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 a flexible learning environment in order to address the educational needs of its clients.

Strategic objectives for 2003 to 2005

1. To occupy a leading position in terms of educational excellence (both within TLEI and UP). This means that TLEI should contribute to the improved effectiveness and efficiency of activities associated with curriculum development, assessment and facilitation of learning in faculties; that educational excellence is promoted in the policy documents of the University of Pretoria; and that senior decision-makers are influenced accordingly.

2. To occupy a leading position in South Africa in terms of the use of information and communication technology in education. This implies continuous adaptation and renewal in terms of e-learning systems, educational technology and new media.

3. To support undergraduate modules at UP by using appropriate information and communication technology. This includes other means of support using information and communication technology (for example, assessment, multimedia, administrative support, simulations, process models, etc.).

4. To make taught postgraduate programmes available to students in the web environment.

5. To successfully apply appropriate e-learning systems in e-learning and m-learning environments integrating relevant communication and delivery technologies, such as Internet Protocol (IP) conferencing, video-streaming and synchronous web software.

6. To train UP staff in, inter alia, curriculum development, assessment, learning facilitation, e-learning facilitation and web-supported education.

7. To supply appropriate educational technology in meeting venues, together with sufficient maintenance and effective support.

8. To deliver quality support to off-campus students: tutor services, examination services and logistical services.

9. To align and optimise support infrastructures in order to enable faculties to lower student attrition rates and raise graduation rates, taking into account the circumstances in faculties and the maintenance of standards.

10. To extend the strategic positioning of TLEI by optimising it as a Department, its services and strategic value. This includes communicating the impact TLEI has on the core business of the University.

11. To accomplish continued organisational and system development within TLEI. This includes internal quality assurance.

12. To create a work environment within which TLEI human resources can effectively deliver services, are able to excel and to develop on a personal level.

13. To further diversity within TLEI and reach diversity targets for 2006.

14. To support strategic international initiatives in terms of consultation and training in education innovation, paying specific attention to Africa.

15. To continually underpin and renew TLEI activities by targeted action research, keeping up with the latest international developments and tendencies.

Note: The above strategic objectives are being pursued in addition to the normal support service activities rendered by TLEI, such as educational consultation, instructional design, graphic, video and other related services.
The University of Pretoria is devoted to quality education achieved through continuous education innovation. The enhancement of student learning towards the creation of the innovation generation is a key strategic driver. The University has embraced the challenges and opportunities provided by rapid changes in technological and educational environments.

Changes in our environment and society inevitably lead to changes in our approaches to educational practice. Some of the factors influencing the continual renewal of educational practice are developments in information and communication technology (ICT), the commercialisation and globalisation of education, social changes and the pursuit of quality.

Like all innovative organisations, the University of Pretoria (UP) conducts ongoing research and development work with regard to its own processes and products. The Department of Telematic Learning and Education Innovation (TLEI) offers expertise and experience in the fields of innovative teaching and assessment practice, the optimal use of ICT in higher education, the provision of modern technology in classrooms and other learning spaces, as well as the integration of visual and audio stimuli in the didactic process, all of which enhance teaching and learning experiences. This annual reflection offers the opportunity to thank all staff members in TLEI sincerely for their creativity, hard work and commitment to pursuing the vision and mission of the department. Their efforts are appreciated by management and the clients they serve.

The University needs to maintain the momentum of these initiatives, to ensure that all aspects of education innovation are continuously addressed. Educational productivity should increase, which in turn demands that educational processes become more effective and efficient. There should be clear improvements in the throughput, retention, graduation and dropout rates of all student cohorts. The challenge is not only to invent, develop or identify better, cheaper and faster processes, but also to progress from being good to becoming great.

**Some highlights of 2004**

- **Academic staff training** was successfully conducted. Approximately 469 lecturers completed education induction and assessment courses, and 239 staff members attended courses on web-supported learning.
- **Vice-Chancellor initiatives** were undertaken to enhance teaching quality at UP. Two such projects were the investigation of problems associated with teaching large classes and the improvement of the quality of study guides.
- **The growth in the use of the learning management system (WebCT) continued.** Web support was provided to 26 576 students in 1 601 modules across a variety of academic programmes. The student and lecturer portals were further upgraded during 2004.
- **The continued growth** caused concern over the current WebCT Campus Edition is not scalable to meet the needs of current or future growth. During the first half of 2004 a task team evaluated various options for further development and sustainability of the e-learning platform. It was recommended that the best solution would be to convert to the enterprise system WebCT Vista.
- **M-learning mobile learning is a new extension of e-learning** and has the potential to make learning even more widely available and accessible than in existing e-learning environments. Good progress was made with regard to several m-learning pilot projects.
- **The e-portfolios system** will create a digital record of a learner’s achievements. Substantial progress was made with this project during 2004. Integration testing is planned for May/June 2005 and the project will be rolled out across the entire campus in July 2005.
- **Computer-supported assessment or testing** increased during the year under review to 125 368 opportunities. In this way, the principle of continuous assessment of students is applied without drastically increasing the administrative and skills load that accompanies it.
- A task team investigated a variety of possible testing systems that could be purchased in order to replace the current computer-based testing system. No “off the shelf” system was available that met all the needs of users. A local company was tasked to develop a system according to UPS specifications. The first draft of the system was installed on the UP server in November 2004. Implementation is planned for the second semester of 2005.
- **Seven multimedia projects** were completed during 2004, including a substantial update to the CD-Rom for students who have a WebCT course.
- The Department participated in a project in collaboration with the AIS to eradicate plagiarism. The aim of the project is to sensitize academics to plagiarism and to make them aware of the extent of the problem. The team participated in the evaluation of software that can trace such offences.
- A number of action research and development projects were undertaken. In collaboration with other academic and support service role players, the student attrition project developed into a University-wide study success project.
- Other action research projects and activities during 2004 included student feedback from undergraduate and postgraduate students, redesigning and improving student feedback surveys and new educational media and technologies.
- Educational technology plays an important part in the University’s strategy to educate the innovation generation. A number of initiatives were undertaken to promote and sustain the use of educational technology.
- A significant number (21 875) of students graduated from the partnership programmes with external providers. Support structures and services were introduced during 2004 to improve the success rate of pipeline students as far as possible.
- Off-campus student support was provided in a number of ways. Service points for interactive television broadcasts, video facilities, tests and examinations were provided. Off-campus examinations were arranged for 2 200 students.
- The University of Pretoria has been using interactive television (ITV) as a teaching support medium since 1994. A dedicated satellite channel (the TeleTuks satellite channel) was implemented in 1997 to provide ITV through digital satellite television (DSTV). Due to a number of factors, the University Executive decided to close the TeleTuks satellite channel at the end of 2004.
- The University has for several years been involved in upgrading the quality of teaching and learning in schools through the TeleTuks Schools Community Service Project. During 2004 school level subjects were broadcast to 89 schools with sponsored equipment. For business reasons, the TeleTuks Schools Project was phased out and closed down at the end of 2004. However, the University will continue with alternative projects aimed at the development of teachers and teaching quality in schools.
- In times of increased funding and budget limitation, it is vitally important for a department such as TLEI to be able to produce evidence of the impact of its services on improved teaching and learning at the University. This is no easy task, since many of its services focus on change management, relationship building and ongoing support to academic staff, which is seldom measurable. A research project was initiated in 2004 to examine return on investment (ROI) from both a human and business performance perspective. Various methodologies are being investigated.

Prof J A Boon  
Director - Telematic Learning and Education Innovation  
20 May 2005
The Department of Telematic Learning and Education Innovation (TLEI).

Establishing education excellence at UP is the driving force behind the Department of Telematic Learning and Education Innovation (TLEI).

This is a significant challenge due to the fact that the education environment has been transformed by changes in the teaching and learning environment over the past few years, together with developments in the field of information and communication technology (ICT).

To encourage innovation, the University needs to create appropriate structures for new ideas to be debated, piloted and evaluated. For this reason, all faculties have instituted education innovation committees, developed education innovation plans and appointed education innovation managers.

The next step is to encourage innovative teaching and learning practices. This includes curriculum design, assessment and learning facilitation. An Education Innovation Workgroup, comprising the education innovation managers and education consultants, coordinates all the education innovation initiatives at the University. A University-wide education innovation plan was developed and accepted by Senate in May 2003. The plan focuses on the following strategies and categories: change management, research and development of higher education, education policy, throughput rates, performance management, lecturer support, incentives, training of lecturers, assistant lecturers and tutors, optimising e-learning environments and academic product development.

Presenting modules in flexible and/or e-learning mode is a logical development in order to enhance learning. A total of 1601 modules (847 undergraduate and 754 postgraduate) were supported by online components (WebCT). This number is increasing steadily.

New educational approaches

Universities are constantly being subjected to renewal because of:

- technological and social changes;
- new educational approaches;
- an increase in the importance of open and flexible learning;
- the digitisation of information and communication media;
- commercialisation and globalisation of higher education; and
- the pursuit of quality.

The focus is shifting from teaching and the transfer of knowledge, to learning and the facilitation of learning processes, supported by appropriate educational ICT. Learning communities will freely tap into dynamic global knowledge and participate in learning projects that focus on the development of skills, such as problem solving and the reconfiguration of knowledge instead of the traditional mastering of subject content. The lecturer is the leader in the learning process: the coach, the mentor who creates stimulating learning environments within which learning can thrive.

Higher education should be flexible and UP has risen to this challenge of transformation. Its new educational approach is based on a technology-enhanced flexible learning (telematic education) paradigm. This approach takes international trends in education innovation into account, while addressing the needs of a developing southern Africa through appropriate technology-enhanced delivery systems.

E-learning is provided via the worldwide web (WWW) and through the appropriate integration of various information and communication technologies such as interactive multimedia, computer-based assessment, interactive television and video-conferencing and modern educational technology in classrooms.

Educational practice at UP is continually innovated through various projects and initiatives based on change management principles and aimed at a constant renewal of educational processes such as curriculation, the facilitation of learning and assessment processes. Specially designed training courses in assessment, educational media (classroom tools for face-to-face teaching), facilitation of online learning, curriculum, web-supported teaching (using WebCT) and an education induction course for newly appointed academic staff, play a very important role in transforming teaching and learning practices.

The Department undertakes to implement its mission in a manner that takes into account the needs, knowledge, skills and attitudes of its clients, namely academic staff and students, as well as external clients and stakeholders.

The Department is committed to the delivery of services, products and systems that embrace the principles of:

- fitness for purpose;
- client satisfaction;
- cost effectiveness;
- defined standards;
- negotiated time frames; and
- continuous improvement of the Department’s processes and functions.
Assessment workshops

The overall principles of assessment and the role of assessment in establishing learning and higher order thinking are examined during campus-wide training workshops in assessment practice. The programme is developed according to the framework laid down by the South African Qualifications Authority (SAQA) for accreditation purposes. Two assessment workshops were presented during 2004, which reached 35 academics.

Faculty-specific highlights

Health Sciences: The School of Medicine an ongoing block-by-block audit was undertaken to evaluate the assessment practice in each block of the five-and-half year curriculum. For each block a survey of the assessment practice was undertaken and described. A report was written highlighting the strengths and weaknesses and recommendations were made for improvements. During 2004 four blocks and a special activity block were audited, in the School of Dentistry a Quality Assurance Committee was formed to undertake a thorough audit of the BChD curriculum against the accreditation criteria of the Health Professions Council of South Africa (HPCSA). In preparation for the HPCSA’s accreditation visit in 2006.

Veterinary Science: The tutor training programme was revised and presented early in the year. Training sessions for staff were presented at Onstendepost during the course of the year. Ongoing support was provided for lecturers preparing study guides, especially for postgraduate courses in the learning environment.

Law: The Faculty of Law underwent an external evaluation during 2004. This evaluation included the Faculty’s teaching and assessment practice, for which thorough preparation and development was undertaken with the support of the TLEI education consultant.

Humanities: The Faculty of Humanities arranged an education innovation get-together in 2004 during which Dr Amanda de Preez (Department of Visual Arts) and Dr Marius Oosthuizen (Department of Restorative Dentistry) made presentations on their innovative practice. Thirty staff members attended. An education innovation morning was held in the year during which several lecturers presented innovative practice to the faculty members who attended. This event inspired lecturers to share ideas. A joint venture by the Faculty and TLEI made it possible for Ms Tanya Turpin, a lecturer in the Department of Journalism at the Durban Institute of Technology, to visit and share her experiences of facilitating learning by means of an online newsletter. Thirty-five delegates attended this presentation. In 2004 the Faculty embarked on two major research projects: an investigation into the feasibility of 14-week modules and an evaluation of the current tutor system.

Education, Built Environment and Information Technology: In early 2004, the heads of all departments decided to make the use of WebCT obligatory for all undergraduate modules in the Faculty. The University was identified as the southern African representative of the Conceive-Design-Implement-Operate (CDIO) initiative, which seeks to reform engineering education. CDIO describes the product or system lifecycle for which professional engineers have responsibility. A number of leading engineering schools are collaborating in this initiative, including the Massachusetts Institute of Technology (MIT) in the USA and the Chalmers University of Technology in Sweden. The Engineering Council of South Africa (ECSA) has a similar approach and therefore only minor adjustments will be needed to embrace the CDIO initiative.

Economics: The Faculty of Economics focused on developing and implementing relevant training programmes to newly appointed permanent lecturers. The programme introduces participants to the theory and skills required for a professional economics education. It was presented three times during 2004 and was well attended.

Theology: Dr Christo Lombard was instrumental in ensuring that all Theology modules now have WebCT representation. During 2004 Prof Gerdt Staryn and Prof Yolanda Dreyer contributed positively to the education induction programme for newly appointed lecturers. Additional support was provided to Memelodl Campus staff in writing study guides in the appropriate format and in the practice of instructional design. Practicals within Animal Anatomy and Physiology (Animal and Wildlife Sciences) were revised to accommodate large groups. Dissections were videotaped and projected during the sessions, providing an opportunity for each student to observe the procedures closely. The video material will be used for future learning and assessment initiatives.

Natural and Agricultural Sciences: TLEI participated in the process of welcoming and orienting staff from the Memelodl Campus. Lecturers attended a briefing session at TLEI on the teaching model followed at the UP main campus. Some of these lectures attended the induction programme presented by TLEI for newly appointed lecturers. Additional support was provided to Memelodl Campus staff in writing study guides in the appropriate format and in the practice of instructional design. Practicals within Animal Anatomy and Physiology (Animal and Wildlife Sciences) were revised to accommodate large groups. Dissections were videotaped and projected during the sessions, providing an opportunity for each student to observe the procedures closely. The video material will be used for future learning and assessment initiatives.

The Department biennially presents Education Innovation Awards to individual lecturers or groups of lecturers within the University. Staff who contribute to education innovation through innovative teaching products and/or processes are recognised in one of the following areas: the facilitation of learning, curriculum development, assessment, management of the learning environment or the use of electronic media. Laureate Awards for exceptional contributions were presented to Prof Emr Heath (Tourism Management), Mr Felix le Roux (Construction Economics), Prof Willem Leushner and Prof Johan Haneleim (Electrical, Electronic and Computer Engineering) and Prof Ina Treadwell (Skills Laboratory). Sixteen nominees received certificates and fourteen received recognition for education innovation (see list on p31).

Education induction programme

The Department presents regular education induction programmes to newly appointed permanent lecturers. The programme introduces participants to the theory and skills relating to teaching responsibilities in higher education. The programme is aligned with the National Standards for Higher Education. It was presented three times during 2004 and was attended by 130 lecturers.

Training of junior staff members

Education consultants provide training and support within faculties to prepare junior staff for their responsibilities as learning facilitators. During 2004, 138 junior lecturers and tutors from a variety of faculties attended customised training sessions.

Evaluating the future...
The core focus of e-education is the skillful and appropriate integration of various information and communication technologies, including the worldwide web (WWW), interactive multimedia delivered on CD-Rom and computer-assisted assessment.

**Instructional design**

The Department of Telematic Learning and Education Innovation (TLEI) follows a team approach to instructional design. Together with the Department’s educational consultants and academic staff members, the instructional designers decide on the combination of instructional methodologies to be used within the flexible learning model. Once a project has been approved, a team is constituted, which is made up of a project leader (normally the programme coordinator), project manager, lecturer (subject matter expert), instructional designer, educational consultant, information specialist, graphic designer and other media experts. The instructional designer then designs, develops and delivers a range of learning materials, utilising the most effective media and technologies for the specific learning purpose.

**Web-supported learning**

Online learning via the Internet is one of the delivery modes used, where appropriate, in a flexible learning model. Traditional face-to-face classroom sessions are combined with online interaction, communication, learning facilitation and assessment activities. The philosophy is to use the Internet to optimise and support student learning.

The University implemented the Learning Management System WebCT in 1998 and continues to promote its support and expansion. During 2004 a task team evaluated the future growth prospects and sustainability of WebCT Campus Edition and recommended to the University Executive that the system be expanded. During 2004 a task team evaluated the future growth prospects and sustainability of WebCT Campus Edition and recommended to the University Executive that the system be expanded.

During 2004 there was a slight increase in the number of computer-based tests presented in the computer laboratories on the different campuses. A total of 125 768 tests were presented and 56 departments were involved. 56 418 tests were presented on the main campus (Informatiorium), 1 374 in the IT labs, 13 769 on the Prinshof Campus and 2 207 at Onderstepoort.

Lecturers incorporate e-testing as part of their assessment strategy because it saves marking time, while allowing large groups of students to be tested regularly. Marks are available as soon as the student completes the test and lecturers receive statistics on the questions to assist them in revising the tests regularly and improving the quality of assessment. The students are positive about this method of assessment, mainly because they receive the results and feedback immediately and because marking is objective.

**Multimedia**

Within the UP context, multimedia refers to the use of many different media bound, graphics and animation, for example) within one programme to achieve a specific outcome. Such a programme is traditionally designed as a stand-alone course that is mounted on CD-Rom. The context is usually a specific topic within a course or module and the multimedia product supplements and complements the modes of teaching.

The E-education team is experienced in developing different types of multimedia, including tutorials, simulations, case studies and collections of resources (usually visual). The aim is to make each programme as attractive as possible and to engage the user in active learning.

Seven multimedia projects were completed during 2004, including a substantial update to the CD-Rom for students who have a WebCT course. The design team continues to work on 22 large multimedia projects that are in development. After three years of intense development, TLEI completed one large multimedia project, developed in collaboration with Prof Margaretha Viljoen of the Department of Physiology. The unique features of this project include substantial use of animation to explain difficult concepts in psycho-neurom-immunology. There are 47 animations in total, which are anything from one to five minutes in length. There is considerable interest in this interactive programme from other departments in the University.

The multimedia CD-Roms are increasingly being marketed and sold to other universities and groups, both nationally and internationally. The team approach with a wide diversity of specialists has made it possible to develop award-winning multimedia of a high standard.

**E-testing**

The University of Pretoria implemented e-testing during 2003. Since then e-testing has become an integral part of the assessment strategies of many academic departments. Well-equipped computer laboratories are available on the main campus, the Prins Hof Campus (Health Sciences), Onderstepoort (Veterinary Science) and the Groenloof Campus (Education).

During 2004 there was a slight increase in the number of computer-based tests presented in the computer laboratories on the different campuses. A total of 125 768 tests were presented and 56 departments were involved. 56 418 tests were presented on the main campus (Informatiorium), 1 374 in the IT labs, 13 769 on the Prins Hof Campus and 2 207 at Onderstepoort.

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**Quality Management System (QMS)**

The formal Quality Management System (QMS) for practitioners in TLEI was redesigned and updated. Procedures were reviewed and supporting documents were expanded, for example, a service level agreement for multimedia development was drafted. The system was registered with the European Quality Observatory (EQO), which is an online database of metadata relating to quality approaches in e-learning. This enhanced the generalisability and visibility of the TLEI system. During November 2004 TLEI was invited to present the system and its methodology to the South African Universities Vice-Chancellors Association (SAUVA) Quality Managers Forum.

**Staff training in WebCT**

The Department presents various staff training programmes to equip lecturers to manage and facilitate courses in the online environment. All the courses are University of Pretoria priority courses, which implies that there is no cost to academic departments. The WebCT Basic (High Impact Course) is a one-day course offered ten times a year. Lecturers use the basic tools in WebCT and consider the basic principles of learning model design and online facilitation. The WebCT Intermediate Course is a one-day course offered five times a year, and the two-day advanced WebCT Designer Course is offered twice a year. The latter equips lecturers to become WebCT designers and so to assume full responsibility for the entire design and development exercise.

The Facilitation of E-learning Course is an introductory course on the planning and facilitation of e-learning and was developed towards the end of 2003, for rollout in 2004. The course is based on an experiential learning approach and has both online and face-to-face components. In this way, lecturers experience what it is like to be a student in the online environment. Participants have ample opportunity to practise the skills they need to facilitate learning online, share ideas with colleagues and develop their own preliminary plans for courses they plan to facilitate via the web.

In 2004 a total of 368 lecturers across all faculties attended the WebCT courses and 37 participated in the facilitation of e-learning course. Feedback from the participants was used to improve both content and delivery of the courses.

**Client feedback**

Quality management philosophy includes continuous improvement of processes and products, as well as measuring client satisfaction. During early 2004 a pilot project interviewed a small sample of lecturers who are WebCT users, to ascertain their levels of satisfaction with the medium and the service provided. Student satisfaction was measured at the end of each semester by means of the online WebCT experience survey.

At the end of 2004, 321 students completed the WebCT survey. A fairly high proportion of respondents (59%) have their own computer at home, but 50% of students find it difficult to access a computer on campus when they need it, in spite of the expansion of computer laboratories. Forty-five percent of students have difficulty or can never find a printer on campus. Eighty-seven percent of respondents found the opportunities for ‘anywhere, anytime’ learning on the Web to be convenient.

The feedback from the surveys indicates that students generally welcome the web-supported environment. They request more courses to be supported online and that lecturers should make better use of the functionality of the system.
To enable the University to provide education for the innovation generation and to make the University of Pretoria the university of choice, educational technology on all the campuses of the University should be of the highest standard and always in proper working condition.

To achieve this, the following initiatives were undertaken in 2004:

- A number of lecture halls were upgraded and equipped with fixed data projecting facilities. State of the art audio-visual and control systems were installed in the new Law Building for use from January 2005. A total of 125 lecture halls are equipped with fixed mounted data projectors (35 new installations during 2004). The total number of portable data projectors made available to departments is 223 (65 during 2004).

- The Educational Technology One Stop Service that was introduced during the last quarter of 2003 is fully operational and lecturers are able to request assistance or report technology that does not work properly via telephone or e-mail.

- Vide conferencing facilities were provided for 32 hours and 345 hours of academic course material were broadcast live via satellite to students. Studio productions amounted to 64 hours.

- New initiatives in 2004 included:

  - an electronic loan service and asset control system with bar code scanning
  - a pocket PC experiment
  - an Intervew and Schoolpod experiment for wireless audiovisual presentations

The m-learning (mobile learning) project is described under New initiatives in 2004. New projects envisaged for 2005 are, amongst others, desktop videoconferencing, broadband wireless communication, voice over internet protocol (VoIP) and netmeeting/internet messaging.

The University of Pretoria began using interactive television (ITV) as a teaching support medium in 2004. A dedicated satellite channel was implemented in 1997 to provide ITV through digital satellite television (DSTV). This was followed by a teleTukSAT channel. Due to a number of factors, including the high cost of more than R2.8 million per annum, the low frequency of use by academic departments (only two departments in 2003/4) and the University’s budget constraints because of the new State funding framework, the University Executive decided to close the TeleTukSAT channel at the end of 2004.

### Services at satellite campuses

The Department provides core services on a decentralised basis to the satellite campuses. There is a team of E TLEI personnel at the Prinshof Campus (Health Sciences) and four staff members at Onderstepoort (Veterinary Science). Some support, currently limited to educational technology services, is also provided on the Groenkloof (Education) and Mamelodi campuses.

There are two outcomes of this decentralisation. Firstly, there is greater awareness of the services provided by TLEI, accompanied by a steady increase in requests for various services not previously utilised by staff on the satellite campuses. Secondly, lecturers appreciate not having to travel to the main campus in order to access services.

### Project Office

A project management methodology is used to manage and direct the development services of E-Education. A dedicated Project Office supports these project management processes. The Project Office is primarily responsible for all correspondence related to projects, the maintenance of the management information system and the electronic backup of all correspondence.

Management reports are distributed to project leaders, deans of faculties and the University Executive, but any staff member interested in obtaining information about a specific project may approach the Project Office for a report. Information obtained from this system enables E-Education to conduct strategic planning for the continued use of technology at UP.

During the processes within the Project Office were streamlined and re-aligned in conjunction with the E-support Office planned for 2005. The latter will provide technical support with respect to e-learning for lecturers and students, via a one-stop e-mail address.

### Graphics, video and photography

The graphics, video and photography sections continue to provide specialised services to all the departments of the University. Thanks to the spectrum of technological options that are becoming available and also more affordable, visual and audio stimuli can be utilised in the didactic process to enhance learning. The Department’s creative experts assist in capturing concepts in audio and/or visual forms, which range from watermarked images and animations to photographs, complex graphic images in learning material provided to students. This promotes visual literacy and enhances the learning experience.

Graphic services include the design of pamphlets, brochures, advertisements, exhibition material, electronic presentations, posters, transparencies and slide shows, as well as the layout of reports and publications. Assistance with the provision of graphics for web sites, presentations, animations and course material, as well as the production of graphics for multimedia and WebCT courses is provided. In 2004 a poster that was designed and produced by staff of the Graphic Department, in conjunction with the subject expert, was selected as the winner at an international conference.

Photographs are used for instructional, research and promotional purposes and range from photographs of scientific equipment and specimens to portraits. Digital photography is also done, which is used for both web and multimedia programmes. Key services offered include studio and location photography, copying of artwork, illustrations for books, duplication of slides, computer-generated slides, macro photography, stereo-microscope photography, scanning of slides and photographs (reprinting) and writing them to CD, manipulation and restoration of photographic film processing (slides, colour and black-and-white negatives) and the production of photo-quality A4 and A3 prints on various grades and weights of paper. The formats include 35mm and 25 slides and negatives, in colour and black-and-white and digital images (ikonon DQ) at 300dpi in *tiff or *jpg format.

Audio-visual services include video production, tape duplication services and the conversion of video to electronic format (MPEG), as well as the provision of sound recording and editing services. Services involved in a typical video production include script writing, filming, editing video and audio and duplicating the final product. Typical examples of where these services might be needed include promotional videos, product videos, information videos, educational videos and the filming of events.

Tape duplication services include making multiple VHS copies from VHS, DV, DVCam, Betamax, Video 8, Hi-8, Betacam and U-Matic, as well as conversions from NTSC Video to PAL Video and from PAL to NTSC. Multiple copies from audio cassette tapes are also made. Conversions of video to MPEG include the digitisation of video footage for use in multimedia programmes, PowerPoint presentations and for the web.

Sound recording and editing services cover general sound recording, voice recording, the recording of audio onto CD, transferring UP records onto CD and the writing of all recordings to CD.

Advances in technology make it possible to include increasingly sophisticated multimedia video, sound, animation, digital photographs, complex graphic images in learning material provided to students. This promotes visual literacy and enhances the learning experience.
The University of Pretoria has established service points to provide access to information, administrative services, tests and examination opportunities for off-campus students.

UP service points

The Department does not have any established regional learning centres in the true sense of the word, but it manages UP service points in Pretoria, Wilbank, Nelspruit, Polokwane, Mmabatho and Rustenburg. The following services are provided:
- administrative support (enquiries, applications, courier services, photocopies, e-mail, fax, etc.) with a facilitator on site;
- tests and examinations;
- video viewing facilities; and
- occasional tutorials on request.

Venues are hired from higher education institutions such as Unisa, the Tshwane University of Technology (TUT) and some of the Further Education and Training Colleges.

Off-campus examinations

Postgraduate students are not all able to be on campus as full-time students and an increasing number apply to write examinations nearer to their home and workplace. In the light of closer partnerships between tertiary institutions, off-campus examination logistics have become a collaborative enterprise between UP, TUT and Unisa. The MEM, MFM, MBA, BCom (Aviation) and MCom (Taxation) programmes, programmes of the Centre for Augmentative and Alternative Communication (CAAC) and the departments of Social Work, Nursing, African Languages and Afrikaans, make use of the off-campus examination infrastructure.

Decentralised off-campus examinations (both national and international) increased as shown in the table:

<table>
<thead>
<tr>
<th>Year</th>
<th>2000</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
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<tbody>
<tr>
<td></td>
<td>798</td>
<td>1274</td>
<td>291</td>
<td>317</td>
</tr>
</tbody>
</table>

Discontinuation of partnerships with external providers

The teach-out agreements were managed in such a way that all the students of the University that had enrolled during the partnership period were provided with sufficient learning opportunities and services to complete their studies successfully by 31 December 2005. Additional support structures and services were introduced during 2003 and 2004 to improve the success rate of pipeline students as far as possible. A significant number (21.87%) of students graduated from these partnership programmes up to December 2004.

The University has for several years been involved in upgrading the quality of teaching and learning in schools through the TeleTuks School Project.

The TeleTuks Schools Project broadcasts school level subjects on weekday afternoons to 89 schools (with sponsored equipment) in Mpumalanga, Limpopo, Northwest and Gauteng. The average daily attendance at these schools for the broadcasts was approximately 2 300. Week-long winter and spring schools were also broadcast during June and September. All schools in southern Africa that are equipped with a satellite dish and decoder could receive the broadcasts.

Appropriate information, supplemented by information literacy programmes, contributed to the success of students. The national average matric pass rate since the introduction of the TeleTuks ITV programmes to schools improved as shown in the table:

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<tr>
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There were two major reasons why the TeleTuks Schools Project was phased out and closed down at the end of 2004. The first was that other private providers of broadcasts and materials to schools, like Mindset and Liberty Life, were overwhelming the market. Mindset, for example, had more than 750 schools in their broadcast programmes by mid-2004. The amount of resources and funding that Mindset has at its disposal makes it the preferred supplier. The second reason was that the TeleTuks Schools Project was dependent on the TeleTuks satellite channel, which was phased out at the end of 2004.

As part of its community service programme, the University will continue with alternative projects aimed at the development of teachers and teaching quality in schools. The Faculty of Education is investigating a joint project, in collaboration with Mindset, for the in-service training and development of teachers regarding the use of educational media and video materials to enhance classroom teaching.
The importance of research and development in higher education is evident. Changes in the higher education environment, combined with the fact that education innovation needs to be based on educational research, have emphasised this need.

Since the establishment of the Department, the staff members of Telematic Learning and Education Innovation (TLEI) have become increasingly involved in education-related research projects of a diverse nature. The Unit for Action Research and Development has the following responsibilities:

- Task-specific research within TLEI: internal activities that typically form part of this focus include identifying, prioritising and coordinating focal research areas relevant to TLEI; promoting, supporting, facilitating and coordinating research projects in TLEI; and taking responsibility for special research projects on behalf of TLEI.

- Intra-departmental coordination of research activities

  Action Research and Development has become a household activity in TLEI. Several projects are registered and active. These projects are either directed towards the enhancement of TLEI-related support functions, processes and products, or aimed at broader institutional development.

Study success

The year under review was characterised by an evolving awareness of the strategic importance of study success (student attrition, retention and throughput rates) with particular reference to undergraduate education. This was amplified by changes in the State subsidy formula for the financing of higher education. A number of projects that were originally initiated as stand-alone action research projects gradually converged to form key elements of a coherent strategic plan to address study success in respect of the University’s primary client: its students. This led to strategic collaboration between TLEI and other key roleplayers such as the Bureau for Institutional Research and Planning (BIRAP), the Department of Management Services, the Client Service Centre (SCS) and Student Support Services. Research in several TLEI focus areas benefited from this collaboration.

Study success profiles were developed for each faculty and a number of consistent trends were identified. These profiles were segmented according to school, department and programme, and included analyses at module level. The identification of risk modules (those with a significantly higher attrition and lower pass rates) led to some in-depth qualitative action research in the respective faculties in an attempt to identify potential reasons for these trends. In a number of faculties more content-specific research, based on these profiles, was initiated. This included semester versus module studies in the Faculty of Humanities and a comparison between different norms for student selection in the School of Dentistry.

The study success research was presented at an international higher education conference (Improving University Teaching, in Berne, Switzerland). The research was also brought to the attention of the Committee of Vice-Principals. A high-level task group was subsequently commissioned to develop a study success strategy for the University as a whole during 2005.

Towards an assessment policy

A literature research project on assessment policies in higher education institutions was completed during the year under review. The research benchmarked best practices included in institution-wide assessment policies in leading international higher education institutions. A framework was completed within which such a policy could be developed for the University.

Student feedback on the quality of education

The framework for the evaluation of teaching quality that was developed in 2003 was expanded with the completion of a student feedback evaluation mechanism to enhance the quality of teaching presented at the University. Research focused on two areas:

- Undergraduate education in the contact scenario; and
- the development of feedback mechanisms on the quality of practical training.

The second phase of the evaluation of the performance of the current student feedback questionnaire was completed in 2004. The results of the research conducted in 2003, in which a factor analysis of a stratified sample of student responses was completed, led to the adaptation of the questionnaire. New questionnaire items were designed to replace those that had been identified as inadequate. The 54-item instrument that evolved from this stage, was subjected to an innovative two-way translation exercise to ensure that the instrument was interpreted in an equivalent manner by both English and Afrikaans speaking students. The relative importance of each item in measuring teaching quality was then determined through a stratified sample of English and Afrikaans speaking students, as well as the Education Innovation Committee (based on the principle of a ‘Circle of Wise People’, representing lecturers). These inputs were superimposed and educational specialists revised the items and excluded certain items based on their educational contribution. The result was a 30-item instrument.

This research project will be completed in 2005, following a repeat factor analysis of the shorter version of the instrument.

With respect to optimising and gaining feedback on the quality of practical teaching in relevant faculties, various initiatives enjoyed small but significant success during 2004. The context-specific nature of practical work in different disciplines prompted a shift from the design of a generic feedback instrument towards context-specific instruments in order to elicit useful feedback. The Department of Communication Pathology developed a feedback instrument and reconsidered its current practical programme during a workshop held on Spring Day in 2004. The scene was set in a number of other schools and departments to address this issue during 2005.
International competitiveness is one of the University’s important strategic drivers. Interaction and collaboration at international level is therefore strongly encouraged. In this respect, the Department of Telematic Learning and Education Innovation (TLEI) is involved in a number of projects aimed at providing technical and educational support to the international academic community.

Imperial College, London

A scholarship programme and partnership development project is in place between the Imperial College London (UK) Distance Learning Programme (ICL-DLP), Wye Campus and the Department of Agricultural Economics, Extension and Rural Development (AEERD), University of Pretoria.

In December 2002, ICL-DLP signed an agreement with the Commonwealth Scholarship Commission (CSC) to provide Commonwealth scholarships by distance learning to eligible students. The agreement was based on a proposal submitted to the CSC by ICL-DLP in January 2002. In terms of the agreement, students from Commonwealth countries within the Southern Africa Development Community (SADC) were invited to apply for all scholarships to study an MSc offered by distance learning. The proposal also included partnership development arrangements with ICL-DLP to provide local support to the scholarship programme.

Before the completion of the agreement in 2002, the project team carried out various informal and formal activities to put systems in place that would enable Commonwealth students from SADC countries to be recruited for the scholarships. During the first year (2002), ICL-DLP in collaboration with AEERD and TLEI, completed the marketing for the distance learning scholarships, as well as the administrative process of processing applications and selecting students. A large number of applications were received and reviewed. The CSC met in December 2002 and 23 scholarships were awarded. An online portal was designed and developed using open source software.

A pilot project was launched to evaluate the possible implementation of synchronous software to support communication between project team members and to extend the use of the portal. Synchronous software supports international collaboration towards furthering the CSC’s aims of funding scholarships and developing strong international partnerships.

In order to sustain partnership development, the partners drew up a vision and mission statement and a strategy document in 2003. The document outlines how activities of the partners need to be resourced and scheduled for future collaboration. The partners envisage an accessible and truly international joint-study programme that reflects cultural diversity, builds capacity and enables students to learn and apply knowledge in their workplace in order to address and solve development problems.

The aim of this project is to provide a discussion platform where doctoral students from the aforementioned universities can share ideas on their studies. By using the LUVIT learning management system, students can communicate with one another and, through cooperative learning, improve the quality of their studies.

Prince Leopold Institute for Tropical Medicine, Antwerp, Belgium

The Department has been involved in supporting the Department of Veterinary Tropical Diseases (Faculty of Veterinary Sciences) in developing a new masters’ degree, which will be delivered predominantly online. Students will attend contact sessions for the purpose of completing practical and laboratory work required for completion of the programme. The Department of Veterinary Tropical Diseases is working in collaboration with faculty members from the Prince Leopold Institute for Tropical Medicine (ITM) in Antwerp, Belgium. TLEI provides support for faculty members from this institution. Academic staff members have attended training courses in both South Africa and Belgium. Many of the modules developed for this masters’ programme will also be offered as online short courses for continuing professional development (CPD). The first courses will commence in March 2005.

The aim of this project is to provide a discussion platform where doctoral students from the above-mentioned universities can share ideas on their studies. By using the LUVIT learning management system, students can communicate with one another and, through cooperative learning, improve the quality of their studies.

University of Bergen, Norway

The goal of the Norwegian Council for Higher Education’s Programme for Development Research and Education (NUFU) is to further competence in research and higher education in developing countries. The University of Bergen, Norway, involved six universities in southern Africa in this project: the University of Namibia, the University of Botswana, the University of Zimbabwe, the University of Zululand, Universidade Pedagogica (Maputo, Mozambique) and the University of Pretoria (Faculty of Education and TLEI).

The aim of this project is to provide a discussion platform where doctoral students from the above-mentioned universities can share ideas on their studies. By using the LUVIT learning management system, students can communicate with one another and, through cooperative learning, improve the quality of their studies.
A number of new initiatives were launched within the various units of the Department of Telematic Learning and Innovation (TLEI) during 2004, which will contribute to promoting excellence in education at the University of Pretoria.

**Education Innovation**

**Teaching large classes**

Increasing class sizes in faculties and the resultant unmanageable lecturer/student ratios (second and third year classes of 700 to 900 in size) have led to much frustration and possible declines in quality in such teaching, learning and assessment situations. This project examines the teaching of large classes and the various techniques associated with it. One such technique, pioneered by Dr Richard Felder at the University of North Carolina in the USA, is that of active learning. His well documented and researched approach led TLEI to engage in a useful one hour video conference late in 2004. This was attended by 35 academic staff from five faculties.

**Research writing**

Various requests were received to facilitate research writing and support was given to postgraduate students as well as to research supervisors. It is expected that the need to support research writing will continue to grow.

**Study guides**

The quality of study guides is currently a strong focus and good progress was made with this project during 2004. This initiative will continue to be of high importance in the near future and guidelines will be developed further.

**Students with special needs**

A network of stakeholders was established with interests regarding students with special needs. These students and their lecturers need specialised support. This network includes role players from TLEI that are putting measures in place to support teaching staff to accommodate these students’ special requirements in the teaching and learning environment.

**Improving teaching and learning**

The Department hosted a seminar in September 2004 on the topic Improving Teaching and Learning in the UK and SA. Delegates responded positively and left with insight into developments in the United Kingdom and a better understanding of strategies to improve teaching and learning in general. In addition, the Department collaborated with the Quality Unit at UP in developing educational criteria for the evaluation of academic modules.

**Diversity**

The Department initiated a Diversity Committee grounded on the principles of an inclusive community. Needs analyses were conducted.

This inclusive community project will be launched in 2005. A representative from UP’s Employment Equity Office joined the founding committee. This project has much potential to assist faculties as well as TLEI in the way forward.

**E-learning**

**E-learning systems training for support staff**

One of the aims of TLEI is to support teaching at UP by means of information and communication technology. During April and May 2004, the role of academic support staff in academic departments was investigated. The focus was on the extent to which existing e-learning systems (Lecturers Online, Students Online and WebCT) are used by support staff to improve the effectiveness and efficiency of their student support activities.

Interviews were conducted with the support staff of two departments in the Faculty of Economic and Management Sciences. Processes were identified that could be improved by using the existing e-learning systems, while saving time and costs.

The need for an e-learning systems training course for academic support staff became evident. A curriculum was developed to cover all aspects of administrative functions in e-learning systems. This course is a UP priority course.

**Collaboration with the Academic Information Service (AIS)**

Several projects were undertaken in collaboration with the Academic Information Service (AIS) during the year under review.

The project to eradicate plagiarism is aimed at sensitising academics to plagiarism and making them aware of the extent of the problem. The team participated in the evaluation of software that can trace such offences. Upon evaluation, it was decided to recommend the web-based Turnitin software.

Turnitin was tested within the University of Pretoria and met the necessary requirements, as laid down by the working group. The software is already being used in the School for Information Technology. Faculties are encouraged to budget for this software and to purchase the necessary licences.

The AIS and TLEI took the initiative to establish and manage an institutional repository on behalf of the University. The project team took a number of decisions, specifically with regard to the identification of digital objects, metadata standards, digitising standards, focus areas and suitable software.

**E-portfolio**

The e-portfolio system being developed will create a digital record of the learners’ achievements. Substantial progress was made with regard to this project during 2004. The project (and system) was firstly named the Electronic Student Academic Portfolio, known and referred to as eALP. Development was outsourced to a private company. The entire project is being managed by the Department of Information Technology. TLEI and the Skills Laboratory, as representative of the Faculty of Health Sciences, have also been heavily involved. The project development has been divided into three phases. Phase 1 includes creating commenting for use during assessment, development and use of rubrics, creating and using groups, setting up assignments (this function has many sub-functions) and the assessment of assignments. The development of each function has followed a strict cycle of initial development, first round of user testing, refinement and more user testing. Integration testing is planned for MayJune 2005 and the project will be rolled out across the entire campus in July 2005.

Challenges for 2005 include the development and rollout of the training needed to use the system.
The current computer-based testing system used by UP, Question Mark Designer, is somewhat outdated and has various constraints. A task team investigated a variety of possible testing systems that could be purchased in order to replace it. No “off the shelf” system was available that met all the needs of the users from the different faculties, especially the Faculty of Health Sciences. An extensive list of requirements, based on the needs of the users and an in-depth literature review, was developed. It was decided to contract a local company, Intweb Design, to develop the system according to these specifications.

The first draft of umFundi was installed on the UP server on 31 November 2004. Comprehensive testing is planned for the first three months of 2005, including functional testing, debugging, security testing and stress testing. Implementation of umFundi as the official testing system of the University is planned for the second semester of 2005. Other higher educational institutions such as Medunsa and the University of Johannesburg are interested in this system, since UP is regarded as one of the leaders in the use of computer-based testing.

Electronic Comprehensive Patient Care and Education System

The Electronic Comprehensive Patient Care and Education System (eCPCES) will replace the paper-based, standardised examination, diagnosis and treatment planning. The Department of Restorative Dentistry, TLEI and a committee includes personnel from certain academic departments, TLEI and the Department of Information Technology. The software packages Centre, Interline and Wimba were evaluated.

Two academic departments made extensive use of the trial software during 2004:

- The Department of Taxation (Faculty of Economic and Management Sciences) explored the possibilities of using Horizons and Wimba for postgraduate students.
- The Centre for Business Ethics (Graduate School of Management) used Centre to present an MPhil module in International Business Ethics.

It is evident that synchronous software can support international collaboration in many ways and even save costs. The evaluation of synchronous software will continue in 2005.

Educational Technology

M-learning pilot projects

Mobile learning (m-learning) is a natural extension of e-learning and has the potential to make learning even more widely available and accessible than in existing e-learning environments. The role that communication and interaction play in the learning process is a critical success factor. M-learning offers opportunities to optimise interaction between lecturers and learners, among learners and among members of communities of practice (COPs). Wireless and mobile technologies also make it possible to provide learning opportunities to learners that are either without infrastructure for access (for example, rural learners) or continually on the move (for example, business professionals).

Good progress was made with several m-learning pilot projects:

- The use of cell phones and especially SMSs in three of the Faculty of Education’s paper-based distance learning programmes was expanded during 2004 to include academic support and not only administrative support as during 2003.
- The use of personal digital assistants (PDAs) in the clinical assessment of medical students in the Faculty of Health Sciences has been very successful with positive results.
- The use of laptops and PDAs in a wireless network environment for postgraduate students in the Faculty of Engineering, Built Environment and Information Technology is in progress.
- The SMS project in the three paper-based distance learning programmes of the Faculty of Education BEd (Hons), ACE (Education Management) and ACE (Special Education Needs) is a world first. Support is offered to students in rural areas where there is little or no access to e-learning. Although less than 2% of the students have access to the Internet, more than 98% of them own mobile phones.

This pilot project provides an example of how mobile technologies may be successfully used to provide learning support to rural distance learning students in Africa, especially because these students do not have access to the Internet. Few people thought that e-learning would have an impact in rural areas. The infrastructure is sometimes so poor in these areas that the nearest post office can be more than 60 kilometres away. M-learning has brought e-learning to the rural communities of Africa - to learners that only a few years ago would never have imagined being e-learners. Africa is leapfrogging from an unwired, minimal e-learning infrastructure to a wireless m-learning infrastructure.

Action Research

Towards a programme for the training of postgraduate supervisors

The completion indices for all postgraduate programmes were determined during the year under review. This confirmed the concerns of many faculties. The result was the inclusion into the Skills Development Plan of a programme to train newly appointed lecturers in postgraduate supervision. Negotiations to design, develop and implement such a training programme were initiated. An experimental questionnaire on the quality of the postgraduate study experience will be launched on the web in 2005.
International conference presentations


Brown, TH. (2004). Chairperson: EDEN European Distance Education Network research workshop: From Conventional to Open, Distance and e-learning. Oldenburg, Germany, 4 to 6 March.


Brown, TH. (2004). The state of mobile learning research in Africa. Invited presentation at the Mobile Learning Research Symposium, Edmonton, Alberta, Canada, 7 to 7 December.


Du Plessis, GJ. (2004). Segmenting the origins of student attention: from institution to module, Improving University Teaching, Bern, Switzerland, 21 to 23 December.


International workshop presentations


National conference presentations


Jordaan, AJ. (2004). Using Web support to facilitate a masters programme in wildlife management, CITTE Conference, Cape Town, 1st to 3 September.

Jordaan, AJ. (2004). The use of WebCT to facilitate a postgraduate program, WebCT Users Forum, Stellenbosch, 5 to 6 April.


Boon, JA. (2004). Visit to the University of Gujarudd, India.


Publications


Visitors to TLEI

Alamoudi, S M, Dr Centre for Forensic Science, King Fahd University of Petroleum, Saudi Arabia
America, C, Ms. Cape Technikon, South Africa
Andersen, T, Prof. Centre for Distance Education, Athabasca University, Canada
Ansary, A, Prof. Open University Malaysia, Malaysia
Anwar, A, Prof. Open University Malaysia, Malaysia
Baechi, TR, Ms. NSCA Certificate Commission, USA
Bartlett, P, Dr. De Beers, South Africa
Beniest, J, Mr. Centre, Educational and Training Unit, World Agro-forestry, Kenya
Benneth, U, Dr. Centre for Distance Education, University of Oldenburg, Germany
Boughey, C, Prof. University of Rhodes, South Africa
Brown, A, Ms. Centre for Learning, Teaching and Development, University of the Witwatersrand, South Africa
Collins, T, Mr. WebCT, United Kingdom
De Bortoli, W, Dr. University of California, USA
De Foggio, E, Mrs. Division of E-learning, University of the Free State, South Africa
De Morais, D, Dr. Universita Degni Studi di Torino, Department of Production Animals, Umbria, Italy
De Munnik, E, Prof. Everest Cybercity, South Africa
Dippenaar, A, Prof. University of the Free State, Division of E-learning, South Africa
Engelbrecht, H, Prof. University of Stellenbosch, South Africa
Govanes, V, Distance Learning Programme, Imperial College at Wye, United Kingdom
Gregson, J, Mr. Department Educational Programme: Distance Learning Programme, Imperial College at Wye, United Kingdom
Grulich, N, Ms. The Global Business and Technology Think Tank, Future Work, South Africa
Hairudin, H, Prof. Open University Malaysia, Malaysia
Howie, K, Distance Learning Programme, Imperial College at Wye, United Kingdom
Isacs, S, Ms. South African Qualifications Authority, South Africa
Jansen van Vuuren, C, Ms. Potchefstroom University for CHE, AS, South Africa
Jechica, G, IT Project Manager, Trade Academy Konstanz, Germany
Kjerbergs, T, Mr. Department of Psychology and Education, University of Bergen, Norway
Krueger, M, Dr. Centre for Teaching, Learning and Assessment, Rand Afrikaans University, South Africa
Law, D, Prof. Head of Information Resources Directorate, University of Stellenbyshe, United Kingdom
Le Roux, A, Mr. Bureau for Learning Development, Unisa, South Africa
Le Roux, K, Mr. Potchefstroom University for CHE, AS, South Africa
Lillejorg, S, Prof. Department of Psychology and Education, University of Bergen, Norway
Lotter, A, Ms. Potchefstroom University for CHE, ITB, South Africa
Marais, E, Mr. Division of E-learning, University of the Free State, South Africa
Marasa, K, Mr. University of Fort Hare, United Kingdom
Munting, D, Ms. Cape Technikon, South Africa
Mutapi, M, Mr. Division of E-learning, University of the Free State, South Africa
Musa, R, Ms. Academic Planning and QA Officer, University of the Witwatersrand, South Africa
Murray, L, Ms. Academic Planning Office, University of the Witwatersrand, South Africa
Nkomo, LR, Prof. Academic Research and Consultancy, National University of Science and Technology (NUST), Zimbabwe
Nzama, B, Dr. University of Fort Hare, South Africa
O'Reilly, M, Uganda Montes University, Uganda
Orr, M, Prof. Director: Centre for University Learning, Teaching and Development, University of the Witwatersrand, South Africa
Ponglly, R, Mr. Information Technology, Rand Afrikaans University, South Africa
Pereira, E, Ms. Education, Science and Technology, Ministry of Higher Education, Mozambique
Pernston, H, Prof. Commonwealth Scholarship, United Kingdom
Pienaar, A, Mr. Division of E-learning, University of the Free State, South Africa
Potgieter, K, Mr. SAICA, South Africa
Prabhuvis, R, Mr. Potchefstroom University for CHE, ITB, South Africa
Rao, S, Ms. Education and Training Unit, World Agroworlds Centre, Kenya
Rick, C, Ms. Adviser International Projects, Trade Academy Konstanz, Germany
Rijs, B, Prof. International Relations, Open University in the Netherlands, The Netherlands
Scott, I, Prof. Council for Higher Education, University of Cape Town, South Africa
Smith, B, Prof. Higher Education Academy, Council on Higher Education, United Kingdom
Stack, J, Ms. University of Zimbabwe, Zimbabwe
Surty, E, Mr. Deputy Minister, Minister of Education, South Africa
Turkington, D, Ms. Journalism, Durban Institute of Technology, South Africa
van Allen, T, Mr. University of Cape Town, South Africa
Van de Walle, E, Mr. Open University of the Netherlands, The Netherlands
Van der Westhuizen, J, Dr. Centre for Higher Education Studies and Development, University of the Orange Free State, South Africa
Van Lim, J, Mr. Administrator External Funds, Prince Leopold Institute of Tropical Medicine, Antwerp, Belgium
Venter, P, Ms. Division of E-learning, University of the Free State, South Africa
Van Oostreytje, C, Prof. University of Oldenburg, Germany
Vorster, D, Prof. Vice Rector: Teaching and Information Systems, Rand Afrikaans University, South Africa
Yonkosky, R, Dr. Gardner, USA
Zastrocky, N, Mr. Vice President and Research Director, Garber, USA
Zawacki, O, Mr. Centre for Distance Education, University of Oldenburg, Germany
Zulu, M, Ms. Quality Assurance Co-ordinator, University of the Witwatersrand, South Africa

Education Innovation Awards 2004

A CD-Rom containing video clips of the nominees and their education innovations is available from Dr Rhina Detonti (Tel: 420-3505).

Laureate awards:
Prof ET Health, Department of Tourism Management, The creation of an authentic learning environment.
Prof F Le Roux, Department of Construction Economics, Community-based learning in a construction economy.
Prof FI Leuschner & Prof JH Hanekom, Department of Electrical and Electronic Engineering, Engineering an innovative learning environment.
Prof TI Treadwell, Skills Laboratory. Exciting assessment methods in the Health Sciences.

Certificate for education innovation
Department of Anatomy (Prof JH Meiring). The Anatomy Portal on WebCT - a rich learning environment.
Ms AC Botha, The Department of Early Childhood Education. Innovative and effective learning facilitation and assessment techniques.
Prof CJ Botha & Prof E Venter, The Department of Para-clinical Sciences. CD-Rom: Plants poisonous to livestock in Southern Africa.
Prof DF Robinson & Prof F le Roux, The Centre for Evaluation and Assessment. Innovative facilitation of learning in Research Management.
Ms RC du Bruyn, Department of Community Dentistry. Goal-oriented assessment in Community Dentistry.
Department of Mechanical and Aeronautical Engineering (Prof SJ Howie). Support for local learning in Mechanical and Aeronautical Engineering.
Prof FJ Meyer, Department of Perspective. Developments in Physiology at UP.
Ms NR Ponelis & Mr J Prieto, Department of Informatics, Simulating an authentic organisational context to facilitate learning in Information Systems.
Practical Law 400 (Ms FS Haupt), The University of Pretoria Law Clinic. Authentic learning and Assessment.
Dr F Robinson, Department of Occupational and Environmental Health, Community-based learning and authentic assessment.
Prof C Scholtz, Department of Neurology, Learning how to perform a neurological examination.
Prof NC van Wyk & Mr SM Muyay, Department of Nursing Science, The programme: Global Patterns of Health Problems and Health Hazards.
Training provided

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| Multimedia projects completed in 2004

<table>
<thead>
<tr>
<th>Department</th>
<th>Title</th>
<th>Project Leader</th>
<th>Instructional Designer</th>
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<tr>
<td>TLEI</td>
<td>Student CD-ROM New version</td>
<td>Dr J Fresen</td>
<td>Johan Slabbert / Lana Venter</td>
</tr>
<tr>
<td>Physiology</td>
<td>Stress and Psycho-neuro-immunology (PNI)</td>
<td>Prof R Viljoen</td>
<td>Herrieke Weimarns / Gaby Prebrius</td>
</tr>
<tr>
<td>Physiology</td>
<td>Sports Vision Testing</td>
<td>Dr R du Toit</td>
<td>Kim Zimmerman / Anne Strehler</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>Practice Management</td>
<td>Dr J Marx / Prof</td>
<td>Bliz</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>Family Oriented Patient Care</td>
<td>Dr M van Ruyzen / Prof</td>
<td>Bliz</td>
</tr>
<tr>
<td>Family Medicine</td>
<td>Philosophy</td>
<td>Dr R van Ruyzen / Prof</td>
<td>Bliz</td>
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<tr>
<td>UP Archives</td>
<td>Reflections in Time - UP - 100 years on</td>
<td>Dr K Harris</td>
<td>Liana Vente</td>
</tr>
</tbody>
</table>

Schools participating in the TeleTuks Schools Project

Gauteng
- Alexander Career Directed Centre
- Amogelang Secondary School
- Comemstone College
- CS Swart
- Dl Peta
- Flavius Mareka
- Gatang Comprehensive School
- Gelukdal
- Holmbranang Senior Secondary School
- Holy Trinity
- Jafa Mahangu
- Makhosini Secondary School
- Memezelo Secondary School
- Phelindaba Preparatory School
- Prestige College
- Ratanda Secondary School
- Retumene Secondary School
- Ribane Lakaa Secondary School
- Rondelwuta Secondary School
- Saulkridge Secondary School
- Vlakfontein Technical College

North West
- Bakwamso Secondary School
- Holy Trinity (Witwaterst)
- Mabopane High
- Malagte High School
- Maths, Science, Commerce & Comprehensive Training
- Phill, Moroka High School
- Raksepo
- Rustenburg Education College
- Sekukulele High School
- Sehlapagatla Secondary School

Limpopo
- AB Mabapa Secondary School
- Bakenberg High School
- Baropodi Community School
- Bokwamso Secondary School
- EDL Rampola
- Giyani High School
- Hoxani College
- Hudson Mtsamwi Secondary School
- Lebogakgomo Commercial College
- Leilo High School
- Mabogopedi Secondary School
- Magakala District Office
- Mahlahlalane High School
- Makiele Second School
- Malumulele
- Mapoikane Secondary School
- Mapulaneleng College
- Maths, Science & Technical Education College

Matadi High School
- Matame Matadi Secondary School
- Mabwisi Secondary School
- ME Malagto Secondary School
- Mhatsena Secondary School
- Mhlabadi Secondary School
- Modjadji Community Centre
- Modubase High School
- Mosone a Mabola
- Mosopane College
- Morokaoale Secondary School
- Mphelisi
- Napo a Ngwato
- Nasutiro College of Education
- Ntshikazi
- Otoro Bank
- Phagameng High School
- Phala High School
- Phalatsetse Senior Secondary School
- Phelile Senior Secondary School
- Reiso Thshane
- Sekukulele College
- Selatanza Secondary School
- Sekolole Secondary School
- Sothofole Community Centre
- Tabudi Secondary School
- Thasululile Learning Centre
- Thstimane College
- Venda College of Education

Computer-based testing

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<tr>
<td>Health Sciences</td>
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Number of tests created

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<td>Onderstepo</td>
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Number of departments / groups

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</table>
### TLEI Executive Team

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOON JA Prof [Hans]</td>
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<td><a href="mailto:jaboon@up.ac.za">jaboon@up.ac.za</a></td>
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</tr>
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</tr>
<tr>
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<td><a href="mailto:irene.leroux@up.ac.za">irene.leroux@up.ac.za</a></td>
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<td><a href="mailto:dorette.victor@up.ac.za">dorette.victor@up.ac.za</a></td>
</tr>
</tbody>
</table>

### Operational Office

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCCABE M [Magda]</td>
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</tr>
</tbody>
</table>

### Action Research and Development

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>DU PLESSIS Gi Dr [Gerhard]</td>
<td>Specialist: Action R&amp;D</td>
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<tr>
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<td><a href="mailto:jeanette.bornman@up.ac.za">jeanette.bornman@up.ac.za</a></td>
</tr>
</tbody>
</table>

### Educational Support Team: Engineering, the Built Environment & Information Technology, Natural & Agricultural Sciences, Economic and Management Sciences and Graduate School of Management

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>E-mail</th>
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</thead>
<tbody>
<tr>
<td>HAUP S [Sanet]</td>
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<td>+27 12 420 4285</td>
<td><a href="mailto:sanet.haupt@up.ac.za">sanet.haupt@up.ac.za</a></td>
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</tr>
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</tr>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
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</tr>
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<td><a href="mailto:gaby.pretorius@up.ac.za">gaby.pretorius@up.ac.za</a></td>
</tr>
<tr>
<td>SLABBERT [Johan]</td>
<td>Instructional Author</td>
<td>+27 12 420 3825</td>
<td><a href="mailto:johan.slabbert@up.ac.za">johan.slabbert@up.ac.za</a></td>
</tr>
<tr>
<td>STEYN AB Dr [Dolf]</td>
<td>Chief Education Consultant</td>
<td>+27 12 420 3870</td>
<td><a href="mailto:dolf.steyn@up.ac.za">dolf.steyn@up.ac.za</a></td>
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### Educational Support Team: Health Sciences and Veterinary Science

<table>
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<th>Name</th>
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<tbody>
<tr>
<td>STREHLER A [Anne]</td>
<td>Head: E-Learning and Education Consultation</td>
<td>+27 12 420 4349</td>
<td><a href="mailto:anne.streher@up.ac.za">anne.streher@up.ac.za</a></td>
</tr>
<tr>
<td>DANNHEIMER S [Sigi]</td>
<td>Senior Graphic Designer</td>
<td>+27 12 354 2395</td>
<td><a href="mailto:sigi.danneheimer@up.ac.za">sigi.danneheimer@up.ac.za</a></td>
</tr>
<tr>
<td>DE BRUYN E [Erika]</td>
<td>Senior Instructional Designer</td>
<td>+27 12 354 2267</td>
<td><a href="mailto:erika.debruyne@up.ac.za">erika.debruyne@up.ac.za</a></td>
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<tr>
<td>HEFER, R [Rika]</td>
<td>Manager: Graphics Department</td>
<td>+27 12 354 2395</td>
<td><a href="mailto:rika.hefer@up.ac.za">rika.hefer@up.ac.za</a></td>
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<tr>
<td>KOTZE M [Magdaleen]</td>
<td>Instructional Designer</td>
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<tr>
<td>KRUGER K [Karen]</td>
<td>Administrative Assistant</td>
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<tr>
<td>MAYHEW E [Estelle]</td>
<td>Senior Graphic Specialist</td>
<td>+27 12 529 8097</td>
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<tr>
<td>MOSTERT E [ElMarie]</td>
<td>Project Manager</td>
<td>+27 12 529 8251</td>
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</tr>
<tr>
<td>PICKWORTH GE Dr [Glynis]</td>
<td>Chief Education Consultant</td>
<td>+27 12 354 3009</td>
<td><a href="mailto:glynis.pickworth@up.ac.za">glynis.pickworth@up.ac.za</a></td>
</tr>
<tr>
<td>REYBURN D [Duncan]</td>
<td>Graphic Designer</td>
<td>+27 12 529 8097</td>
<td><a href="mailto:duncan.reyburn@up.ac.za">duncan.reyburn@up.ac.za</a></td>
</tr>
<tr>
<td>SCHEEPERS D [Ditken]</td>
<td>Senior Instructional Designer</td>
<td>+27 12 354 2395</td>
<td><a href="mailto:ditken.scheepers@up.ac.za">ditken.scheepers@up.ac.za</a></td>
</tr>
<tr>
<td>UNEITIDT SH [Hannelie]</td>
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<td>+27 12 354 2395</td>
<td><a href="mailto:hannelie.unbeitd@up.ac.za">hannelie.unbeitd@up.ac.za</a></td>
</tr>
<tr>
<td>VAN BLERK H [Hannalie]</td>
<td>Graphic Designer</td>
<td>+27 12 354 2219</td>
<td><a href="mailto:hannalie.vanblerk@up.ac.za">hannalie.vanblerk@up.ac.za</a></td>
</tr>
<tr>
<td>VAN DYK A [Anton]</td>
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<td>+27 12 354 3852</td>
<td><a href="mailto:anton.vandyk@up.ac.za">anton.vandyk@up.ac.za</a></td>
</tr>
<tr>
<td>VERMEULEN CA [Charmaine]</td>
<td>Senior Photogrpaher</td>
<td>+27 12 529 8062</td>
<td><a href="mailto:charmaine.vermeulen@up.ac.za">charmaine.vermeulen@up.ac.za</a></td>
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### Educational Support Team: Education, Humanities, Law and Theology

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Telephone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>JORISSEN HW Dr [Wille]</td>
<td>Head: E-Learning and Education Consultation</td>
<td>+27 12 420 4268</td>
<td><a href="mailto:wille.jorissen@up.ac.za">wille.jorissen@up.ac.za</a></td>
</tr>
<tr>
<td>FRESEN J Dr [Il]</td>
<td>Project Manager</td>
<td>+27 12 420 4626</td>
<td><a href="mailto:jill.fresen@up.ac.za">jill.fresen@up.ac.za</a></td>
</tr>
<tr>
<td>GOSSMANN C [Carol]</td>
<td>Education Consultant</td>
<td>+27 12 420 5376</td>
<td><a href="mailto:carol.gossmann@up.ac.za">carol.gossmann@up.ac.za</a></td>
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<tr>
<td>LOTRIET M [Marina]</td>
<td>Senior Education Consultant</td>
<td>+27 12 420 4748</td>
<td><a href="mailto:marina.lotriet@up.ac.za">marina.lotriet@up.ac.za</a></td>
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<tr>
<td>NDLOVU F [Faith]</td>
<td>Education Consultant</td>
<td>+27 12 420 5317</td>
<td><a href="mailto:faith.ndlovu@up.ac.za">faith.ndlovu@up.ac.za</a></td>
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<tr>
<td>RAMMUPUUDU J [Jelckie]</td>
<td>Junior Instructional Designer</td>
<td>+27 12 4204377</td>
<td><a href="mailto:jelckie.rammupuudi@up.ac.za">jelckie.rammupuudi@up.ac.za</a></td>
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<tr>
<td>VENTER L [Liana]</td>
<td>Instructional Designer</td>
<td>+27 12 420 2311</td>
<td><a href="mailto:liana.venter@up.ac.za">liana.venter@up.ac.za</a></td>
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<tr>
<td>VOLSCHENK G [Gal]</td>
<td>Senior Education Consultant</td>
<td>+27 12 420 3621</td>
<td><a href="mailto:gail.volschenk@up.ac.za">gail.volschenk@up.ac.za</a></td>
</tr>
</tbody>
</table>
Graphic and Photographic Services

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Kriek H [Miss]
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Magdi V [Mr]
Education Technology Assistant
Mahlangu TG [Mr]
WebCT Assistant
Maluleke KR [Mr]
Education Technology Assistant
Mohlapamafsi ME [Mr]
Programmer
Muller JF [Mr]
WebCT Assistant
Majara TJ [Mr]
Education Technology Assistant
Phalane JM [Mr]
Special Worker
Phohedi DS [Mr]
Education Technology Assistant
Ranzidza NE [Mr]
Testing
Redelinghuys S [Mr]
Testing
Stepmann K [Miss]
Education Technology Assistant
Tshihatu NW [Mr]
Testing
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Logistics, Off-campus Support and Partnerships

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