underpins the computer-marked ECDL testing software differs between test providers, ranging from simulation to live application testing. Further investigation would identify the test environments that best suit educators' needs.

WHAT DO THEY GAIN FROM IT?

Reactions to the ECDL for Educators programme are very positive. Half the participants in this research claim that it made an important contribution to their professional development. All who engaged with the training increased their confidence in using ICT and gained new ICT knowledge, including those who had previously rated their ICT skills and experience highly. At the start of the training, participants' confidence was lowest in spreadsheet and database skills, but it was in these two modules that participants who had completed the programme made the greatest gains. This reflects the more general finding that those whose ICT skills confidence ratings were in the low or mid range of scores at the outset all made good progress and caught up their more confident colleagues, finishing with confidence ratings in the high range by the end of their training. Other findings suggest that this increasing confidence is likely to lead to greater use of ICT in the classroom. Personal benefits are listed as time saved, improved presentation, sharing news and information with friends and family, personal enjoyment and the enthusiasm of pupils.



HOW RELEVANT IS IT?

On the whole the participants found the exercises set in educational contexts to be relevant to them. This was especially true of secondary teachers: about half of the primary teachers in the survey however would have liked more emphasis on creative classroom applications rather than on administrative tasks. Primary teachers also pointed out that the impact of the course on their practice would be greater if graphics, desktop publishing skills and web design were also covered, although they recognised that these elements are not included in the ECDL syllabus. This means that the training does not yet prepare educators for the multimodal communication that computers now offer.

HOW DOES IT FIT INTO THEIR PROFESSIONAL LIVES AND GOALS?

Undertaking the ECDL for Educators programme was considered a worthwhile experience by the overwhelming majority of participants. All those interviewed said that they would recommend the course to colleagues wanting to improve their ICT skills. However, some thought that it might not be suitable as a starting point for those with very low levels of ICT experience and skills: for example, for those who could not yet handle the mouse. In addition, the full programme may not be appropriate for educators wanting to improve their skills in one or two areas but who would not want, or be able, to make the commitment needed to complete all seven modules. Extension modules would also be required for those who wanted to master the more visual and dynamic communication modes.



Fitting the course around the busy lives of teachers is difficult. The flexibility in the programme was valued as it enabled participants and tutors to vary the route through the materials to suit their needs. No particular timing of course sessions proved more effective than any other. After school courses often clashed with school meetings and clubs. Some teachers preferred not to attend daytime courses if they clashed with their teaching of examination classes. Administrative staff sometimes find it more difficult than teachers to obtain daytime release. The key is for participants to be able to plan far enough in advance to avoid clashes with other commitments, or for alternative dates to be made available. However, these do not guarantee success. Ultimately the participant's commitment was the most important factor to their staying the course. The support in the school was also a significant factor. Most of the training providers involved in the research had planned training programmes over an academic year but, for about three-quarters of the final questionnaire respondents, this was not enough time for them to complete all modules and tests successfully. Many participants were unsure about the support that they would have beyond the end of their planned training programme.

HOW DOES THE COURSE IMPACT UPON PRACTICE?

About half the teachers had made progress in the depth and complexity of abstract thinking about the role of computers in their professional and personal lives. This judgement is based on an analysis of their concept maps drawn at the beginning and end of the course. Significantly, many of the teachers found that drawing concept maps as a means of communicating their thinking was challenging. It would seem that this is because of their lack of experience with the visual modes of expression that pupils handle more confidently. New media literacy does not follow automatically, it would appear, from a first acquaintance with the communication opportunities afforded by computers.

On the other hand, the course appears to be fulfilling mainstream functions well in terms of changing practice. More than 80% of questionnaire respondents claimed that they were using or will use their new skills in the classroom. While some claim to use ICT in ways shown within the course, it is also evident from their responses that teachers are adapting what they have learned to suit their teaching intentions and the needs of their pupils. Some tutors played an important role in this by providing practical ideas and opportunities for participants to discuss ways of using ICT in their teaching.

In conclusion, it would appear that the ECDL for Educators programme seems to be providing for the current professional needs of teachers effectively. The extensions that are in the pipeline will provide for the growing need for skills in a wider range of software packages that incorporate visuals, animation and interactivity.

RECOMMENDATIONS

Because this was a formative evaluation, Aston Swann and the BCS have been working on the findings of the Interim Report while the final report was being produced. Therefore, many of the recommendations have already been addressed. Where this is the case, these actions are noted below.

- a) Make the ECDL for Educators courseware easier to use as a source of reference by highlighting information about the skills to be learnt, so that they can more easily be identified within the explanations, examples and exercises.
Action: A matrix mapping skills in the new ECDL for Education – Students' Programme is currently in development.
- b) Further support the existing context and relevance of the programme by providing additional examples and ideas for applying ICT skills in teaching, for example by providing a forum through which tutors and participants could share ideas.
Action: Development of a protected area of the ECDL for Educators web site is ongoing, and aims to be available by Spring 2005 (www.educatorsecdl.com).
- c) Ensure that learners are signposted to the most appropriate qualification for their needs, eg BCS Certificate for IT Users Level 2 incorporating ECDL. Ensure that learners understand the benefits and potential funding implications of such options.
Action: Aston Swann promotes the new BCS IT User Certificates on its web site and in its information materials.
- d) Provide participants with realistic indications of the likely commitment needed to complete the ECDL and explain the alternatives to the full ECDL, eg BCS Certificate for IT Users Level 1, which incorporates three modules of the full ECDL qualification.
Action: These points are addressed in full on the Teacher Training – Implementation and Support Day.
- e) Increasing the range of the ECDL syllabus to include the more visual modes of computer communication
Action: The ECDL Specialised Programme is currently in development and includes Multimedia, Web Publisher and Image Processing. (www.ecdl.com/main/roadmap.htm)

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