THE QUEST FOR ECOMPETENT ACADEMIC STAFF: THE UNIVERSITY OF PRETORIA AS A CASE STUDY

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Introduction

Quality education and education innovation are key drivers reflected in the strategic plan of the University of Pretoria, South Africa (University of Pretoria, 2002). Following this thrust, the Department of Telematic Learning and Education Innovation (TLEI) takes the lead, facilitates and actively participates in actions aimed at education innovation, with a focus on establishing active and flexible learning environments in order to address the educational needs of lecturers and students (TLEI, 2004). The term 'telematic' is interpreted as flexible learning, enhanced by technology.

1. Education Innovation and eLearning

Information and communication technology plays an important role in the creation of flexible learning environments, offering new opportunities to optimise interaction and contact between lecturers and students, as well as between students. The majority of the academic programmes offered at the University of Pretoria involve a large component of contact, face-to-face sessions in which ICT plays a supportive role.

Within TLEI, groups of professional practitioners support education innovation and eLearning at the University:

- Education Consultants are committed to the development of a culture of teaching and learning excellence. They train and consult on various aspects of higher education practice, for example:
  - planning and facilitating learning opportunities to enhance active and experiential learning;
  - accommodating diverse learning styles;
  - benefits and reasons why the traditional teaching paradigm has to change;
  - planning and implementing assessment strategies;
  - compiling outcomes based study guides supporting the balance between the rights and responsibilities of both lecturer and student;
  - designing flexible learning environments;
  - using a wide spectrum of educational technologies and media appropriately.
- The e-Education team consists of project managers, instructional designers, graphic artists, video specialists, photographers and educational technology specialists. The following technologies are available with which to design and develop learning opportunities:
  - web-supported learning, using a campus-wide Learning Management System (WebCT™);

The Challenge of eCompetence in Academic Staff Development, Mac Labhrainn, I., McDonald Legg, C., Schneckenberg, D., Wildt, J., Galway: CELT, 2006.

- multimedia tutorials and supplemental material on CD-Rom (due to bandwidth limitations on Internet-based learning);
- computer-based testing (e-testing);
- video production and editing with a view of incorporation into the Web on a CD Rom;
- videoconferencing.

In 1998 WebCT was installed as the electronic learning platform for the university as a whole. It has been integrated with functions of other support services e.g. student administration, student finances and the library. In 2005 just over 2000 modules were electronically available in support of contact education (~ 50% of all active modules at the University).

Since 1993, e-testing has become an integral part of the assessment strategies of many academic departments. Well-equipped computer laboratories are available on the campus and each of the University's faculty campuses. Lecturers incorporate e-testing with input either directly into the computer or paper based tests which are later scanned in using an optical reader. An obvious driver for this assessment strategy is the time saving due to automatic grading. This also allows large groups of students to be tested regularly. Grades are available as soon as the student finishes the test and lecturers receive statistics on the test items to assist them in revising their tests regularly and improving the quality of assessment. Although the software that is currently used is effective, a project was undertaken to design and commission a customised web-based system that complies with the pedagogical specifications prioritised by the University of Pretoria.

2. Academic staff training: induction in education innovation and eLearning

Until recently the questions most often asked by teachers and trainers were "What must they know?" and "How am I going to teach it to them?" Today, the question that should be asked when planning is "What must they know?" and "What must they do in order to learn it?" (Cronje, 1996). Active students do not progress at the same pace, necessitating an approach to education which makes it possible for learners to steer their path of intellectual growth in such a way that they stay within the borders of their own disposition between boredom and anxiety (Steyn, 1999). The university conducts various programmes to train academic staff to deal with the challenges of facilitating learning at both undergraduate and graduate levels. Formal training to both departments and individuals is supplemented with a more contextualised and individualised support focus. This reinforcement takes the form of consultation, individualised training, class visits and formative feedback. Of the formal programmes, the following are more prominent:

- **Education Induction** programme (for newly appointed members of the teaching staff and for volunteers from those already employed)
- **Education Induction for assistant lecturers** programme (for recent graduates appointed as contract members of the teaching staff)
- **Induction of Novice Lecturers** programme (Similar to the one above, but focused specifically on those who will be teaching computer literacy modules)
- **eLearning training** programmes focusing on the use of WebCT and facilitation of eLearning.

Both the Education Induction and Assistant lecturer programmes focus on sensitising staff to higher education issues, best pedagogical practices and different delivery modes of contextualised teaching and learning. The training programmes have different focus points because of the respective target audiences.

The e-Education team offers regular short courses to academic staff to equip them to prepare study material for the web and to facilitate and monitor online collaboration in WebCT. Customised courses for an entire academic department may be arranged, in which their particular needs and subject area

are taken into consideration. The number of academic staff members trained in eLearning from 2000 to 2005 is shown in Table 1.

The following regular eLearning training courses are offered to academic staff members:

- **WebCT High Impact** course (a 1-day face-to-face course, including the teaching and learning model, the changing role of the lecturer and basic WebCT tools);
- **WebCT Intermediate** (a 1-day face-to-face course to enable lecturers to add content and build online courses);
- **WebCT Designer** (a 2-day face-to-face course, covering all the advanced WebCT designer tools and functionality);
- **Facilitation of eLearning** (a course on the planning and online facilitation of eLearning, comprising 10 days pre-contact online interaction, a 2-day face-to-face workshop and a 4-week post-course online component) (Drysdale and Fresen, 2005);
- **WebCT Vista™** lunch time sessions (from 2006) (45-minute refresher sessions, focusing on a single tool in the WebCT enterprise system (WebCT Vista™), which the University will pilot during 2006 and implement campus-wide from 2007).

The **Facilitation of eLearning** course is based on an *experiential learning* approach, which enables academic staff to experience the online learning environment as students. Lecturers are enrolled in the online course as students, while experiencing online facilitation techniques modeled by the presenters. Participants have ample opportunity to practice the skills they need to facilitate online learning, share ideas with colleagues and develop their own preliminary plans for courses and activities they plan to offer via the Internet.

	High Impact	**Intermediate**	**Designer**	**Facilitation**	**Customised**	**Total**
2000	79	/	/	/	/	**79**
2001	125	/	30	/	/	**155**
2002	68	18	14	/	/	**100**
2003	123	20	8	/	/	**151**
2004	104	30	16	21	34	**205**
2005	81	33	7	32	64	**217**
Total	**580**	**101**	**75**	**53**	**98**	**907**

Table 1: Number of academic staff members trained in eLearning at the University of Pretoria

The benefits of the eLearning training programmes are that they equip lecturers to:

- prepare basic study material for the web;
- add content to existing web-supported courses;
- maintain and update existing web-supported courses;
- build web-supported courses using the full range of designer functions;
- facilitate and monitor online collaboration and interactivity;

- have full control over the development and maintenance of web-supported courses;
- plan, develop, implement and facilitate web-supported learning in the context of a blended learning model.

Although specialised courses are offered in eLearning it is also embedded in the general training that is provided to academic staff members. We have, of course, also identified the uptake of such training on a faculty by faculty basis and it is interesting to note that, as in previous years, the number of participants in the faculties of Health Sciences and Engineering, Built and Information Technology (EBIT) are significantly higher than in other faculties.

3. e-Support

Support is as vital as training. The e-Support sub-section of TLEI has as its main objective the enabling of lecturing staff to function as independently as possible without lowering effectiveness.

Strategies followed in order to reach this goal include individualised training in their own offices, on their own computers while using their own lecturing materials. The nature of this support primarily aims at lecturer competence in terms of communication and the distribution of lecturing material. The point of departure is that all lecturing staff have the inherent capacity to become e-competent, but lack of perceived need may delay initiative from the lecturers' side. The training of administrative staff in order to make student administration easier is used as a vehicle not only to ensure quality, but also to create a "vortex" of technology to make the need for eCompetence a reality in the lives of laggard individuals.

At the same time a client service management system is employed to study tendencies, identify problem areas and optimise training opportunities. These services are regulated by a *service level agreement* with faculties which manages expectations to both sides and ensures client satisfaction.

4. Case Study

The case study below is an example of an initiative to support lecturing staff within the context described above.

4.1 *Inter-disciplinary Masters in Early Childhood Intervention*

The Masters Degree in Early Childhood Intervention started in 2001 and is aimed at multi-professionals with specialised knowledge and skills in the field of early childhood intervention who render services to infants and young children. It aims to equip such professionals to function optimally in a changing and challenging social context, by:

- working in teams with professionals and community members to facilitate social development;
- understanding their own role within the team of early childhood professionals;
- developing comprehensive strategies for intervention;
- critically evaluating the accountability, appropriateness, and sustainability of service provision.

The Masters programme spans eight professions, including medical practitioners, therapists, educationalists, educational psychologists, nutrition specialists and social workers, all working with children between 0-6 years. The programme is strongly rooted in the South African context and the

influence of issues such as poverty, HIV/AIDS, violence and abuse and chronic diseases on child development is addressed.

The programme is offered over two years and consists of five modules of transdisciplinary training, one module profession-specific or targeted training and a research component. The programme content is delivered online and is supplemented with a textbook and additional resources for each course. "Syndicate learning" or group work forms an integral part of the course and students are required to collaborate with students from other disciplines. Students meet on campus for block sessions several times a year, but otherwise all interaction and collaboration takes place via the Internet.

4.2 *Instructional design*

All course outlines and reading materials are presented to students on CD ROM to facilitate the printing and downloading of material. This was particularly important due to the poor printing quality of some HTML pages, in addition to the download costs previously incurred by the student. Ten video case studies were specially scripted and filmed at locations of local relevance. These are provided to students on an additional CD ROM.

To ensure accessibility of the course content at all times, the CD ROM content was mirrored (or duplicated) online in WebCT. The motivation for the duplication of content on the Internet is that students will not necessarily have the CD ROM available at all times and may need to refer to the course content for online discussions. The same interface was used on both the CD ROM and WebCT versions for consistency and to avoid confusion.

Most of the electronic content is delivered in PDF format, since this facilitates easier access for students who prefer to work from a print version of the materials. Furthermore it enables easier maintenance and updating of the material.

4.3 *Online teaching and learning strategies*

Scaffolding as part of the learning process on the web received considerable attention. The project leader and more experienced facilitators invested time in coaching skills development in facilitators unfamiliar with web-based learning. Strategies were discussed to promote debate and critical thinking in online discussions.

The South African Institute for Distance Education (SAIDE) was asked to evaluate the programme (Alant et al, 2002). Students were provided with the recommendations of the SAIDE report to facilitate their own peer group discussions. The recommendations, as well as the skills required of a student to facilitate a group discussion, were shared. These are now routinely included and discussed during the on-site visits of the students.

In order to improve their time management skills, students were provided with the CD ROMs and other required materials in advance so that they could be orientated before the course officially started. Issues surrounding allocating time for discussions and advanced planning for discussions on the web are also routinely negotiated.

4.4 *Conclusions about this case study*

Although the challenges imposed on project leaders, programme coordinators and facilitators by a multi-professional collaborative degree programme like the Masters in Early Childhood Intervention are multiple, the impact of the programme on students' ability to work together and engage in problem-solving in the field has been most rewarding. In keeping with Cronje's (1996) comments, the challenge of online distance education does not lie in being able to conduct courses on the web, but in carefully monitoring the value added to the students' life by being part of the course. Careful analysis

and reflection on interactions on the web as a basis for the further development of facilitator and student skills are essential to ensure quality training.

5. Conclusion

The University of Pretoria proved their commitment to quality education and education innovation by establishing the *Department of Telematic Learning and Education Innovation* in 1997. TLEI fulfils a vital role in promoting excellence in teaching and learning and in supporting academic staff. This initiative covers a wide spectrum of interventions which already starts during the induction process of new staff members. Access to appropriate facilities, training and support is seen as key elements of the competence strategy. The department has teams of professional support staff who are involved in academic staff training, project management and the design and development of a technology enhanced learning environment.

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