Using systems and process thinking to design internal quality management practices for eLearning

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This presentation describes a successful implementation of quality management techniques to eLearning, within a theoretical background of systems and process thinking. The case study, at the University of Pretoria, South Africa, is published in the CEN/ISSS European Good Practice Guide for quality approaches in eLearning, and is recorded in the European Quality Observatory.

Whether one's working life is based in an airline, an insurance company, or a higher education institution, so much of quality and quality management is about learning how to work most effectively and efficiently with each other. The old saying that 'no man is an island' is never more true than today, when so many complex imperatives from both inside and outside of organisations are driving the need for people to liaise closer and closer together.

Understanding and documenting organisational processes and procedures can sound like a tedious endeavour, especially for hard pressed university academics and support staff who feel a strong urge to focus on the job at hand. But by taking a little time out, and involving all the role players in a particular process, everyone can take a step back to self-evaluate how they are tackling the required tasks, and to learn how to improve the 'way we do things around here'. In this way it is possible to empower people to see quality as something which is actually exciting, and can help individuals to collaborate to produce really good results.

One area where this is well illustrated is in the instructional design (ID) process for producing eLearning modules. ID is an intricate process involving many different types of role players, such as the lecturer, the student, the instructional designer, graphics and library staff. Each person speaks a different professional language, but must liaise and work together to produce a quality eLearning deliverable. Each person needs to have an understanding of the overall process, how they contribute to it, and what their jointly identified checks and balances are along the way. Depicting the process visually often enables people to relate to it, and brings them together to improve both process and deliverables as a team.

The presentation provides a brief introduction to the theoretical background for systems and process thinking, and applies this to the instructional design process in the eLearning support unit at the University of Pretoria (UP). The eLearning support unit designs, develops and implements web-supported and multimedia learning interventions for the University as part of its strategic drive towards education innovation.

The most important factors in implementing the quality approach were:

1. implementation of a **formal, online, process-based** quality management system (QMS), with training and continual support to encourage buy-in. Although the system was motivated by internal improvement rather than external accountability, a formal approach was required so that the system was documented, visible to external stakeholders such as university management, and auditable. The system was made available online in order to minimise paperwork, reduce perceptions of bureaucracy and minimise circulation of and reliance on obsolete documents;
2. **consensus driven** – based on internal ownership, not prescribed or 'spoon-fed' by the external consultant;
3. **ISO9000 cognisant** - recognising the many useful elements and principles behind the ISO9000 standards, without following requirements to the letter.

The objectives for the online QMS were as follows:

- To provide a defined framework for all role players to work together consistently along the entire process;
- To enable everyone, including new staff, to understand 'the way things are done around here';
- To identify together areas for improvement;
- To provide an integrated and simple method to access and use supporting documentation eg checklists, forms, templates;
- To ensure that the right tools are available to allow for comprehensive checks and to minimise errors;
- To try and catch any errors as soon as possible before it's too late or too expensive to fix them;
- To evaluate completed projects and help to assess their impact on teaching and learning at UP;
- To learn lessons which may help to improve future projects;
- To share more with each other about ways of doing things;
- To demonstrate to any external stakeholders (e.g. auditors or UP management) that the unit has a formal quality management system in place to control e-education projects.

The presentation describes how the ID process at UP was defined and visually represented as a 'Project Timeline'. Each one of the stages of the process was then documented (using self evaluation task teams) as a procedure to become part of the formal online quality management system. The online QMS has now become the adopted system for planning, developing and evaluating eLearning projects, and enables new staff to readily assimilate the working methods at UP. The project has achieved consensus and contributed significantly to efficiency and effectiveness within the eLearning support unit.

The presentation concludes by summarising the benefits of the approach towards implementing pro-active, improvement based, internal quality management systems. Far from 'bureaucratising' quality, the various role players, systems and processes which together make eLearning happen, can be properly co-ordinated towards achieving educational goals.

References and contacts

- The online QMS is available at: www.up.ac.za/telematic/quality/quality.htm

- The full implementation is described in FRESEN, J.W. & BOYD, L.G. (2005). Caught in the web of quality. *International Journal of Educational Development*, 25(3), 317-331, available online from the Elsevier database at www.sciencedirect.com, or from the authors.

- CEN/ISSS Good Practice Guide. Soon to be published at www.qualityfoundation.org/ww/en/pub/efquel/elearning.htm

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