

Complicated Labour: Delivering Inter-professional Learning Objects

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This paper reflects upon the experiences of creating, developing and production of learning objects for use on the Inter-professional Learning pathway for all healthcare undergraduates at Coventry University. In 2005 Coventry University in collaboration with Sheffield Hallam University received funding as a Centre of Excellence in Teaching and Learning (CETL). A key strand of work of the Centre for Inter-professional e-learning (CIPeL) is the production of e-learning objects to support and enhance inter-professional learning in health and social care.

Utilising Gibbs (1988) model of reflection this presentation will identify the experiences of secondment and disseminate the progress and production of the four Management journey learning objects, loosely based on the patient journeys (Davidson 2005) the author will bring to life the problems and barriers of creativity and collaboration encountered in the development of the management journeys. The key achievements, e-learning skills and platforms are considered as well as the emerging technologies supporting Inter-professional e-learning. An action plan will be identified from the reflections.

Key words Learning Objects (LO); Higher Education(HE); Inter-professional e learning (IPeL)

1. Introduction

This paper reflects upon the complicated process experienced by two Lecturers working in Higher Education (HE) involved in the development of Inter-professional Learning Objects (IPLO) Throughout this paper we have utilised and applied terminology associated with childbirth, the analogy is not coincidental. The primary author is a Registered Midwife (RM) and the development of IPLO is complicated, requiring care and management similar to childbirth.

The creation, development and production of Learning objects (LO) is an increasingly common activity for health care and social care teachers in Higher Education in the United Kingdom. The British Governments agenda [1] to ensure that health care professionals are able to work together to provide seamless patient care and to participate in Lifelong learning [2] has financed a number of projects to develop Inter-professional learning education [3]. In 2005 Coventry University in collaboration with Sheffield Hallam University received funding from the Higher Education Funding Council (HEFCE) as a Centre of Excellence in Teaching and Learning (CETL). In addition successful conjoint validation of all health and social care courses in 2005 was followed by the implementation of the Inter- professional pathway (IPLP) utilising existing WebCT provision. The IPLP created a demand for learning objects that meet the specific Inter-professional Learning outcomes of all disciplines in healthcare.

The Centre for Inter-professional e-learning (CIPeL) aims to “stimulate, support and develop inter-professional e-learning skills for staff”. A key strand of work of the CIPeL is the production of e-learning objects. The labour and delivery of LO’s are achieved in two ways: Individual CIPeL staff (with or without collaboration) developing a learning object or by secondment of Lecturers to CIPeL . It is the latter, on secondment to which this reflection focuses.

We will utilise a model of reflection based on Gibbs [4] as structured reflection is widely utilised by health care professionals in the UK to demonstrate professional development [5]. The systematic consideration of issues, experiences and the application of theory enable the reflective practitioner to learn and apply to future experiences. Our reflections could inform others who wish to develop IPLO's. Gibbs model [4] of reflection is chosen for familiarity and the lack of constraints the framework imposes upon critical thinking. Other reflections by the author focus on the experience of collaboration and the personal development.

During this reflection we will identify the delivery of management journey learning objects (MJLO), illustrating the creation (conception), development (labour) and completion (delivery) we will suggest how complications of collaboration, communication and constraints have impacted upon the Management journey (LO). An action plan will be identified and recommendations for others engaged in the delivery of LO's in addition a proposal to develop and create an e-delivery room for teachers exhausted by the complicated process of birthing learning objects.

2. Description of the product (Management Journey Learning Object)

2.1 Conception. A learning object has been described by Wiley (2002) as: any digital resource that can be used to support learning. Our intention was to create a learning object to meet Inter-professional learning outcomes in a common core Management module at level three. Our Management journey LO would be based on the Patient journeys [A pedagogical approach to the design of the LO was taken in that we developed and utilised triggers and e-tivities designed to enable students to identify qualities of leaders, management of change and problem solving.

2.2 Labour: The virtual learning environment (VLE) is Coventry University online (CUOnline), platform WebCT Vista, the content author tools Course Genie, Flash and Dreamweaver. A Knowledge management system was not considered at this stage.

2.3 Delivery: WebCT vista was introduced in September 2006. Word, Powerpoint and Impatica would be the technologies used to support the VLE. The e-activities are structured and functional in that knowledge is gained and students experience learning from and with each other. The Learning communities are mixed with each health or social care discipline being integrated. CIPeL has purchased the Repository licence for The Learning Edge (TLE)

3. Feelings experienced during the development of the Learning Object

Initial joy of the acceptance of our proposal (baby) was soon tempered with anxiety. Stress increased when both Rebecca and I changed jobs during the secondment. Time management was challenging as traditional university activities (Marking, moderation, external examining, recruitment and selection) did not diminish. A poster presentation for a Special Interest Showcase event challenged our technological skills, we were not familiar with IN-Design! We were motivated and enthusiastic about the Management journeys but progress was slow. At this point we decided to utilise Microsoft project to regain control and focus for the work. Meetings were rescheduled and objective driven. Opportunity to meet with other secondees' came late in the secondment. We did not utilise the Learning technologists effectively. We now require students to evaluate the Management Journey LO as it is due for completion (delivery) in December 2006. Like many research activities or projects we felt that we wished we had known more before we started. We have questions about reusability, use of technologies, when, where and what will happen to the LO? Where will our Management journey (baby) go?

4. Evaluation.

4.1 Conception: The management journeys LO have the following similarities with the Patient Journeys LO: scenario or trigger based, user involvement, utilised the same content authoring tool (Course Genie), portable and reusable, look familiar to the students and use the same VLE. Our original triggers have been amended following feedback from the Poster Presentation and demonstration of our learning object

at the launch of Special Interest Group (SIG) [8]. The e-activities have been developed and are now ready for testing by students. The trigger/scenario is crucial to the learning object as this provides the reality of journey. We choose to utilize a "Joint meeting" as students would experience them in clinical practice, and there are numerous journeys possible. Evaluation of the Management Journeys at this stage is important to validity and credibility of the product.

4.2 Labour: In order for e-learning to take place it is necessary to develop a "digitized entity that can be used, reused or referred to in technology supported learning" [9] However there is complication in that the Learning Objects also need to meet the specific Inter-professional Learning outcomes of all disciplines in health and social care these have been mapped [10] Inter-professional education has been said "to occur when two or more professions learn with, from and about each other" [11] A number of barriers to Inter-professional learning have been identified [12] It has been suggested that the utilisation of an e-learning environment may break or reduce the barriers experienced by health and social care practitioners' learning together. Further complications are that the students need to participate in the learning environment, contribute and cooperate. The value of LO's is increased if they are functional [13]

4.3 Delivery: The management journey LO will be accessed by approx 800 healthcare students utilising the platform WebCT vista via CU online in February 2007. Information and communication technologies have provided opportunities and tensions [14] The urgency to complete the Learning Object is a concern. Following the application of Microsoft project we regained control and are on target to deliver the LO.

5. Analysis.

5.1 Conception: Busetti et al described two types of learning object, structured and functional. They went on to consider structured learning objects to be articulated into guided LO, problem LO and mixed LO. Patient journeys are considered trigger or scenario based [7] and are both structured and functional as they address a case, include support materials and lead students to explore new topics. In applying a pedagogical approach [] to the design of the Management Journey LO we will engage students in e-activities which will lead learning and provide support for the students. By mixing the e-activities we have enabled the socialisation, information exchange and knowledge construction [15] This complicated structure of management journey LO is important to enable the students to work together Inter-professionally. It is thought that by utilising a VLE that some of the barriers to IP learning will be reduced, for example involving large numbers of students, a variety of Professionals (Learning communities are mixed) stereotyping and prejudice will be reduced.

5.2 Labour: How will the Management journey Learning Objects achieve Inter-professional Learning Outcomes and subsequently improve patient care?

The trigger/scenario is crucial to the Management Journey LO as this provides the reality of problem based learning, the focus of the acquisition of skills and knowledge and delivers small episodes or granules The utilisation of e-learning enables health care professionals learn from and with each other [16] to participate in learning objects to meet specific learning outcomes based on understanding the roles and responsibilities of a variety of health care professionals working in the health service as well as identifying contributions of voluntary groups and stake holders. The support provided by the teacher in the VL community throughout the Management Journey LO will encourage task completion, problem solving and motivation. This approach to supporting the learning process as scaffolding [17]

5.3 Delivery: There are two fundamental questions that should be applied to the delivery of the Learning Object. Will the Management Journey Learning Object be fit for the purpose of Inter-professional learning about Leadership and management? And Did we make the MJLO portable and reusable? Management Journeys contain e-activities that require students to contribute, communicate and work together. Theoretically if they can achieve this on line they will then be able to do this in providing care to patients.

There is a plethora of quality criteria to value digital sources but only a few suggestions about how to evaluate Learning Objects to structure quality courses [18]. The RLO CETL [20] has developed a RLO student evaluation which meets the needs of traditional learning objects. The task now is to develop an

evaluation tool which tests the ability to meet the Inter-professional outcomes. The final phase of the delivery of a Learning object could be considered to be the placement of the LO in a repository. The CIPeL repository utilises the Learning Edge software. Following completion of the pilot phase the repository should be available for use in January 2007. During this reflection we have realised a further complication. As developers of a learning object we lacked the knowledge and understanding surrounding assigning metadata and digital repositories. Metadata is the data or words which describe, classify or provide information about the Learning object and the repository is where the data and the learning object are placed. Our failure to consider the repository or the metadata illustrates how inexperienced we were in e-learning and specifically the delivery of LO's. CIPeL Repository management group have now identified The Learning Edge (TLE) as the content management system and the management journeys will eventually rest here. Who will ensure that the metadata is appropriate and to the required standard? It has emerged during this reflection that we may not have or wish to acquire the skills to assign metadata to our learning objects.

We would consider ourselves to be beginners in the creation and delivery of IPE IO's. and found the creation of the learning objects complicated. In sharing this experience we hope that other IPLO developers are able to meet the specific requirements of in developing IPLO's. Reducing the complications associated with IT standards, reusability, portability and assignment of meta data for the repository. Our capacity to become cyber teachers [19] has been challenged.

6. Conclusions:

Emerging from this reflection, complications for the delivery of IPLO's surround conception, labour and delivery. The final LO is affected by the nature and the severity of the complications. Critical analysis has identified the importance of pedagogy, including risk assessment, project management, and application of learning technology might assist in the safe and on time delivery of learning objects. This paper exposed our inexperience and demonstrated how two Lecturers now anticipate a safe delivery of the Management Journey Learning Objects. We have proposed an action plan with the intention of assisting others in the complicated process of delivery a learning object.

Summary and Action Plan:

- Inter-professional Learning Objects are complicated. **Action** – develop a tool to risk assess the complications of time constraints, communication and collaboration. Utilise Microsoft Project.
- Production of IPLO's may be complicated at conception, labour or delivery. **Action-** write a job description, disseminate pedagogy and utilise a IPLO evaluation tool. Pilot an e-delivery room.
- Support is essential for LO developers. **Action** – recommend regular meetings and plan special events. Consider supporting a community of LO developers
- Learning Object developers need to be familiar with and up to date with the variety and use of appropriate tools. Content authorising tools are numerous, varied and increasing **Action-** Learning Technologists may provide this service. Information Technology providers should consider how to best support and LO developers.
- Teachers in HE have some, but not all the necessary IT skills. **Action-** clear identification of when and how a learning technologist can, should and will help teaching staff. Utilise an online pre-secondment survey (e.g. surveyshare.com) to identify teachers' needs.

Further information

For additional information on the work of Centre for Inter-professional e-learning (CIPeL) you may refer to m-ICTE2006 poster presentation (CIPeL research group), m-ICTE2006 Collaborative projects: search for Partners CIPeL poster presentation and CIPeL at www.Cipel.ac.uk

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