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JISC Final Report

JISC Reproduce Programme: ReFORM Project Final Report

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Edge Hill's ReFORM Project is one of 20 JISC-funded Projects: part of the RePRODUCE Programme (*Re-Purposing & Re-use of Digital University-Level Content and Evaluation*).⁽¹⁾ Many people have been influential throughout the project, and as such, this is not a definitive list of acknowledgements:

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Executive Summary

Edge Hill's commitment to widening participation and inclusion has, over the last decade, seen a year on year increase in the numbers of students presenting with Dyslexia and other specific learning difficulties (SpLDs). With Dyslexic students forming the largest proportion of all students with disabilities in HE, there is a constantly growing need for appropriate learning support. The ReFORM Project complements the University's mission to provide a '*high quality inclusive learning experience*'⁽¹⁾ and is in full alignment with key objectives in its Learning and Teaching Strategy which focus on staff development, student support and the potential offered by new technologies.

ReFORM redeveloped a dormant 15 credit Professional development module principally aimed at support staff working within the Higher and Further Education sectors but also highly relevant to classroom teachers, teaching assistants and school administrators. The module is led by Learning Services, a central service responsible for the provision of the Dyslexia Support Service within the University. Learning Services also provides a centralised service for e-learning support, and has nurtured relationships over time with other services and academic areas.

The project has identified, reused and/or repurposed learning materials (drawn from Jorum and other credible sector sources) related to themes which are germane to learning support, such as writing, reading and memory, and (providing materials to bridge a current gap) the generation of new multimedia objects which focus on dyslexic learners' narratives relating to such themes. Initial scoping of the subject area when compiling the bid for funding led us to believe that it would be rich in material for reuse. However, we have found that there is, as yet, no critical mass of content in the field of dyslexia support for us to draw upon. A positive outcome of this project is that we have been able to produce open content in this important niche area. The development of the module has involved participation and consultation from a variety of specialists, as depicted in the SOLSTICE notion of 'New Academic Teams', in particular project managers, subject specialists, learning technologists, module leaders, copyright and IPR specialists, and staff and students with Dyslexia and other SpLDs.

Our experiences in locating and obtaining clearance for reuse and repurposing of existing learning content have provided us with an invaluable insight into the importance of planning for potential reuse in the developmental stages of learning objects. Working as a 'New Academic team', using the SOLSTICE model⁽³⁾, we have reflected upon a 'blurring' of roles within these developmental stages, whereby curriculum design becomes a shared task, and the roles of the learning technologist and librarian extend to content, evaluation and copyright and IPR advice. We have recognised the potential need for 'joined-up' eLearning Professional Development (ePD) across the institution in order to raise awareness of copyright and IPR and skills issues such as search, retrieval and evaluation of materials for reuse. For reusable and openly available resources to be the future for scalable and sustainable e-learning within Edge Hill University, then a clear infrastructure for ePD, Copyright and quality assurance must be in place.

We were aware at the outset of this project that our experience of the *process* was going to be of equal value to the *output* and this has indeed been the case. A key outcome has been the realisation that despite good quality support and guidelines available on managing the copyright clearance process (Casper) and in staff development around reuse of learning objects (X4L⁽⁴⁾) designing a curriculum with mostly reused and repurposed learning objects can be a 'messy', time-consuming and iterative process. This was certainly the experience of the team at the mid-way point of the Project.

As we come to the end of the ReFORM Project, however, the team have experienced a paradigm shift in working practices – working in a non-hierarchical, multi-professional team whose development in early stages mirrored the 'messy' design process but evolved into an efficient, collaborative unit, experiencing a blurring of roles and a sharing of expertise. Our aim is for the outcomes of this project to be regarded as the first phase of a longer-term shift towards a culture of sharing and reuse as a means of scaling and sustaining diffusion of elearning throughout the University. We still have questions about the process of content creation that remain unanswered: these may/will involve an interesting debate about loss of autonomy/ sole ownership of the curriculum design process by academic colleagues as a result of the 'flattening' effect of the discursive and iterative process of content creation.

Section 1: Background

1.1 The sharing and reuse agenda

Edge Hill University is one of 20 institutions funded by the RePRODUCE Programme to test perceptions of reusability in a real-world setting. The projects were funded to develop, deliver and quality assure technology enhanced courses using at least 50% of reused and repurposed learning materials sourced externally to their institution. The primary aim of the RePRODUCE Programme is to inform change in the sector through enhanced capacity, knowledge and skills around the re-use and re-purposing of learning and teaching content.

Open Educational Resources (OER) are increasingly being heralded as the future of e-learning for issues relating to scalability and sustainability^(5,6). Many assumptions are made about the potential for reusing and/or repurposing existing learning materials to save staff time and overheads. In seeking to test these assumptions, the RePRODUCE Programme builds on earlier JISC work around the development of a national repository for learning objects – Jorum, which aims to “*collect and share learning and teaching materials, allowing their reuse and repurposing, and standing as a national statement of the importance of creating interoperable, sustainable materials*”⁽⁷⁾.

Addressing the various issues around reusing and repurposing existing content is a key area for the future work of the JISC e-Learning Programme⁽⁸⁾. RePRODUCE aligns with a number of its guiding principles⁽⁹⁾, most notably:

Sharing - Sharing of all knowledge and learning will be promoted so that, where possible, outcomes are portable and not specific to one institution or context.

Sustainability – Programmes will encourage outputs to be sustainable, working with services and external agencies, as appropriate, to achieve this.

1.2 Sharing and reuse of content at Edge Hill University prior to the ReFORM project

Prior to the start of the ReFORM project, the University had introduced frameworks to enable and support sharing of modules across its three Faculties. However, this had not resulted in any discernible trend towards the sharing of teaching and learning materials. There was no vehicle or tool within the University to facilitate the sharing of such materials.

There was a widespread lack of awareness with regard to matters of copyright and Intellectual Property Rights (IPR) amongst staff. Pockets of expertise existed within the Library (for issues of copyright concerning printed and electronic books, journals, newspapers and film/TV media) and in the Department of Research and Knowledge Transfer (IPR in published research outputs). The University did not have a formal IPR/Copyright Policy.

1.3 The module chosen for redevelopment

Edge Hill's commitment to widening participation and inclusion has, over the last decade, seen a year on year increase in the numbers of students presenting with Dyslexia and other SpLDs. With Dyslexic students forming the largest proportion of all students with disabilities in HE, there is a constantly growing need for appropriate learning support.

The ReFORM project redeveloped a dormant 15 credit Professional development module into a 30 credit module entitled- *CPD3767: Dyslexia and Specific Learning Difficulties (SpLD) in Higher Education – Support Issues*. This module was chosen for its potential to engage with a wide range of stakeholder groups and address the shortage of dedicated training in this field. The premise of this module is that in order for learning support to be student-centred and needs driven, practitioners require a thorough understanding of dyslexia/SpLD, and how this 'condition' impacts on adult learners in Higher Education. The module had been validated to run using a mixture of face-to-face and online delivery.

The project complements the University's mission to provide a '*high quality inclusive learning experience*' and is in full alignment with key objectives in its Learning and Teaching Strategy which focus on staff development, inclusion and accessibility, student support and the potential offered by new technologies.

Section 2: Aims and Objectives

The stated aims and objectives of the ReFORM Project have remained largely unchanged from the original proposal. These were:

Aims

Redevelop an existing Professional Development 10 week, 15 credit, level 6 module, *CPD304: Dyslexia and Specific Learning Difficulties (SpLD) in Higher Education – Support Issues*.

Objectives

1. To develop an improved understanding of the potential for reuse of learning objects (RLOs) at practitioner level
2. To learn from the process what constitutes effective practice in creation, design and use of learning objects: distillation and dissemination from this experience internally and externally
3. To develop an improved understanding of the workflows underpinning the design, development and reuse of learning objects
4. To successfully deliver CPD 3767 (renumbered from CPD304)
5. To raise the profile of reusable learning objects among key stakeholder groups within the University and its partners
6. The deposit of all RLOs in Jorum

Objectives 1, 2, 3, 5 & 6 align with the outcomes of the JISC e-Learning Programme, in that they/we aim to improve capacity, knowledge, skills and understanding of the potential of ICT to '*support learning and teaching, especially lifelong, workplace and flexible learning*', through the development and reuse of RLO/OER ⁽¹⁰⁾.

Whilst not stated as an aim at the outset, the project also provided an opportunity to obtain an improved understanding of the strategic implications of the potential for reuse. This was timely in the light of an institutional initiative to implement in the same academic year a 'baseline' or minimum entitlement of Technology Enhanced Learning for all students. This initiative would impose a huge cultural shift from the small but growing good practice around elearning to all teaching staff requiring a presence in the VLE. As well as strategies required for staff development and support, strategic thinking is required to ensure that the 'baseline' VLE model evolves into a scalable 'enhancement' model of supported online learning.

Section 3: Methodology

The project approach consisted of a number of inter-related activities identified at the start with regard to the selection and use of learning objects:

Strategy

- A systematic approach following curriculum design principles as described within the University's Quality Handbook
- Multi-professional approach utilising existing expertise from across the University: academic staff, Academic Quality Unit, SOLSTICE, academic librarians, and learning technologists.

Issues to be addressed

- IPR: Edge Hill and externally sourced materials
- Meta-tagging to enable wider use and re-use of learning objects
- Future capacity-building

Scope and boundaries

- CPD3767 sits within the suite of programmes delivered within the umbrella of Continuing Professional Development (CPD) and specifically within the Professional Development in Education portfolio.

- The revamped module, which will be included in the Faculty’s extensive traditional and virtual marketing and recruitment campaigns, is part of a suite of modules leading to the Edge Hill award of the Certificate of Professional Development in Inclusive Learning Support in HE (Dyslexia).
- The project will follow institutional procedures in respect of recruitment, registration, delivery, assessment and review.
- Learning objects from the module will be available to the wider sector along with dissemination of the processes and lessons learned. The module in its entirety will not be available other than through normal processes of recruitment.

Critical success factors

- Assuring pedagogic quality by drawing upon existing guidelines to establish design processes to mitigate risk to pedagogic quality of content
- Resolving IPR issues within project timescale and budgets
- Sourcing suitable content for reuse
- Capturing process knowledge through use of reflective tools e.g. project blog, documentation and guidance for wider use

Stakeholder engagement

It was implicit that JISC and its partners would feature as key stakeholders

Stakeholder (Internal)	Interest / stake	Importance
Learning Technologists	Developer	High
SpLD expert and practitioner	Developer and Module leader	High
SpLD Advisers	Expert consultants	High
Academic Librarians	Resource discovery	High
Students	Learners	Medium
Academic Quality Unit	Administrators	High
SOLSTICE	E-learning strategy	High
Project Steering Group	Project monitoring and advice	Medium
SOLSTICE Fellows	Champions	Medium
Faculty of Education CPD Programme team	Teaching & Learning monitoring and advice	Medium
Finance	Budget monitoring	High
Research & Knowledge Transfer Department	University profile	Low
Stakeholder (External)	Interest / stake	Importance
North West Academic Libraries (NoWAL)	Staff development	Medium
JORUM	National repository of learning objects	High

Project Management

The SOLSTICE notion of the ‘New Academic Team’ was critical to our project to ensure input was gathered from a variety of specialists. Governance and day-to-day management was achieved as follows:

- Steering Group meetings to oversee the project and monitor progress.
- Regular team meetings scheduled throughout the lifespan of the project to monitor, review and address the various issues relating to curriculum design, learning object creation and reuse, marketing, etc.
- Smaller meetings between various team members were ongoing in order for the module to be developed in time for February intake e.g.
 - Module Coordinator - Learning Technologist;
 - Learning Technologist – IPR/Copyright specialist; etc.
- Creation of a section in the institutional VLE (Blackboard) as a project content management system and home of the team’s reflective journals.

- Participation in the wider RePRODUCE Programme activities and communication channels e.g. Google Groups allowed tips and good practice to be shared between the RePRODUCE projects.

We aimed to produce content that has the widest application and to this end, we have ensured that it conforms to various standards e.g. interoperability, accessibility, IMS, etc. The range of skills contained within our New Academic Team approach ensured we could resolve technical, subject, academic, and copyright issues. Nevertheless, various resources proved invaluable including W3C Web Content and Accessibility Guidelines (WCAG), X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey) and X4L repurposing guidelines (Peter Douglas).

Project evaluation

To evaluate the RLOs created for CPD3767 prior to going 'live' with the module, we used two methods:

- To ensure we met the various standards mentioned above, we used the evaluation tool template provided by the Programme team. The quality management evaluation tool (**Appendix 1**) describes the technical and accessibility standards, open licensing, quality assurance achieved.
- To ensure that the module content was relevant in terms of subject, pedagogic approach, audience and level we initiated a process of peer review using the institutional peer review template (**Appendix 2**).

To evaluate the project processes overall and their impact on the project team we have drawn upon evidence obtained from primary sources such as notes of meetings, reports and correspondence, reflections of team members and the external-facing blog.

The module CPD3767 is subject to the institutional quality management procedures around the obtaining of module evaluation from students, assessment conventions and submission to Programme and Faculty Boards.

Section 4: Implementation

The project can be viewed as three distinct phased with activities within the work packages designated as either phase 1 (development phase), phase 2 (delivery phase) or phase 3 (evaluation phase). Phases 2 and 3 are still under way.

Phase 1: Development

Module selection

The aim of the project was to redevelop an existing Professional Development 10 week, 15 credit, level 6 module, *CPD304: Dyslexia and Specific Learning Difficulties (SpLD) in Higher Education – Support Issues*. The premise of this module is that in order for learning support to be student-centred and needs driven, practitioners require a thorough understanding of dyslexia/SpLD, and how this 'condition' impacts on adult learners in Higher Education. To this end, it fulfils some of the key principles behind the Leitch Review⁽¹¹⁾ to provide highly skilled workforces with development opportunities, and fully aligns with the QAA's position on systematic enhancement of the quality of the student experience.

Whilst CPD304 was managed and taught by Learning Services, its home for quality management purposes was with Professional Development in the Faculty of Education. As it had been dormant for about 3 years, it was necessary to revalidate the module to bring it into line with current practice in the Faculty. This required the team to navigate the quality management processes of the Faculty. Our inexperience in this area resulted in the revalidation event only taking place in November 2008 and the module start date put back to 27 January 2008.

Team formation and approaches

The development of the module has involved participation and consultation from a variety of specialists, as depicted in the SOLSTICE notion of 'New Academic Teams'; in particular, project managers, subject specialists, learning technologists, module leaders, copyright and IPR specialists, and staff and students with Dyslexia and other SpLDs. This 'New Academic Team' approach has developed a module that is 'Dyslexia friendly', rich in accessible content and media, catering to various learning preferences. Engagement with internal peer review processes (both formal and informal) and dissemination with stakeholders have generated interest in the materials created which it has been acknowledged model good practice in terms of accessibility in general and for learners with dyslexia/SpLDs in particular.

The multi-professional team comprised the module tutor, two learning technologists, the SOLSTICE CETL Manager and the Dean of Learning Services/Director of SOLSTICE (these latter two also being academic librarians). The project activities were described by the project plan and associated workpackages, however, the team chose to operate in a 'flat', non-hierarchical, collaborative approach to the production of the project plan and workpackages as well as the day to day management of the project. Regular meetings were held and decisions made through discussion and consensus. Frequent meetings were frontloaded at the beginning of the project to give the team time to plan and gel.

Team roles emerged largely through negotiation and saw one technologist develop expert skills in locating and evaluating external content, obtaining rights clearance for external material likely to be suitable for reuse and taking responsibility for the assignment of rights to our own material. The other technologist worked closely with the module tutor in repurposing content and creating the learning environment using the technique of 'storyboarding'⁽¹²⁾ the module design to provide the context within which learning activities, resources and teaching and learning content would be embedded within the VLE. The SOLSTICE Manager (and librarian) adopted the roles of resource locator and evaluator, project 'scribe' and module administrator; negotiating the quality assurance and registry processes of the Faculty of Education in which the module was to be located. The Dean of Learning Services/SOLSTICE Director attended meetings in the capacity of 'critical friend' and with overall responsibility for the project and its budget.

Content selection, acquisition and re-development

The concept of what constitutes an RLO is seemingly fluid and the literature offered no commonly agreed definition of the term. As the JISC RePRODUCE Programme allowed individual projects to develop their own understandings of the term, our ReFORM Project adopted Wiley's⁽¹³⁾ definition of an RLO as 'any digital resource that can be reused to support learning'. With such a broad definition, we found it helpful to identify the key attributes of RLO's and to this end, adapted Le Cornu and Pears principle criteria⁽¹⁴⁾ to produce the following list:

- 'RLOs should be 'stand alone' in that they should not depend on or refer to other material
- They are reusable in whatever way we chose to interpret that term
- Accompanying metadata should also describe the pedagogic intentions of the designer in terms of the purpose, audience and form to which the RLO was to be put

We identified three quite different types of external content that we would find of value:

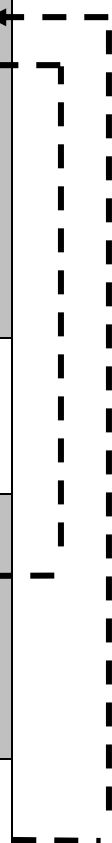
- Material about aspects of dyslexia/SpLDs and related specifically to the module aims and outcomes
- What we described as structural content e.g. open source codes or formats that would provide a 'surround' for module content
- What we described as process content e.g. support and guidance materials that we might need to inform our activities e.g. resources provided by TechDis⁽¹⁵⁾ on creating accessible content or by X4L on staff development in RLOs

We agreed that wherever possible that external content would be repurposed rather than simply reused. We would only use links to external dynamic content when there was no other way of gaining access to it e.g. BBC material as we wished to place all module content within a dyslexic 'friendly' template in our VLE. The aim was to demonstrate good practice in producing accessible teaching and learning materials for dyslexic learners. The collaborative team approach managed to avoid a

production-line system of locating content with a process emerging from key conversations between team members. The following framework is our attempt to produce a description of the process which in reality was far more iterative.

Content Selection Framework

	Sequence	Key conversations	Outcomes
1	Review existing content and identify gaps in module	Map out module structure to identify sequencing/existing content and missing content	Story boards illustrating module structure and sequence
2	Agree IPR of module content	Agree position on preferred form of CC license(s) to be attached to module content Agree approach towards obtaining approval for use of content from individuals who may hold 3 rd part rights	Draft licenses for owners of external content Consent forms for 3 rd party rights holders
3	Establish externally sourced content requirements and initial criteria for selection	Establish context/type/scope of external information/content needs:	Clear understanding of which types of content are required: <ul style="list-style-type: none"> ▪ Module content (subject material) ▪ Structural content (code/format) in which other content could be embedded ▪ Process content (support & guidance materials)
4	Construct and apply a search strategy	Identify range of search terms and list of relevant collections/repositories/databases etc to search	Framework to enable systematic approach to searching for content
5	Review/evaluate found content	Content evaluated in terms of: <ul style="list-style-type: none"> ▪ Relevance ▪ Potential in terms of rights clearance ▪ Potential of format for reuse/repurposing 	Decision taken to either: <p>Reject (return to the process at 3 and continue search if more content is needed)</p> <p>Proceed (continue to 6 below)</p>
6	Pursue rights clearance of external content	Contact rights owner for permission to reuse content Consult CASPER for guidance if appropriate	Three possible outcomes: <p>Consent not given – reject (return to the process at 3 and continue search if more content is needed)</p> <p>Consent not given but potential to deep link to dynamic content – proceed</p> <p>Approval given – proceed to reuse/repurposing of content</p>



Phase 2: Delivery phase

Whilst the module was developed within the time frame set out in the original project plan work package, commencement of CPD3767 was delayed until 27 January 2009 as a result of the team's inexperience in navigating the university quality processes. The module has now begun and we are in the process of obtaining feedback from participants on their experience of teaching and learning using reused and repurposed materials.

The module is being delivered over ten weeks as a blend of 40% face to face teaching and 60% online activity. Twenty students have been recruited to the module. The majority of student applications demonstrated significant prior knowledge and experience of supporting learners with dyslexia.

Phase 3: Evaluation phase

Evaluation activity has been undertaken throughout the project.

Evaluation of team formation and approaches

An evaluation undertaken as part of the overall evaluation plan for the RePRODUCE Programme, required the team to capture individual and collective reflections on their experience. The team also maintained individual blogs and an external-facing blog to capture experiences. These activities have provided thick descriptions of the lived experience of participating in this multi-professional team and as a result, three pivotal, interlinked and *team shaping* factors have been identified:

Team roles: a clear understanding of team roles by each member about what is expected of them was deemed absolutely crucial for effective team collaboration. Time devoted at the start to defining the project and sharing perspectives, provided space for the team to renegotiate individual team roles.

Reciprocity: the success of this multi-professional partnership greatly relied on notions of reciprocity; a shared desire and concern around giving 'something' of value to the team effort. For instance, the Learning Technologist and module tutor would often work intensively on 'tweaking' the module rather than 'leaving one or the other to it'.

Communication: the study also found that strong social skills were absolutely crucial in the success of team communication, as was the use of regular, informal meetings for discussing, disagreeing, reflecting and agreeing team actions. The use of project blogs (both personal and public) proved to be a highly successful tool for facilitating communication, ensuring processes were recorded and transparent, and capturing personal reflections on what it felt like to be part of that team.

Our reflections on the multi-professional approach have provided us with an insight into the challenges and benefits of operating in such a team and concluded that learning in action has also allowed us to develop appropriate skills in a way that is meaningful and productive. What also emerges from the team reflections are that working and learning in a multi-professional team is perceived as enjoyable, creative and productive of an outcome that is better than any that can be achieved individually.

One caveat, however, is that this 'flattening' or democratization of the curriculum design process has resulted in this case at least, in a loss of autonomy, or sole ownership of the curriculum design process by the module tutor. Whilst it is the view of this project team that it has added to the team experience and the value of content creation, it will be interesting to gather reflections from other projects as well as academic colleagues on their experiences and perceptions of working in new academic teams.

Content selection, acquisition and re-development

In an ideal world, the process would look something like the content/learning cycle diagram worked through at the event held on 8 October 2008 (although from our previous experience of elearning design using the rapid prototyping model⁽¹⁶⁾ we see less of a disconnect between curriculum design and content creation). We have not, however, fully experienced the *learning cycle* aspect of the process due to the timing of our module timetable. Like many diagrammatic representations of processes, however, the lifecycle model suggests that the process of content creation, use and reuse is linear and straightforward whereas in reality it is iterative and 'messy' as is often said of the cyclical model used to depict Action Research (which is experienced as equally iterative and messy).

The content/learning cycle also implies that content is created as a block whereas our lived experience has been of considerable amounts of content all at different stages of the content lifecycle process – some halted temporarily pending rights clearance, some halted permanently where rights are withheld and some that proceed a quick pace i.e. already having a creative commons license. It has meant the team have had to work in a flexible (agile) and highly collaborative way to ensure that blockages in part of the module did not delay creation of content elsewhere. One colleague has referred to the process as organic rather than linear. The following blog post describes our experience:

“it goes and gets messy again.

Although we have initially been given clearance (albeit verbal and informal) to use a myriad of materials/RLOs from various sources, it appears that when faced with a license agreement to sign, ‘rights holders’ (loosely termed) start to panic. More often than not, the people we are contacting don’t actually know what rights are attached to certain materials, and exactly who is responsible for signing any such agreement.” (Learning Technologist’s observation posted on the external blog 12 September 2008, <http://blogs.edgehill.ac.uk/reform>).

Two examples of difficulties experienced in gaining permission from rights holders are:

- BBC refusal to allow any content to be reused or repurposed. We made the decision to link to the BBC web site instead and have found that the pages we required have since been moved or removed.
- A University with a comprehensive set of resources on dyslexia support (including video case studies) gave informal permission for us to reuse/repurpose content but was unwilling to sign a formal license as they were unsure what rights they owned. Eventually they allowed us to reuse text-based content from their web site but could not allow us to use the video case studies because of the third party rights contained within them. We decided to link to the video case studies as they were a valuable and relevant resource.

For the team, ‘messiness’ has not simply been around search, retrieval, copyright clearance or reuse/repurposing, but in the lack of a ‘holding place’ where individual pieces of content could be stored, managed and information/metadata added in a systematic fashion. – i.e. a multimedia content repository.

We found that our tutor’s search and evaluation skills were not well developed – there is a real role for librarians in content location and rights identification. What worked best was the conversational/collaborative approach with technologists and academic colleagues described earlier rather than a production line with separate roles. We have found this has been very much the SOLSTICE model of the new academic team in action.

Review of module content

The content prepared for the module was peer reviewed by the Learning Services Skills Development Manager (who is also a qualified Dyslexia/SpLD Support Tutor). to ensure that it was relevant in terms of subject, pedagogic approach, audience and level. The approach taken was of a walk through of the module with the tutor before it went ‘live’ using an adapted institutional peer review template. Minor changes were then made before the module commenced.

The delivery of the module is not yet complete; however, we have access to student tracking data within Blackboard and to the discussion forum. A mid-term module evaluation has also been obtained from participants.

Stakeholder engagement

Liaison with the Information Resources Manager (with responsibility for copyright in relation to traditional library resources)

We have liaised with the Undergraduate PD Programme Leader and administrative team for quality assurance processes and with the Faculty Administration Manager for marketing the module and enrolment of students.

The module has only recently commenced and learner feedback only now starting to become available. We are seeking engagement with and feedback from participants throughout the duration of the module and at its conclusion.

The Skills Development Manager (with responsibility for Dyslexia/SpLD support) within Learning Services has undertaken a peer review of the relevance, level and audience of repurposed content when integrated within the VLE.

The module is led by Learning Services (supported by the SOLSTICE CETL) but for validation and administrative purposes, its home is in CPD, Faculty of Education. The validation event involved conversations with peers around the rationale for the module content and the use of blended learning.

SOLSTICE CETL: the ReFORM project team has reported to the SOLSTICE CETL Steering Group, which is embedded within the deliberative structures of the University. As with discussions with peers at validation, the conversations have seeded ideas around scalable and sustainable elearning through content creation, use and reuse.

The project has established links with Jorum and hosted a Jorum workshop for project teams based in the North West of England. This event provided us with invaluable information about the Jorum licence and options for uploading content. It also was an excellent opportunity to share experiences with other RePRODUCE project teams.

The team has engaged with the wider RePRODUCE Programme by attending events, publishing project web pages and a blog, participating in the RePRODUCE Google Group, undertaking an evaluation with two other projects (SMILE, Worcester and BL4ACE Thames Valley) and showcasing the project with a RLO demonstrating the RLO 'lifecycle' at the JISC 'Innovating e-Learning' online conference, 2008.

Section 5: Outputs and Results

The key output from the project has been the successful redevelopment of CPD 3767. The module has been redeveloped to utilise significant proportions of externally sourced content. The content is embedded within the Institutional Virtual Learning Environment (VLE), Blackboard, in a dyslexia 'friendly' template designed by the tutor and a learning technologist. (**Appendix 3**).

Micro-level outputs for the project include the various Reusable Learning Objects created and/or repurposed for inclusion and made available within Jorum. A framework for the selection of such resources has been difficult to implement. However, such a framework has been more easily applicable to the evaluation of repurposed content. The evaluation tool mentioned earlier (**Appendix 1**) describes the content's adherence to technical and accessibility standards, open licensing, quality assurance, and pedagogic suitability to the module. Earlier X4L work has also been influential as a tool to identify the professional development needs of individuals looking to reuse/repurpose material.

Throughout the lifespan of the project we have actively engaged in ongoing dissemination through the project blog. This has proven an effective method to publicise the project to colleagues across the institution and encourage sharing and content reuse on a wider scale. As a result, various colleagues have displayed a raised awareness to reuse and IPR, as well as motivation to engage in sharing. The raised awareness of reuse has impacted upon Learning Technologists approaches to content development. The potential for reuse is now a consideration in developments and will ultimately, hopefully, impact upon and encourage sharing amongst academics and support staff throughout Edge Hill.

As open content initiatives appear critical in the future of UK HE, we have developed an awareness of likeminded institutions willing to share content – this will be critical for future developments.

Recommendations to inform institutional policy and practice via the institution's Annual Monitoring Review (AMR) process and the senior Academic Managers' Group (AMG) are in the process of production. The lessons learned with regard to New Academic Teams, staff skills and issues around copyright and IPR are informing the forthcoming SOLSTICE/Edge Hill 'Future of Technology Enhanced Learning (TEL) Roadmap', the revised Information Strategy and the draft eProfessional Development (ePD) Framework. (**Appendix 4**)

Information and guidance (from final report, website, team reflections, learner feedback, papers etc.) for improved understanding of the potential for, approaches to, and challenges of, reuse at practitioner

and institutional level are being used to generate a case study for ICEL 2009, SOLSTICE Conference 2009 and other dissemination opportunities.

Professional development workshops for colleagues within the institution or in partner institutions in the region on themes relating to the project are planned as long-term activities identified within the draft institutional ePD Framework.

Section 6: Outcomes and Impact

The evaluation of the e-learning programme focuses on three key questions, each of which we will answer individually ⁽¹⁷⁾:

What have we done/built/achieved, to what quality, and how efficiently?

For a module such as ours (Dyslexia & other SpLD support issues), the Internet contains a myriad of rich resources that could positively impact upon its development. However the real challenge has been in filtering through the vast amounts for content that can be easily applied within our context and those that already have open licenses attached – the latter of which has proven a significant barrier to overcome. Our key finding in relation to this is the reluctance of ‘content providers’ to formally sign license agreements allowing reuse and repurposing. Often, contact names within organisations or HEIs are not those responsible for issuing such licenses, leading to a time-consuming and often unsuccessful pursuit for rights clearance. These issues were covered in our showcase at the JISC ‘Innovating e-Learning’ online conference, with parallels drawn between our experiences and those of the Psyche project (showcased by Dr J. Loose ⁽¹⁸⁾).

The positive experience of the ‘New Academic Team’ approach to collaboration for curriculum development has been described in the preceding section but we have also observed the team’s enhanced capacity, knowledge and skills in relation to various aspects of learning object (re)design, copyright and IPR and which has been cascaded to colleagues. This cascading effect has produced a noticeable willingness of colleagues involved in the development on blended and supported on line modules to proactively tackle issues relating to IPR.

The ReFORM Project has identified a lack of appropriate copyright cleared learning objects in the field of dyslexia support that are available for reuse in repositories such as Jorum. It will be interesting to read the experiences of colleagues working in other discipline areas and participating in the wider RePRODUCE programme. ReFORM will be in a position to deposit a variety of high quality teaching and learning content into JORUM Open on ‘learning to learn’ and Dyslexia support skills which had not been openly available previously.

Accessibility has been an important consideration in the production of our content as the module focus is on Dyslexia support issues in HE. We required the content to meet accessibility standards, be dyslexic ‘friendly’ and demonstrate best practice in these areas. To this end, we found TechDis to be an invaluable resource. Our tutor and technologist have gone beyond the minimum standards required of them to create an attractive and supportive environment within the VLE within which dyslexic ‘friendly’ content is embedded. The lessons and resources from this project can be disseminated and used widely to better support all students learning online.

What has been learned or confirmed through development activities?

An institutional copyright and IPR policy is identified as an action in the revised institutional Information Strategy (currently still in draft).

We believe some of the difficulties we have experienced in relation to seeking copyright clearance, such as an uncertainty over formally granting licenses, is a reflection upon the current attitudes toward content reuse/repurposing in UK HE. Hopefully, new initiatives, such as RePRODUCE and other funded projects, will help to impact upon attitudes toward the scalability and sustainability of e-learning and the production of content to make this so.

We have described how searching and clearing content was a ‘messy’ and lengthy process. Equally, we have also found that ‘messiness’ has also resulted from the lack of a ‘holding place’ where individual pieces of content could be stored, managed and information/metadata added in a systematic fashion. – i.e. an institutional multimedia content repository. The value of such a repository became more apparent over the course of the project – a place to store and manage content that was

found but not cleared or fully repurposed - a place pre-Jorum in the content *management* lifecycle. Our option has been to store materials in the VLE pending their uploading to Jorum and therefore remains locked away from colleagues within the University who might benefit from using/adapting our content themselves. This has been highlighted in the draft SOLSTICE/Edge Hill TEL 'Roadmap' as a key enabler of creating a culture of sharing and reuse of teaching and learning materials. This is not a low-cost/no-cost option and will require us to make a supporting business case before progress can be made⁽¹⁹⁾.

Our own experience suggests that widespread use and repurposing of digital content is dependent upon deliberate planning for reuse at the initial design stage. It also suggests that curriculum design using digital content requires a re-thinking of traditional roles and a broad acceptance of new approaches using non-hierarchical, multi-professional teams who can accept a blurring of roles and embrace the iterative process.

There is a significant issue related to the time taken to identify, re-purpose/create etc content; in part this can be explained by the time it took for roles/relationships to evolve amongst team members – but it may also highlight a significant gap between existing job roles and those required to take significant content creation forward. In part this can be addressed through staff development but equally this University should now consider suites of skills needed for the future.

With the benefit of hind-sight our understanding of the various aspects to RLO/OER prior to beginning the ReFORM Project was incomplete despite team expertise in learning object design, information search, retrieval and access, and IPR/copyright. We had not previously brought these skill sets together to create and make available new learning objects that reused external (*digital/electronic*) content, with sound copyright assurances attached. Similarly, as a central service, we had little or no knowledge or experience of negotiating the administrative and quality processes in the faculty which was 'home' to our module. The administrative side of setting up a module has been a new experience and the processes not clear cut. Our conversations within the deliberative structures of the Faculty and in the wider University about the rationale for the module and the use of blended learning have, however, enabled us to seed ideas around scalable e-learning through content creation, use and reuse.

We have also observed that the role of the tutor or subject specialist in the project has changed, as a result of the multi-professional team approach, from being the 'owner' of the curriculum design process, to being a participant collaborating with other skilled professionals. At this stage, we have more questions than answers around the wider-scale impact within an institution of the 'flattening' of the process of content creation and the perceived loss of autonomy/ sole ownership of the curriculum design process by academic colleagues. - Will this perceived loss of academic autonomy be regarded as adding or reducing the value of multi-professional or 'New Academic' team working?

How has the learning been acted on or fed back in?

It is our intention that the outcomes of this project to be regarded as the first phase in a longer-term, strategic shift towards the sharing and reuse of content as a means of scaling and sustaining the diffusion of e-learning across the University. The paradigm shift we have experienced in our working practices around design and development of RLOs is a direct result of working as a non-hierarchical, multi-professional team whose development in the early stages mirrored the 'messy' design process. In the latter stages the team has evolved into an efficient, collaborative unit, experiencing a blurring of roles and sharing of expertise that has enabled us to produce high quality digital content, enriched by the discursive and iterative process. As a result, a clearer understanding of the various issues related to reuse is beginning to emerge and preparations are underway to filter these into ePD and other support infrastructures across the institution.

Engagement with the X4L resources has prompted and informed a significant shift in Edge Hill's approach to elearning professional development with the pending introduction of a structured and strategic approach to ePD within the University.

The dyslexia friendly templates and principles used to create our module content will be applied and tested in a wider context with an internal project to create a study skills resource. They will also be disseminated widely within the University through its Teaching, Learning and Assessment committees

and through other fora. We shall also deliver a conference paper on lessons learned at the 2009 SOLSTICE Conference.

Unanticipated outcomes have been identified as follows:

- Enhanced working relationships with the 'home' Faculty. The module required approval due to it having been inactive for nearly five years, and marketing and recruitment processes demanded effective communication and collaboration with Faculty. We feel this has been invaluable in gaining a better understanding of Faculty processes, and has raised the profile of learning technology, open content, accessibility and copyright/IPR.
- An improved understanding of the processes involved in working in a new academic team and of the impact on roles and behaviours
- The production of taxonomy of learning object attributes for use as pedagogic metadata (still in the process of being refined and applied to our content (**Appendix 5**). This resource is inspired by and adapted from the resources contained in the Appendices of Beetham and Sharpe (2007)²⁰.
- The production of an ePD Framework for the institution that will place staff development in content creation within a surrounding framework. The prompt for this arose from engagement with the X4L and other JISC staff development resources to support reuse.
- Contact with other projects within the programme has been enhanced by the introduction of a Google Group. Whilst not heavily used, it does contain a great deal of useful information and discussion.

Summary of impact on stakeholders:

The marketing of the completed module has been exceptionally well received, highlighting a particular demand for a CPD module on Dyslexia and other SpLDs support issues in HE (and FE). Mid-module student feedback and an analysis of the postings to the discussion forum have provided an insight into how they are experiencing the online content. We have identified three common themes:

- Online content is perceived as either ok or excellent. There were no negative comments by students. The availability of online content was appreciated by most of the students who participated
- Some links to dynamic content i.e. external web pages, were broken/would not open
- Students did experience technical difficulties at the start of the module with JAVA related issues causing some students to experience problems accessing synchronous chat within the VLE. By the time the feedback was obtained, however, most reported that they had been able to resolve/solve most problems with tutor support

Summary of impact on the RePRODUCE Programme:

Whilst production of high quality reused and repurposed content has been achieved by this project, the main impact for the Programme has been in the greater understanding of the challenges facing practitioners and institutions wishing to scale up production of teaching and learning content in order for the UK HE sector to demonstrate world class quality and volume of material available as open content.

Section 7: Conclusions & Recommendations

Conclusions

The ReFORM project has proved to be a fascinating and challenging opportunity to test the potential of reuse and repurposing of teaching content at module level within the University. However, the issues the project has raised to date have prompted the team to think in a longer-term, strategic manner about the processes involved in the wider reuse and management of IPR of teaching and learning content and materials.

Our experience with the lack of appropriate external, reusable subject content and associated copyright issues has raised questions around the merits of reuse as apposed to the creation of new content. Copyright clearance is, as suspected by JISC at the outset, an issue. We have found that HE

rights holders are either unsure of own position or are uncertain as to whether they have inadvertently breached copyright when creating or adapting the material that they purport is theirs.

We were aware at the outset of this project that **process** was going to be of equal value to **output** and this we have found to be the case. ReFORM's new academic team approach to curriculum design and content creation provided a wealth of knowledge, skills and experience that covered all aspects apart from Faculty Quality and Administrative processes. The team have experienced a paradigm shift in working practices – working in a non-hierarchical, multi-professional team whose development in early stages mirrored the 'messy' design process but evolved into an efficient, collaborative unit, experiencing a blurring of roles and a sharing of expertise.

Insights gleaned from this project have informed changes to our practice and approach and may contribute to the wider community's understanding through their application of what Bassey (1999) terms *fuzzy generalisation* in that a study:

“reports something has happened in one place and it may happen elsewhere. There is a possibility but no surety. There is an invitation to try it and see if it happens to you.”⁽²¹⁾

Informal comparisons with our critical friends drawn from other RePRODUCE projects (SMILE and BL4ACE) suggest that we may have shared similar experiences with content selection and rights clearance, from which some inference can be drawn. We are less sure that our critical friends shared a comparable experience with regard to the adoption of multi-professional teamwork.

Recommendations

Casper, JISC Legal and Web2rights have been invaluable resources in this area, and we feel it would be useful to bring all these together into a single resource to aid others across the sector in the repurposing of existing content.

Similarly, staff development resources regarding reuse and the creation of RLOs are currently disaggregated and would benefit from being brought into a single resource.

Section 8: Implications for the future

Given the relatively small number of RLOs that have been created, interim storage of them in the VLE before transfer to Jorum is not an issue. It does, however, offer a greater challenge to Edge Hill in that there is currently no means of sharing content for reuse or repurposing within the University. Content is therefore 'locked in' to individual VLEs and unavailable to other staff within the institution. Our experience has prompted us to begin longer-term strategic planning in order to foster reuse of teaching and learning content across the University.

Copyright and IPR look to enjoy a raised profile both in academic⁽⁵⁾ and wider public life where “it requires a new legal regime to protect copyright with a deal for digital content rights, and a programme to educate, protect and train people⁽²²⁾”.

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Appendices

Appendix 1: Quality Management Evaluation Tool

Appendix 2: Edge Hill Peer Review of Teaching (observational checklist)

Appendix 3: Screen captures of module template within the Blackboard VLE

Appendix 4: ePD Framework for Edge Hill University (draft)

Appendix 5: Taxonomy of Learning Object Attributes (draft)

Appendix 1: Quality Management Evaluation Tool

Criteria/Learning Object	Conforms to appropriate technical interoperability standards i.e. IMS content packaging, learning design, common cartridge, SCORM.	Conforms to accessibility standards	Meets Jorum requirements for contributions	Released under open content licensing
Intro to Dyslexia & Definitions (Unit 1)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Dyslexia, Learning Styles & Causal Theories (Unit 2)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Dyslexia - Writing, Learning Support Model (Unit 3)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Dyslexia and SpLDs - The Process of Reading (Unit 4)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)

Criteria/Learning Object	Conforms to appropriate technical interoperability standards i.e. IMS content packaging, learning design, common cartridge, SCORM.	Conforms to accessibility standards	Meets Jorum requirements for contributions	Released under open content licensing
Dyslexia and SpLDs - Lectures, Note Taking & Aids and Strategies (Unit 5)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Spelling - Dyslexia and SpLDs (Unit 6)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Presentations, Exams & Revision, and Strategies (Part 1) - Dyslexia and SpLDs (Unit 7)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)
Presentations, Exams & Revision, and Strategies (Part 2) - Dyslexia and SpLDs (Unit 8)	Unit of Learning produced as IMS content package using the Reload Tool (JISC X4L Project)	<i>CSS driven unit, including ability to edit font size & colour and background colour, alt tags - W3C Web Content and Accessibility Guidelines (WCAG)</i>	Yes - zipped IMS content	CC - attribution, Non-Commercial, No Derivatives (BY-NC-ND)

Criteria/Learning Object	Conforms to guidelines on RLOs e.g. QIA excellence gateway check-list (short!); LOAM tool; Tom Boyle's evaluation project (note that this provides an example RLO evaluation, not a tool for doing it.)	Meets general educational design principles e.g. Becta core principles; X4L repurposing guidelines; CETIS guidelines	Meets subject-specific needs for quality and relevance (usually determined by tutor)
Intro to Dyslexia & Definitions (Unit 1)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Dyslexia, Learning Styles & Causal Theories (Unit 2)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Dyslexia - Writing, Learning Support Model (Unit 3)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist

Criteria/Learning Object	Conforms to guidelines on RLOs e.g. QIA excellence gateway check-list (short!); LOAM tool; Tom Boyle's evaluation project (note that this provides an example RLO evaluation, not a tool for doing it.)	Meets general educational design principles e.g. Becta core principles; X4L repurposing guidelines; CETIS guidelines	Meets subject-specific needs for quality and relevance (usually determined by tutor)
Dyslexia and SpLDs - The Process of Reading(Unit 4)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Dyslexia and SpLDs - Lectures, Note Taking & Aids and Strategies (Unit 5)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Spelling - Dyslexia and SpLDs (Unit 6)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Presentations, Exams & Revision, and Strategies (Part 1) - Dyslexia and SpLDs (Unit 7)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist

Criteria/Learning Object	Conforms to guidelines on RLOs e.g. QIA excellence gateway check-list (short!); LOAM tool; Tom Boyle's evaluation project (note that this provides an example RLO evaluation, not a tool for doing it.)	Meets general educational design principles e.g. Becta core principles; X4L repurposing guidelines; CETIS guidelines	Meets subject-specific needs for quality and relevance (usually determined by tutor)
Presentations, Exams & Revision, and Strategies (Part 2) - Dyslexia and SpLDs (Unit 8)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Maths, Key Issues, Cognitive Styles & Strategies - Dyslexia and SpLDs (Unit 9)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Maths, Assessment - Dyslexia and SpLDs (unit 10)	Object conforms to 'Management', 'Quality' & 'Equality & Diversity' sections of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L repurposing guidelines (Peter Douglas). X4L L2L Project Accessibility, Sustainability and Design Guides for Learning Resources Designers and Contractors (John Casey). Content packaging using Reload Tool. Guidelines for Working with VLEs	Subject content developed by Module Coordinator. Peer reviewed by subject specialist
Defining Dyslexia		X4L Guidelines for Working with VLEs	Object embedded within Unit 1
Dyslexia and Context - Thinking about Dyslexia: A staff Resource for Developing Practice		X4L Guidelines for Working with VLEs	Object embedded within Unit 2

Criteria/Learning Object	Conforms to guidelines on RLOs e.g. QIA excellence gateway check-list (short!); LOAM tool; Tom Boyle's evaluation project (note that this provides an example RLO evaluation, not a tool for doing it.)	Meets general educational design principles e.g. Becta core principles; X4L repurposing guidelines; CETIS guidelines	Meets subject-specific needs for quality and relevance (usually determined by tutor)
Dyslexia as a Cognitive Difference - Thinking about Dyslexia: A staff Resource for Developing Practice		X4L Guidelines for Working with VLEs	Object embedded within Unit 2
Affective Factors - Thinking about Dyslexia: A staff Resource for Developing Practice		X4L Guidelines for Working with VLEs	Object embedded within Unit 2
Reasonable Adjustments/Anticipatory Adjustments - Thinking about Dyslexia: A staff Resource for Developing Practice		X4L Guidelines for Working with VLEs	Object embedded within Unit 5
Dyslexia and Maths - Thinking about Dyslexia: A staff Resource for Developing Practice		X4L Guidelines for Working with VLEs	Object embedded within Unit 8
Be successful on the job despite having learning disabilities (Teachers at risk)		X4L Guidelines for Working with VLEs	Object embedded within Unit 2
Meta-Cognition		X4L Guidelines for Working with VLEs	Object embedded within Unit 2

Criteria/Learning Object	Conforms to guidelines on RLOs e.g. QIA excellence gateway check-list (short!); LOAM tool; Tom Boyle's evaluation project (note that this provides an example RLO evaluation, not a tool for doing it.)	Meets general educational design principles e.g. Becta core principles; X4L repurposing guidelines; CETIS guidelines	Meets subject-specific needs for quality and relevance (usually determined by tutor)
Editing and Proof-reading (Writing)		X4L Guidelines for Working with VLEs	Object embedded within Unit 7
Dyslexia Interviews - 18 episode series		X4L accessibility guidelines & Guidelines for Working with VLEs, SENDA	Individual files embedded throughout each of the 10 units
MP3 Audio Player			standalone player - Not subject related
Dyslexic friendly' HTML/CSS template	Object conforms to 'Equality & Diversity' section of the QIA Excellence Gateway - Quality Improvement Checklist, when applied to HE	X4L accessibility guidelines & Guidelines for Working with VLEs, SENDA	Standalone template - Not subject related

Appendix 2: Edge Hill Peer Review of Teaching (observational checklist)



Edge Hill University

**OPF 1
Effective teacher behaviour - observational checklist**

Teacher activity	Observed criteria	Good	Performance satisfactory	Poor	Not applicable
A. Gains students	<ul style="list-style-type: none"> - Clearly signals start of lesson - Speaks after class has quietened down - Welcomes students - Establishes friendly but businesslike atmosphere - Shows confidence - Shows enthusiasm for subject 				
B. Introduces subject	<ul style="list-style-type: none"> - Introduces subject in an interesting way - Clearly states subject of lesson - Clearly states aims of lesson - Describes structure of lesson - Issues brief/tells student what is expected of them - Demonstrates relevance of subject - Links subject with previous lesson - Places subject in context of course - Places subject in context of discipline - Relates subject to students' existing knowledge and experience 				
C. Explains subject	<ul style="list-style-type: none"> - Adopts logical, organised approach - Defines key terms - Explains clearly and concisely - Covers essential features - States relationship between whole and parts - Emphasizes key points - Varies pace of delivery 				
D. Makes good use of teaching and learning aids	<ul style="list-style-type: none"> - Uses media to produce variety of stimuli - Selects medium appropriate to the purpose - Checks equipment at start of session - Uses equipment effectively - Ensures that aids are visible to class - Clearly structures contents of materials - Presents materials well - Distributes materials when appropriate 				
E. Maintains students' interest	<ul style="list-style-type: none"> - Shows sustained enthusiasm - Uses analogies and metaphors where helpful - Tells pertinent stories and experiences - Gives interesting examples and topical illustrations that are pertinent 				

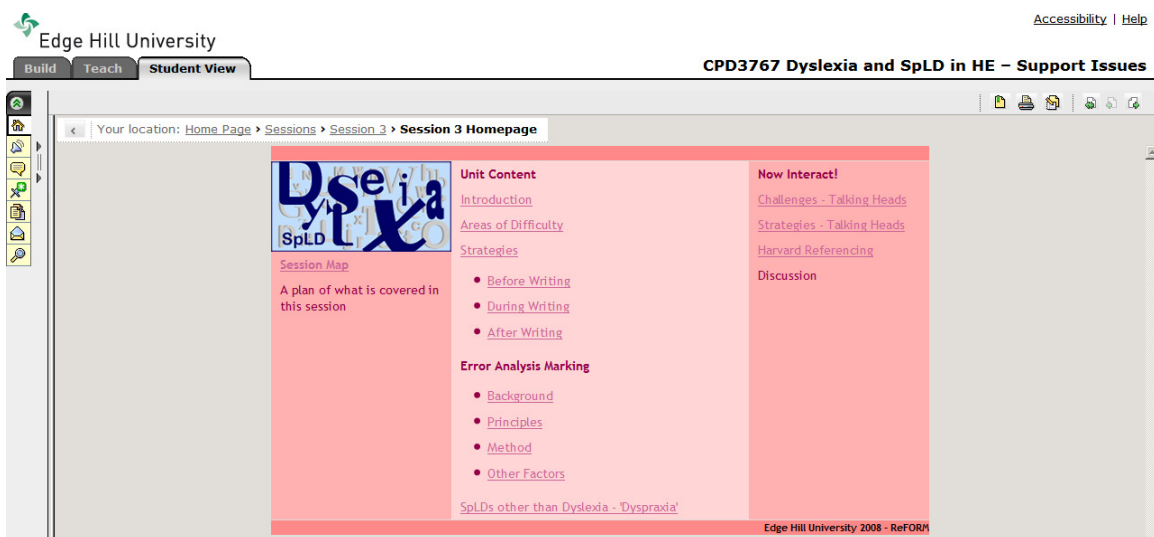
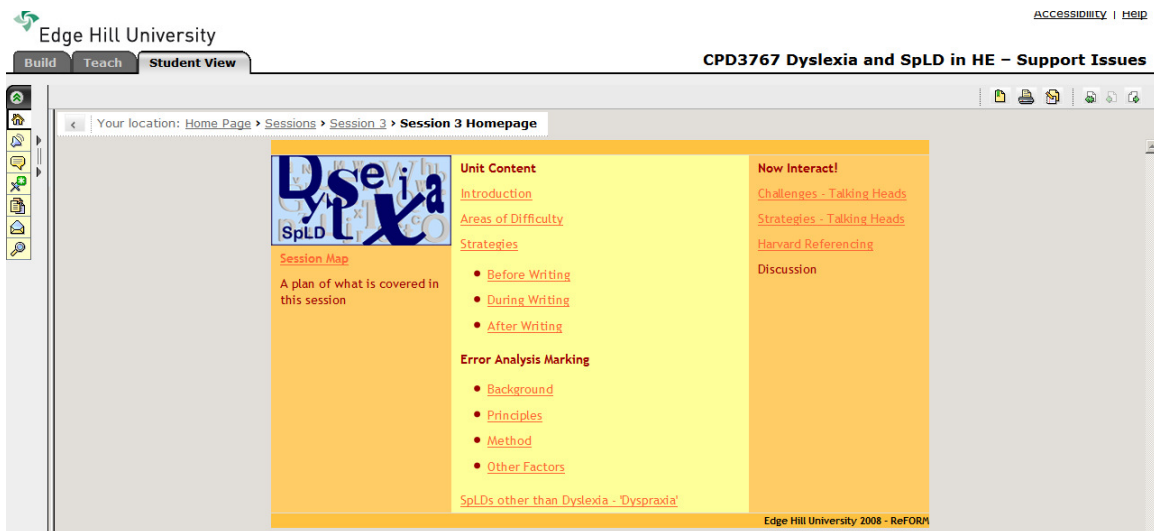
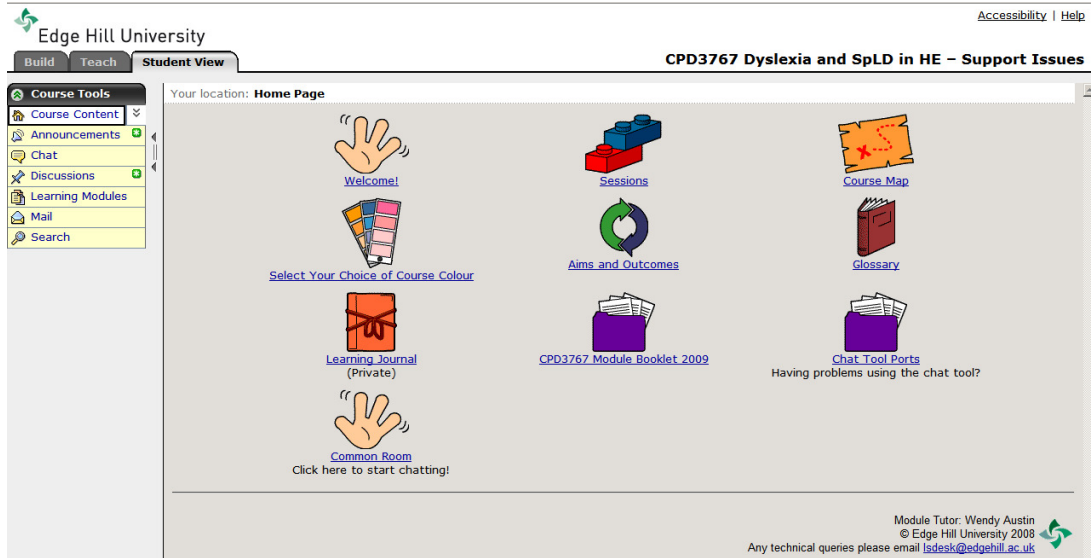
Teacher activity	Observed criteria	Good	Performance satisfactory	Poor	Not applicable
F. Asks and answers questions effectively	<ul style="list-style-type: none"> - Knows students' names - Encourages students to answer - Ask questions clearly and concisely - Asks questions involving analysis, synthesis and evaluation (higher order questions) - Distributes questions <ul style="list-style-type: none"> a) to group as a whole & b) to individuals - Uses questions to open up and explore subject - Invites alternative responses - Gives students time to answer questions - Listen carefully to students' responses - Uses prompts in inviting responses - Uses probes to elicit further responses - Clarifies/seek clarification of students' responses - Repeats/summarizes students' responses to class where appropriate - Makes use of incorrect answers - Reinforces students' contributions - Encourages students to ask questions - Answers students' questions clearly - Refers back to students' questions and answers 				
G. Organizes students' participation	<ul style="list-style-type: none"> - Sets tasks appropriate to the subject - Sets tasks appropriate to student ability - Sets tasks appropriate to the number and size of group(s) - Varies students' activities and types of interaction - Issues clear brief and allocates responsibilities - Monitors students' progress - Gives guidance to individual: students helps students solve problems - Invites and reinforces participation by quieter students - Restrains dominant students in a friendly way - Brings digressions back to subject - Gives constructive feedback on students' work - Manages group 'crit' 				
H. Responds appropriately to students' needs and behaviour	<ul style="list-style-type: none"> - Check students' understanding - Repeats/clarifies/amplifies where appropriate - Adjusts content to students' level of ability - Reassures students where appropriate - Shows awareness of students' non-verbal behaviour - Maintains an appropriate level of class control and discipline - Invites students to share own experiences/give own examples - Shows appreciation of students' viewpoint 				

	- Responds effectively to latecomers				
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Teacher activity	Observed criteria	Good	Performance satisfactory	Poor	Not applicable
I. Communicates well using voice	<ul style="list-style-type: none"> - Speaks clearly and concisely, using language that students can understand - Emphasises key points non-verbally - Uses body movement, posture and facial expression to convey extra meaning - Makes eye contact with students - Varies speed and volume of speech - Uses pauses/silences to effect 				
J. Makes good use of time	<ul style="list-style-type: none"> - Starts promptly - Shows evidence of lesson planning - Departs from plan where appropriate - Finishes promptly 				
K. Closes lesson	<ul style="list-style-type: none"> - Reiterates and summarizes key points - Issues reading lists - Gives clear instructions for follow-up work - Offers help between lessons - Identifies links with following lesson - Acknowledges students' achievements - Closes lesson in an interesting way 				

(Based on checklist devised by the Educational Development Service, University of Northumbria).

Appendix 3: Screen captures of module template within the Blackboard VLE



Appendix 4: ePD Framework for Edge Hill University (draft)

Levels of the National Professional Standards Framework for Teaching & Supporting Learning		
Standard Descriptor: Level 1 Selective understanding	Standard Descriptor: Level 2 Extensive understanding	Standard Descriptor: Level 3 Support or lead on L&T issues
Pathway of practice-based ePD		
Level 1 activities: SOLSTICE introduction at Institutional Induction SOLSTICE Open Days Peer observation Membership of eLearning SIG social network Attendance at SOLSTICE Seminars, Symposia, Conference Attending central ePD Undertaking local/bespoke ePD as a result of participating in New Academic Team approaches to curriculum design	Level 2 activities: Participating in R&D activities relating to eLearning Facilitating or leading SOLSTICE seminars, fora Presenting at SOLSTICE Symposia or Conference Membership of regional, national, international eLearning SIGs and social networks	Level 3 activities: Senior SOLSTICE Fellow/ SOLSTICE Fellowship status Reader or Professor in Educational Development Presentation at national and international conferences Peer reviewed publications Facilitation role in curriculum design using SOLSTICE principles Securing RDF or external project funding for eLearning projects SOLSTICE input into VASP
Pathway of course-based ePD		
Awareness raising/briefing events Workshops, seminars, symposia, SOLSTICE conference	Individual MA in eLearning modules: CPD4485, CPD4486, CPD4488. Short introductory online courses	New modules in Leadership/ePedagogic research. MA in eLearning PHD with eLearning emphasis
Pathway of research-based ePD		
Project observer	Project participant	Project leader

1. Design and planning of learning activities and/or programmes of study			
Pedagogic	Technical	Leadership	Discipline
'Changing the blend' Designing activities for individual & group learning online 'Back to the future' – learning design eLiteracy and e-resources Sustainable eLearning Quality and resource issues Social Networking for L&T	Affordances of technology: Box of Tricks/ Digital Slam Introduction to the VLE and its affordances Introduction to e-resources	Web2Rights issues of legality Do New Academic Teams work? Research Forum Identifying best practice in learning design. Research Forum Resource and quality planning for new programmes	
2. Teaching and/or supporting student learning			
Pedagogic	Technical	Leadership	Discipline
'How do I prepare my students to become e-learners' 'Online tutoring – research and practice' Promoting and supporting online discussion Promoting interactivity in the classroom Developing learning literacies Learner experience of eLearning	Using Discussion/Chat tools Interactive whiteboard/tablet Classroom voting systems Using mobile technology and Bluetooth in the classroom Creating interactive learning objects Groups and selective release	Symposium: Learning Literacies Identifying best practice in teaching and learning using technologies. Research Forum	

3. Assessment and giving feedback to learners			
Pedagogic	Technical	Leadership	Discipline
<p>Online assessment: formative and summative</p> <p>Technology supported feedback</p> <p>Online testing and exams</p>	<p>Hot Potatoes software</p> <p>Turnitin</p> <p>Podcasting for feedback purposes</p> <p>Creating exams, surveys and quizzes using the VLE</p>	<p>ePortfolios/ digital self</p> <p>eAssessment: towards a model of best practice. Research Forum</p> <p>eAssessment: leadership considerations</p>	
4. Developing effective environments and student support and guidance			
Pedagogic	Technical	Leadership	Discipline
<p>Exploring online genres (writing for the web)</p> <p>'Netiquette': developing strategies to deal with inappropriate use of online discussion facilities</p> <p>Managing your online identity</p> <p>Inclusion, accessibility, learning preferences</p> <p>Using the VLE as a vehicle for pastoral support of learners'</p>	<p>eAdministration and the VLE</p> <p>Creating an accessible elearning environment</p> <p>Creating accessible documents</p> <p>Creating sustainable content</p> <p>Creating multi media content</p> <p>Embedding/ deep linking to external resources</p> <p>Creating Screencasts</p> <p>Creating learning modules in the VLE</p> <p>Using Web2.0 Tools</p> <p>Survey tools for obtaining feedback</p>	<p>Symposium: Leading eLearning</p> <p>JISC InfoNet workshops:</p> <ul style="list-style-type: none"> • Process review • Portfolio management • Project management • Change management <p>Beyond the baseline: what's next ... and why? Research Forum</p> <p>administration and changing practices</p>	

5. Integration of scholarship, research and professional activities with teaching and supporting learning			
Pedagogic	Technical	Leadership	Discipline
Information literacy series eLearning research methods Ethics and elearning research methods Emerald Publishers: prospective authors writing workshop	RefWorks Audacity Bristol Online Surveys	SOLSTICE annual conference Symposium: Exploring the opportunities and challenges of making greater use of technology within the research process Bid writing for eLearning project funding Tutors who mess with technology: epistemological journeys. Research Forum SOLSTICE/CREED Ethics Conference	
6. Evaluation of practice and continuing professional development			
Pedagogic	Technical	Leadership	Discipline
Evaluating your eLearning programme Peer review of eLearning Learner-centred approaches to evaluation (Baud & Prosser) Getting to hear the learners' 'voice'	Tools to support evaluation Customer Journey Mapping	Peer review of eLearning Costing of eLearning VASP Preparation Multiple voices of expertise in research: in search of impact and effect. Symposium.	

Areas of activity to be underpinned by:

Self-assessment tools

Core competences identified in staff use of baseline ICT skills and Blackboard use

Briefings and overviews of institution-wide changes to eLearning infrastructure and practices

ICT training in baseline ICT skills and advanced ICT skills required for competent use of eLearning technology

Guides and Toolkits

Peer support via membership of the eLearning Special Interest Group

SOLSTICE brokered research and development opportunities

Learning Technologists and Academic Librarians consultancy and participation in new academic team approaches to curriculum developments

Annual SOLSTICE Conference

Notes:

1. The Framework and pathways of ePD described on page 1 are informed by (and designed to nest within) the **Edge Hill Framework for the professional development of its teaching staff**.
2. The activities listed within the ePD programme set out from pages 2 onwards have been identified by viewing the 6 areas of activity described in the **UK Professional Standards Framework for Teaching and Supporting Learning in Higher Education**¹ through its core knowledge 'lens' of *the use of appropriate learning technologies*. Each section of activity has been further broken down into 4 sub-sections adapted from the **Learning and Skills Network Professional Framework for e-Learning**².

¹ <http://www.heacademy.ac.uk/assets/York/documents/ourwork/professional/ProfessionalStandardsFramework.pdf>

² <http://www.learningtechnologies.ac.uk/files/0627161Framework.pdf>

Appendix 4: (Draft)

Taxonomy of learning object attributes

<i>SOLSTICE Model</i>	<i>Attribute</i>	<i>Descriptors</i>
Purpose	Learning object type (brief description)	Trigger, Knowledge, Reinforce learning,**
	Learning outcomes	<p><i>Cognitive Knowledge</i> State, Recall, List, Recognise, Select, Reproduce ,Specify, Draw, Finding out/discover, Pronounce, Recite</p> <p><i>Comprehension</i> Explain, Describe reasons, Identify causes of, Illustrate, Question, Clarify, Identify, Understand,</p> <p><i>Application</i> Use, Apply, Construct, Solve, Select, Hypothesize, Infer, Calculate, Investigate, Produce, Construct, Translate, Assemble, Demonstrate, Solve, Write</p> <p><i>Analysis</i> Break down, List component parts of, Compare and contrast, Differentiate between, Predict, Critique, Analyse, Compare, Select, Distinguish between</p> <p><i>Synthesis</i> Summarise, Generalise, Argue, Organise, Design, Explain the reasons for</p> <p><i>Evaluation</i> Judge, Evaluate, Give arguments for and against, Criticise, Feedback, Reflect, Affective, Listen</p>
	Pedagogic approach	<p><i>Associative</i> Instructional system design, Intelligent tutoring systems, Elaboration theory, Didactic, Behaviourist, Training needs analysis</p> <p><i>Cognitive</i> Active learning, Enquiry-led, Problem-based, Goal-based scenarios, Reflective practitioner, Cognitive apprenticeship, Constructivist-based design</p>

		<p><i>Situative</i> E-moderating framework, Dialogue/argumentation, Collaborative learning, Activity theory, Apprenticeship, Action research, Reciprocal teaching, Project-based learning, Vicarious learning</p>
	Learner input needed to undertake the activity	<p><i>Assimilative</i> Reading, Viewing, Listening</p> <p><i>Information Handling</i> Gathering, Ordering, Classifying, Selecting, Analysing, Manipulating</p> <p><i>Adaptive</i> Modelling, Simulation</p> <p><i>Communicative</i> Discussing, Presenting, Debating, Critiquing</p> <p><i>Productive</i> Creating, Producing, Writing, Drawing, Composing, Synthesising, Re-mixing</p> <p><i>Experiential</i> Practicing, Applying, Mimicking, Experiencing, Exploring, Investigating, Performing</p>
	Interactive element	Individual, One to one, One to many, Group based, Class based
	Assessment	Not assessed, Diagnostic, Formative, Summative
Audience	Level of study	Level 3, level 4, Level 5, Level 6, Level 7, Level 8, CPD **
	Context and learner characteristics that influence the choice of tools or activities	Part time, full time, flexible, blended, online, distance, outreach, [traditional? non-traditional? Workplace learners] **
Form	Form	Quiz, audio, video, Word document, Spreadsheet, Access Database, PowerPoint, Game, simulation **
	Technical requirements	**

Time/duration	[add free text]
IRP/ethics	Creative Commons License, Consent required, Public Domain **

** fields where discussion is still needed about descriptors.
