



Work Package 8: Quality control and evaluation

Objectives

This work package had the following objectives:

- Critical friend for project identified
- Appropriate content reviewers identified for both information and digital literacy material
- Ongoing project management advice and monitoring given as appropriate by project team member at LSE
- Use of appropriate frameworks where appropriate, including HEA Professional Standards Framework, SCONUL Seven Pillars Model, CORRE framework, ReLo logbook, Creative Commons, deposit guidance for local repositories and JorumOpen
- Evaluation report completed in line with guidance from the JISC OER Synthesis & Evaluation framework

Work Package 8: Outputs

This work package has the following outputs:

- This report on quality control and evaluation issues
- The development of quality criteria for evaluating digital and information literacy resources.

General approaches to open content:

The DELILA project identified a number of quality issues related to OERs used in accredited courses. Many of these may be specific to the project's focus on digital and information literacy. The issues include:

- IL / DL resources frequently contain 3rd party content from screenshots (databases, Google searches etc.). In many cases the DELILA team chose to remove these images and provide a description of the image in its place. The impact of doing this on quality needs to be considered.
- IL resources on some topics might date very quickly when compared to other educational resources. At LSE it would be usual to update some resources every time a session is run – this might be every term or even more frequently. The DELILA team believe this might impact positively on the quality of resources, but mean that processes need to be in place to ensure the repository is kept up to date.
- How can repository software help to manage the updating process? The DELILA team agreed the repository should include a field to specify when the learning object was created and when it should be reviewed again. This could be used to notify the depositor when an item requires checking for updates. We considered realistically whether individuals would do this? It might be time consuming for the person sharing the material in which case some depositors might want to include a link to the most up to date version of their materials if they keep them online on their institutional website.

Roles, rewards and divisions of labour

We considered what would motivate people to deposit their content? Could there be a 'reward system' for people? Repositories should be able to provide statistics to show which authors have the most downloads – but could it indicate who is using the material? This might be similar to citation analysis and metrics that are used to measure research impact – teaching materials could be tracked in a similar way and 'reward' given to teachers whose resources are used the most frequently. Could there be a requirement for those who had downloaded used resources to link back to the original resources? Finally, during the DELILA dissemination work, delegates frequently mentioned that they might use OERs in a way that might make impact difficult to measure. For example, many people said they might look at a resource and use it to inspire their thinking, but then prepare their own material separately. This is different to the model the team originally anticipated whereby users would download a resource and adapt it.

DELILA also considered if the Information Literacy Group or a body such as SEDA or the HEA might play a role in 'rewarding' or recognising the IL materials that are used most frequently by others and have made the biggest impact on teaching?

Finally the team considered if citing and referencing standards might be relevant to the field of OERs– could a standard way of attributing materials be developed to provide a bread crumb trail of use and the development of a resource over time? This might be something similar to versioning for open access research papers.

Developing, managing and sharing OERs

The DELILA team used the CORRE framework to adapt existing resources and convert them into open educational resources. The framework was adapted to produce a spreadsheet or check list for content creators to take them through the process step by step. It has been piloted and used by a range of staff at LSE and Birmingham. It has also been made available via the project website as part of Work Package 3.

Birmingham and LSE decided to develop their repositories differently to host OERs. At LSE a separate installation of Eprints was established to host the content and ensure it was distinct from the research collection in the institutional repository: LSE Research Online. This was a new repository which currently only holds outputs from the DELILA project, although the plan is to populate it further with other learning? resources.

Meanwhile at Birmingham, Epapers is used to share a range of resources used in teaching. The DELILA material forms a small collection within this larger repository. Both have been customised using the Humbox code to make them more suitable for sharing OERs. The differences in approach reflect organisational differences in the way the repositories are currently used at LSE and Birmingham. Birmingham have a larger body of non-research materials they are currently sharing in a separate installation of eprints. Meanwhile LSE have a larger digital library project which is part way through completion, based on Fedora and so a new installation of eprints was set up as a temporary home for the material.

Quality issues

This work package also explored quality issues associated with the release of information literacy resources. It's important to establish how we determined what was suitable and of sufficient quality to be included in the repository. A number of approaches were considered helpful here, including:

- The IL framework was used to identify the suitability of content – which of the 7 pillars does the resource support – if none then is it suitable for inclusion? Similarly the use of the UKPSF and the digital literacy framework helped us to judge the suitability of a resource for conversion. Much of this work was carried out as part of Work Package 2, where a subset of the resources identified in the audit were judged as being in the scope of the project and suitable for conversion to OER.

The team also believed peer review should play a role in determining what resources were included. Therefore the DELILA team recruited IL experts and educational developers to act as peer reviewers. The team also developed criteria for evaluating digital and information literacy materials which have been made available from the project website. The criteria drew on the Kirkpatrick Rugby model of evaluation and were developed in consultation with the RIN Working Group on Information Handling.

When to carry out the quality control?

The DELILA team envisaged that a teacher would self-deposit their teaching materials, but before it was released there would be a 'quality control' check. In practice, largely due to time constraints the resources were added to the repository before peer review was carried out.

The team identified a number of pertinent issues around the peer review process, including:

- Who would do the quality control at LSE / Birmingham?
- What sort of quality control would they do? Reviewing the resource? Or simply reviewing the metadata?
- With LSE's research repository this work is done by library staff – so is this a useful model? Are the staff time and resources available? Are library staff the right people to do this quality control? They could review the metadata but perhaps the IL experts could play a role in assessing the resources
- How will educational developers be involved in the review process? If resources are to be used in teacher training then it is essential that this group are involved in reviewing the materials and commenting on their suitability for use in programmes such as PGCerts. It is suggested that in addition to reviews from library staff and information and digital literacy experts, reviews from educational developers across higher education must be sought.
- Is there a role for accrediting bodies in the review process? The IL group? SEDA? Or the HEA?
- Should reviews be added to the repository using a comments feature of the eprints software? We decided as a trial to add some of the reviews to the repository at Birmingham, to accompany the resources that were released. You can see an example of this here: <http://epapers.bham.ac.uk/811/>

Other quality control issues identified during the DELILA project were related to metadata and discoverability? of resources. These included:

- Tagging and cataloguing of resources needs to be standardised. The tag #infolit is often used to denominate a twitter post on information literacy. A standard tag for Information literacy and digital literacy resources needs to be devised for use in Jorum to aid discovery of these resources. It would also be helpful if information literacy resources indicated which SCONUL pillar was addressed e.g. S7P1, S7P2, S7P4 etc. by a specific resource. This would help those searching for specific types of information literacy resources.
- Tagging or cataloguing would need to indicate which part of the professional standards framework (UKPSF) a resource was useful for using a standard classification or tagging scheme.

Pedagogy and end user issues

The DELILA workshop held in July 2010 was an important way that the project disseminated its work to the wider community and obtained feedback. The day attracted over 60 delegates and served to promote the value of open educational resources as a way of sharing teaching materials in the field of digital and information literacy. It also highlighted the importance of embedding digital and information literacy into HEA accredited courses such as the PGCert run at Birmingham and LSE.

Some of the feedback collected during the event demonstrated the value of the day with 32 evaluation forms being completed by delegates. Everyone who completed a form indicated they were either satisfied or very satisfied with the event. A selection of comments are included below:

Has put OERs on the agenda for me. Will be checking out a few resources mentioned.

This will be useful for me in helping design an IL module for academic staff on how to embed IL into their teaching (a CPD module). Was interested to learning about copyright issue over use of 3rd party material in OERs.

When designing materials will try to bear in mind OER principles and using a CC licence.

...I thought this subject was much more in its infancy than it actually is.

Yes – I'll think more about releasing materials as well as re-using.

Delegates also suggested that a follow up event would be useful and the DELILA team will be approaching the CSG-Information Literacy Group for sponsorship and assistance with organising this event. However, it will be important to encourage educational developers to also attend the event, so a workshop organised in conjunction with SEDA will also be explored. The poster presentation at the SEDA conference in November 2011 will be a good opportunity to discuss this event.

DELILA Workshop: evaluation of resources exercise

Each delegate attending the workshop received a memory stick containing the open educational resources from LSE and Birmingham. This allowed those attending the workshop to access the materials during the event and to take part in an evaluation exercise. Using the criteria developed for evaluating digital and information literacy OERs, participants were asked to select a few of the resources and to complete the forms as far as possible. This exercise revealed that many staff found it difficult to evaluate a learning object unless they had actually used it themselves in practice. It meant that the feasibility of evaluating resources before they are uploaded into a repository is questionable.

Expert reviewers: evaluation of resources

The peer review process did not happen as originally envisaged in the project plan, for a number of reasons. Firstly there was some discussion about the value of peer review unless people had actually used the resources in their own teaching. Comments collected during the DELILA workshop from delegates indicated that unless you actually used a resource in your own teaching some of the criteria we had established were almost impossible to judge. In addition some of the project team believed that if a resource was being used in one institution and could be assigned to one or more aspects of the relevant frameworks, then it was suitable for release.

During the project, five reviewers were identified by the DELILA project team including three librarians involved in information literacy work, and two educational developers. They were each sent a link to the repository at Birmingham and asked to consider one of three scenarios involving planning a teaching session. They were then asked to locate relevant resources in the repository and evaluate these using the criteria developed by the DELILA project. Delays in loading the materials into the repository at LSE meant that only Birmingham resources were evaluated. The team also considered that a considerable level of quality control had already been undertaken as part of work package 2 and work package 4: the conversion to OER process. However external peer review was considered valuable. Completed forms from several reviewers are therefore included in Appendix 1. The reviews have been added to the repository records at Birmingham to facilitate best practice.

Legal issues

The resources adapted and released as part of the DELILA project have no IPR issues and are released under a Creative Commons Attribution ShareAlike licence. This required the removal and in some cases substitution of a wide range of images from the resources, such

as screenshots and ClipArt images. It has arguably led to the resources being more re-usable as institution specific material has largely been removed. It also means that the team are more aware of IPR issues and have changed practice, for example using images licensed under Creative Commons in PowerPoint wherever possible, instead of ClipArt. The Xpert tool developed by University of Nottingham was also valuable and is now being promoted to staff as a way of locating materials such as images licensed under Creative Commons.

The only minor issue associated with the Creative Commons Licence was the Creative Commons tool that worked with Microsoft Office. This is still adding a 2.5 Licence rather than a 3.0 licence.

Technical and hosting issues

Birmingham and LSE have customised the Eprint repository software using code from University of Southampton's Humbox project. The code was supplied to Birmingham who led this phase of the work internally. The code was then made available to LSE who successfully installed it on a new installation of Eprints. The code will be released to the wider community as part of Work Package 5.

Deposit of the resources was undertaken using a metadata spreadsheet to automate the process as far as possible. Again this spreadsheet will be released to the wider community as part of Work Package 6 to ensure sustainability.

It did not prove possible due to a lack of time and resources to explore automated harvesting such as SWORD in the scope of the DELILA project. On reflection this was ambitious and the team are exploring with Jorum how best to deposit their resources to avoid duplication of effort. The intention is to use RSS to allow Jorum to ingest the records in bulk format from the local repositories.

Evaluation pairing with CPD4HE

The DELILA project was paired with a similar project based at UCL, called CPD4HE. This project was part of the OMAC strand and focused on releasing resources used in their PGCert related to digital literacy.

Evaluation involved several joint meetings between the project managers to discuss progress and evaluation issues. The DELILA project manager contributed to a webinar on IPR issues organised by CPD4HE. Similarly the project manager for CPD4HE attended the DELILA workshop held in July 2011 and presented a short paper about the project. The project managers also exchanged a number of reports in draft format, including the Quality and Evaluation reports.

Role of critical friend

Sandra Griffiths was appointed as a critical friend to the DELILA project and was a member of the project Steering Group. She attended the Steering Group meeting in January 2011 and provided valuable input into Work Package 2, 7 and 8. Sandra suggested that worked examples would better illustrate how some of the teaching resources were used in our accredited courses. She also read drafts of the interim project report and various other documents. Sandra suggested a colleague to act as a peer reviewer for our resources and encouraged the team to submit a paper for the All Ireland Society for Higher Education – which was subsequently accepted. Overall she provided useful advice and monitoring for the DELILA project. It was also possible to hold a joint meeting with Sandra Griffiths and the project manager of the CPD4HE project which proved to be extremely useful.

Conclusion

The DELILA project explored a range of quality issues, but also finished largely on time and managed to produce a wealth of outputs. For a small scale project with an extremely small budget, the hard work and dedication of the team cannot be understated. The project has also increased knowledge about the value of OERs to the library and educational development

community, as well as increasing awareness within their own institutions. Finally DELILA has released a significant number of high quality resources to the wider community which evidence to date suggests will be useful.

In summary DELILA raised a number of issues related to quality control and evaluation which JISC and the HEA might wish to consider.

As the DELILA project was relatively limited in terms of resources, there are also a number of areas that could be explored in follow on work.

- Further explore the peer review process and how this works in practice in different communities. Consider how professional bodies might be able to work to support the quality process.

Appendix 1: Peer review of DELILA resources by 2 reviewers



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DELILA Criteria for evaluating information literacy and digital literacy OERs

The following criteria were devised in conjunction with the RIN Information Handling group who were drafting criteria for evaluating information literacy training. The criteria have been adapted to evaluate OERs. The form includes prompts under each of the headings. The Kirkpatrick model of evaluation informed the structure of evaluation criteria into three key areas which relate to the first three levels of impact outlined by Kirkpatrick in relation to training events: immediate reaction; perceived learning and behavioural change. Specific questions and notes for the evaluator are included under each section.

Please note any thoughts or comments in the form below to help us evaluate and improve our OERs. Please fill out part 1, and parts 2 and 3 if you are familiar with the frameworks mentioned.

Name of OER: Doing a literature search

Unique number of OER: 811

1. Immediate reaction to the resources (in terms of accessibility, layout, intuitiveness, coherence as a package)

My immediate reaction to the resources was positive, it's always great to see people sharing teaching and learning materials.

- a) *Is the resource specific and practical?* If OERs are to be useful by others, it is important that they should be focused, well-defined and geared very much to meeting practical objectives, with a clear rationale.

The particular resource reviewed is extremely practical and focused.

- b) *Reusability: can the resource be adapted to suit others needs?* It is important that open educational resources can be adapted by others. The reviewer is asked to comment on any aspect of the resource that affects how others can re-use it including the format, the content, the inclusion of any images or institutional specific information.

The resource is certainly reusable once you have access to the software, in this case Camtasia. The demonstration/tutorial is local to the University of Birmingham so some elements would have to be re-done to meet the needs of other institutions. I didn't unzip all files, I'm assuming the Search Strategy Worksheet can be downloaded as a separate word file, if not, then this would be really useful.

- c) *Is the resource accessible and structured logically?* It is important to ensure resources are suitable for students with visual impairment and other disabilities. Pay attention to whether images have ALT tags and if heading levels are used to structure the resource.

Yes, the resource is accessible and well structured.

2. What will students be able to learn?

- a) *Relevancy: is the resource relevant?* As a starting point, it is crucial to ensure that the OER is actually relevant. It is appropriate to check that possible examples do relate to development of skills in, and knowledge and understanding of information and / or digital literacy, for which an appropriate definition therefore has to be agreed.

Yes the resource is relevant and will support the development of student skills in terms of their ability to effectively search the literature online using library databases and search tools.

- b) *Does the resource clearly reflect competencies in the UK PSF and SCONUL Seven Pillars and / or the FutureLab Model of Digital Literacy?* The UK PSF and the Seven Pillars of Information Literacy provide ready-made and nationally-recognised tools for ascertaining the relevance of training initiatives. Good practice examples should therefore demonstrate how competencies in the UKPSF and Seven Pillars are addressed on the ground.

I'm personally not familiar with the UK PSF, however the resource clearly reflects competencies in the SCONUL Seven Pillars of Information Literacy.

- c) *Is the resource based on need?* RIN's *Mind the Skills Gap* report suggested that "there appears to be little training needs assessment work being conducted in relation to training in information methodologies and tools."¹ The report recognised the difficulties in evaluating need. Nevertheless, the extent to which this is assessed or analysed prior to the formulation of training initiatives could be an indicator of effectiveness.

From my experience of teaching information literacy and working with academic staff and students, there is a need for support in this area (effective literature searching).

- d) *Does the resource reflect demand?* In this instance, demand may be equated with the take-up of the resource and popularity, along perhaps with an indication of the range of people (disciplinary areas, career stages...) who have used it.

¹ See <http://www.rin.ac.uk/mind-skills-gap>, section 2.7.3

3. How will resources impact on students' skills development in information and digital literacy and how could these resources be integrated into existing courses?

Resources like this can be integrated into courses given by librarians or academic staff. They can be used in face-to-face classes or made available via course VLE pages etc for self-paced learning purposes.



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Please note any thoughts or comments in the form below to help us evaluate and improve our OERs. Please fill out part 1, and parts 2 and 3 if you are familiar with the frameworks mentioned.

Name of OER: Preparing and Quoting References Using the Harvard System

Unique number of OER: 819

4. Immediate reaction to the resources (in terms of accessibility, layout, intuitiveness, coherence as a package)

- a) *Is the resource specific and practical?* If OERs are to be useful by others, it is important that they should be focused, well-defined and geared very much to meeting practical objectives, with a clear rationale.

Resource is very clearly presented and very comprehensive. It full addresses its purpose as a guide on the subject. The only suggestion I have is that the electronic resources section be updated to include social networking sources such as blogs, Tweets and podcasts.

- b) *Reusability: can the resource be adapted to suit others needs?* It is important that open educational resources can be adapted by others. The reviewer is asked to comment on any aspect of the resource that affects how others can re-use it including the format, the content, the inclusion of any images or institutional specific information.

Resource can be very easily adapted by swapping examples to suit interpretation of Harvard style at your institution.

- c) *Is the resource accessible and structured logically?* It is important to ensure resources are suitable for students with visual impairment and other disabilities. Pay attention to whether images have ALT tags and if heading levels are used to structure the resource.

Yes. Perhaps a user with a visual impairment would require an audio version or a large print version if being presented the guide in class. One other picky comment is that the title uses Times Roman font whereas sans serif fonts are recommended for accessibility.

5. What will students be able to learn?

- a) *Relevancy: is the resource relevant?* As a starting point, it is crucial to ensure that the OER is actually relevant. It is appropriate to check that possible examples do relate to development of skills in, and knowledge and understanding of information and / or digital literacy, for which an appropriate definition therefore has to be agreed.

Referencing is a key IL related skill, clearly linked to 7 seven pillars. The resource is excellent as a guide to accompany other class materials or something to point to for further reference at the end. I'm not sure how easy it would be for students to actually use it in a teaching session due to its length but having said that, sections could be referred to. Perhaps a cut down version presenting key points which references this more comprehensive guide would be helpful.

- b) *Does the resource clearly reflect competencies in the UK PSF and SCONUL Seven Pillars and / or the FutureLab Model of Digital Literacy?* The UK PSF and the Seven Pillars of Information Literacy provide ready-made and nationally-recognised tools for ascertaining the relevance of training initiatives. Good practice examples should therefore demonstrate how competencies in the UKPSF and Seven Pillars are addressed on the ground.

Address item 2 of the professional values in the PSF and the Manage & Present Pillars

- c) *Is the resource based on need?* RIN's *Mind the Skills Gap* report suggested that "there appears to be little training needs assessment work being conducted in relation to training in information methodologies and tools."² The report recognised the difficulties in evaluating need. Nevertheless, the extent to which this is assessed or analysed prior to the formulation of training initiatives could be an indicator of effectiveness.

See above

² See <http://www.rin.ac.uk/mind-skills-gap>, section 2.7.3

- d) *Does the resource reflect demand?* In this instance, demand may be equated with the take-up of the resource and popularity, along perhaps with an indication of the range of people (disciplinary areas, career stages...) who have used it.

We have a similar guide at Cardiff which is enormously popular. It's used as a guide in the library and in teaching sessions. It's been used in training sessions with PGCE students.

6. How will resources impact on students' skills development in information and digital literacy and how could these resources be integrated into existing courses?

- a) *Has the resource been effective?* Effectiveness may be gauged by the feedback and/or evaluation received from training recipients; and by the mechanisms put in place by institutions to analyse and act on such feedback.

Not evaluated in practice

- b) *Has the resource been beneficial?* Benefits from training initiatives may well be difficult to identify. *Mind the Skills Gap* suggested that there is little evidence of systematic evaluation of information training provision³. However, the good practice examples that RIN has collated to date suggest that trainers are often able to point at least to some benefits if prompted to do so. The Impact Framework developed by Vitae's Impact and Evaluation Group (formerly the Rugby Team)⁴ may help trainers to define the benefits of their services in a way that would demonstrate good practice.

- c) *How can the resource be integrated into existing courses?* Is it clear how the resource meets the UK PSF and other standards and can fit with existing training programmes?

It could be incorporated into referencing sessions for PGCE students as we have done here. I'm not aware that our in-house lecturers' teacher training course (PCUTL) covers referencing but this may be the case in other Universities. Lecturers on such courses could also re-use the resource with their students.

³ See <http://www.rin.ac.uk/mind-skills-gap>, section 2.9.1

⁴ See <http://www.vitae.ac.uk/policy-practice/1418/Rugby-Team-activities.html>

