DEPARTMENT FOR EDUCATION INNOVATION

Annual Report 2023

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Department for Education Innovation

Department vir Onderwysinnovasie
Kgoro ya Tšweletšopele ya Thuto

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1 Introduction

The Department for Education Innovation (EI) offers strategic leadership in assisting academic staff in implementing innovative Higher Education teaching and assessment methodologies, educational technologies, and data-driven solutions. This is accomplished through consultation, professional development, training, and support provided to teaching staff. The services EI delivers are primarily staff-oriented, while teaching staff in each Faculty is student-oriented. EI's deep knowledge, understanding of, and skills related to hybrid teaching place it in a perfect position to develop, train, and support teaching staff. Each of the EI units works across different levels; these are as follows:

- Institutional: working across faculties according to their areas of expertise.
- Within faculties: providing support to the staff within a specific Faculty.
- EI departmental work: managing administrative tasks, generating reports, conducting internal work, and supporting EI units.

Additionally, EI manages the Scholarship of Teaching and Learning (SoTL) grants to catalyse teaching and learning innovations. The EI Department also organises the annual Flexible Futures conference, where academic and support staff can showcase their research to enhance the quality of teaching, learning, and student success at UP. Another important aspect of EI's work is providing the University with a teaching and learning digital ecosystem and a student success digital ecosystem. The figure on the following page illustrates the department's emphasis.

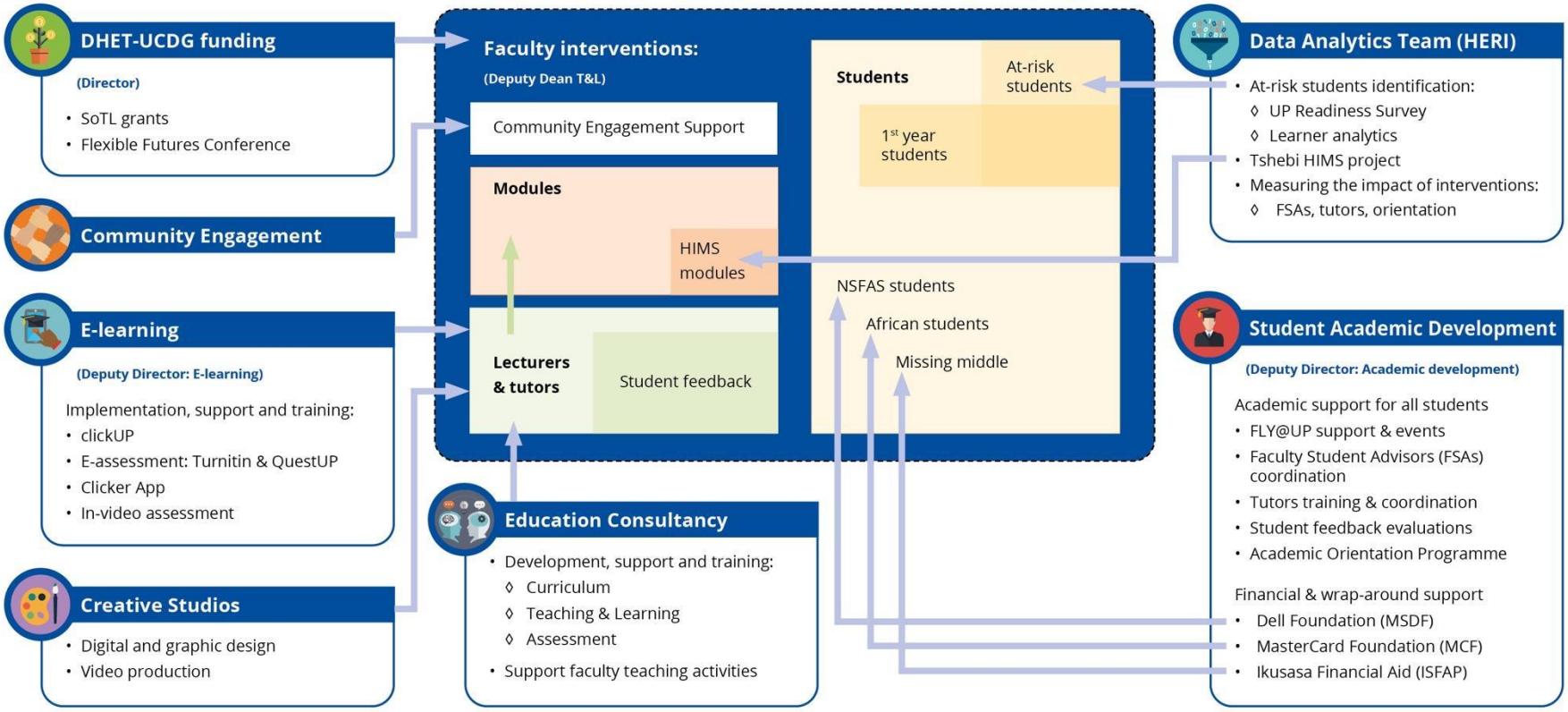
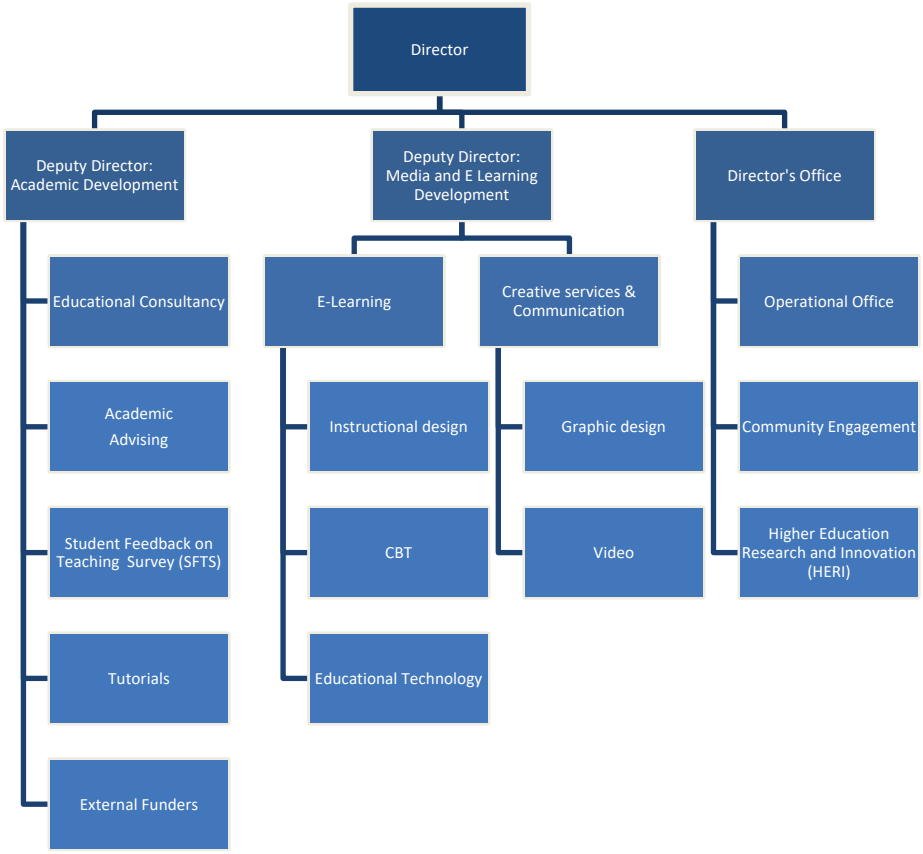


Figure 1: The Department's focus and structure within the University

1.1 The EI team

The Department has a team of 74 full-time experts in education, assessment, community engagement, instructional design, graphic design, videography, learner analytics, communication technology, educational research, student academic development, student success and wrap-around support. The various sectors collectively contribute to producing outstanding teaching and learning so that students are supported to succeed in their studies.

The following diagram outlines the basic organisational structure of the Department for Education Innovation (EI):



1.1.1 Management team

The Department is led by Professor Gerrit Stols and is divided into two sub-directorates, each with its deputy director. They are Dr Kgadi Mathabathe (Academic Development) and Mr Dolf Jordaan (E-Learning and Media Development). The Unit Heads include Ms Elize de Waal (Operations Office), Mr Almero du Pisani (Creative Studios and Communication Technology), Dr Rejoice Nsibande (Education Consultancy), Ms Detken Scheepers (E-Education), Dr Juan-Claude Lemmens (Higher Education Research and Innovation), and Dr Eugene Machimana (Community Engagement). Lastly, Ms Daisy Ngwenya is the Senior Management Assistant.

Figure 2: The Management Committee

1.1.2 The Operational Office Team

The OPS Office is spearheaded by Ms Elize de Waal, who leads a team of skilled and experienced staff in support of EI. The Senior Administrative Officer position is held by Ms Angela Bekker. Additionally, there is a Senior Administrative Assistant post which is currently vacant. Ms Gertrude Maepa is presently assisting in the front office.

The support of the Operations Office (OPS) is required in human resources, financial and logistical matters to ensure that EI functions optimally. The core mandate of this support unit within EI is to promote, encourage, and sustain the best administrative practices by consciously striving to increase effectiveness and efficiency. The group comprises three people, each with a knowledge base in their field (logistics, human resources, and finance). The degree of cooperation needed for effective functioning requires this office to nurture relationships with many other professional/support departments at UP. The Reception at the Hatfield campus provides a single point of control for the entrances to EI, gives information for first-line enquiries and receives deliveries. The Operations Office assists with all financial procedures, requests, and forms, as prescribed in the UP Policies and Procedures document. The OPS office offers a comprehensive service to the EI Department in coordinating and managing internal human resource functions and liaising with the Department of Human Resources (HR). This includes appointments, financial governance, the management and control of contract budgets, and all related human resources matters according to the University of Pretoria's policies, rules, and regulations. The OPS office is responsible for all logistic and maintenance matters within EI. This responsibility includes office space, furniture, building projects, the use of assets, IT-related matters, occupational health and safety, security and critical register, the coordination of services needed from Facilities Management, the Department of Security Services, stationery, access control, the use and maintenance of the golf cart, photocopier machines (contracts and user access), water coolers, pest control, plant maintenance, and contracts. The OPS Office also manages and coordinates the five kitchens and the staff/training/seminar rooms at EI on the Hatfield Campus and facilitates work with contractors.

1.1.3 Higher Education Research and Innovation Team

The Higher Education Research and Innovation (HERI) unit, led by Dr Juan-Claude Lemmens, recently created two new senior researcher positions, Mr Bonza Majozi and Dr Herman Janse van Vuuren.

The Higher Education Research & Innovation (HERI) work involves coordinating and supporting the High Impact Modules (HIMs) project, an initiative led by the Tshebi Committee, designed to boost the success rates of selected modules by conducting comprehensive evaluations and implementing targeted interventions. Additionally, HERI is tasked with the development of learner analytics dashboards. These tools provide insights into student performance and engagement patterns, aiding in identifying areas for support and improvement. Beyond these, HERI also plays a crucial role in supporting the implementation and further development of several critical applications and systems, including Anthology Reach (Support@UP), a tutor enrolment application, and an SFTS enrolment application. These efforts collectively aim to streamline educational processes, enhance student support mechanisms, and foster an environment conducive to higher learning and innovation.

1.1.4 Academic Development Team

Dr Kgadi Mathabathe, the Deputy Director of Academic Development, is responsible for leading the strategic direction of academic development for students and academic staff. She oversees the Education Consultancy, FLY@UP, academic orientation, student advising, student feedback system, and coordinating teaching assistant programmes. Additionally, she provides oversight for externally funded programmes. This contribution is accomplished through students' and academic staff's academic development and support.

Figure 3: Academic development team

Ms Hlengiwe Sehlapelo is the Senior Learning Enhancement Manager (SFTS). The purpose of the position is to manage and oversee processes related to the development, quality assurance and administration of the institution-wide Student Feedback on Teaching Survey. In addition, the Senior Learning Enhancement Manager supports academics in developing processes that would make the system accessible and optimally utilised and answer all queries about student feedback on teaching and learning.

Ms Esther Mphanda holds the position of Senior Teaching Support Services Coordinator (Institutional Tutor Coordinator) at the institution. Her primary responsibility involves managing, reporting, and overseeing the support extended to various teaching support staff, including tutors and teaching assistants. Tutoring, a co-curricular activity, is intrinsically linked to teaching and learning. Its purpose is to enhance students' understanding and deepen their learning. Ms Mphanda plays a supportive role for both tutors and Faculty tutor coordinators. The University Capacity Development Grant (UCDG) funding is earmarked explicitly for tutorials in High-Impact Modules (HIMs), particularly on first-year modules.

Dr Hestie Byles is the Advising Manager. This role aims to assist Faculty Student Advisors and peer advisors and create initiatives that foster student success. The position entails identifying effective academic advising techniques to address issues recognised by internal stakeholders. Additionally, the role involves leading the academic orientation program to seamlessly integrate first-year students into the university and help them overcome academic challenges associated with transitioning from high school to university.

Ms Tayla Jonker is the FLY Awareness Campaign Coordinator. The purpose of the position is to manage the FLY@UP campaign to encourage students to complete their qualifications in minimum time. The FLY acronym stands for The Finish Line is Yours and reminds students that they are responsible for completing their studies in minimum time. This message moves away from the narrative that student success lies mainly in the hands of the lecturers and student support staff. It is important to note that the FLY@UP project is a multi-stakeholder-driven initiative led by the DVC: academic. EI hosts the FLY

office, part of the more significant FLY project to support institutional student success efforts. The FLY office is supervised by the academic advising manager, who reports to the Deputy Director: Academic Development.

1.1.5 Education Consultancy (EC) Team

Dr Rejoice Nsibande leads the Education Consultancy (EC) unit, replacing Dr Sanet Haupt, who retired at the end of August 2023. An intricate model is followed, assigning each EC to a Faculty. In 2022, the EC unit had vacancies in Natural and Agricultural Sciences and Economic and Management Sciences, all filled in the latter part of 2023. Through an arrangement with available ECs, in line with their expertise, it was possible to continue supporting these faculties while waiting for the new appointments. This allowed the group to work across different faculties on projects. Even though the year was challenging, the group achieved significant goals given the redistributed workload. The EC team consists of the following: Dr Rejoice Nsibande (Head: Education Consultancy), Ms Anneri Meintjes (Health Sciences), Ms Gail Barry (Engineering Built Environment and IT-EBIT), Dr Marius Pienaar (Education, and Theology and Religion), Dr El-Marie Mostert (Veterinary Sciences), Dr Alfred Hlabane (Law), Mrs Marena Lotriet (Humanities), Mrs Faith Mathibedi (Mamelodi Campus, and Training Coordinator) and Dr Nonkanyiso Vokwana (Natural and Agricultural Sciences). Mrs Eulenda Shoko provides administrative support to the unit. The Education Consultancy unit offers strategic leadership and change management for curriculum, teaching, learning, and assessment innovation. Education Consultants (ECs) provide opportunities for teaching staff to participate in ongoing professional development, experimentation, and reflection on their work. Teaching staff are, therefore, connected to campus-wide and national scholarly conversations about teaching and learning. Here, the focus is to provide career-staged professional development opportunities in line with the Department of Higher Education and Training's (DHET)' Framework for Enhancing Academics as University Teachers.

Figure 4: Education Consultancy (EC) team

In the faculties, under the leadership of the Deputy Deans: Teaching and Learning, ECs build relationships with schools and departments and serve on the Teaching and Learning Committees (TLCs). They contribute to updating each specific faculty's policy guidelines, procedures, teaching-related documents, and curriculum development activities. They also support individual academics in identified areas to deliver on the group's key performance areas. As Education Innovation staff, ECs are tasked with nurturing, supporting, and developing academics' capabilities as university teachers. This is achieved through teaching and learning advice (consultations), teaching practice (peer reviews),

support material development (Open Education Resources, study guides, assessments, and other resources), and collaborating through Scholarship of Teaching and Learning (SoTL) projects. The professional development opportunities offered include courses that assist academics in developing their academic/teaching portfolios. This is required for permanent appointment, promotion, and Teaching and Learning Awards applications. This way, academics are recognised and rewarded for their work as university teachers.

1.1.6 e-Education Team

Mr Dolf Jordaan is the Deputy Director of e-Learning and Media Development. The e-education unit provides change management, professional development, and innovative leadership to build the University's capacity to implement a hybrid approach. They implement, monitor, and evaluate the university's teaching, assessment, learning platforms, systems, and policies. Additionally, they implement upgrades to existing and new educational technology. Implementing these upgrades requires significant time and ongoing changes due to the upgrades in institutional software. Successes in using educational technologies would not have been possible without extensive staff development and the timely and efficient support provided to lecturers, administrative staff, and sometimes even students. This support requires frequent consultation with other professional and support services departments and technical support staff from vendors. Ms Detken Scheepers manage the e-Education group. It comprises 3.5 e-learning project managers, 10 Instructional Designers (IDs), three computer-based testing (CBT) assistants, and one clickUP help desk officer. The project managers manage activities within the following portfolios in the group:

- e-Learning professional development,
- Computer-based tests,
- Support, and
- Multimedia/app development.

Individuals in the e-education unit are often involved in two portfolios in addition to the instructional design support they provide to their allocated Faculty. A decentralised service delivery model enables the e-learning group to provide services to all nine faculties distributed across three campuses: Hatfield, Prinshof, and Onderstepoort. A hybrid service delivery model exists to support the Mamelodi and Groenkloof campuses from the Hatfield campus.

Figure 5: E-Education team

Front row left to right: Mpho Thukane, Nomathemba Nqcobo, Gaby Pretorius, Gretchen Jacob and Thino Rajab
Middle row left to right: Detken Scheepers, Alastair Smart, Hannelie Untiedt, Yolanda Kweyama, Kingsley Sebake, Ciska Snyman, Jacky Maroga, and Dolf Jordaan.
Back row, left to right: Mark Sias, Velly Nkosi, Dennis Kriel and Johan Slabbert
Not on the photo: El-Marie Mostert, Erika de Bruyn, Estelle Drysdale, and Ephodia Mdluli

The e-learning professional development team consists of Hannelie Untiedt (Project Manager), Jacky Maroga, Estelle Drysdale, Alastair Smart, Mpho Thukane, Dennis Kriel, Detken Scheepers, Johan Slabbert, and Kingsley Sebake. Mr Johan Slabbert is the Project Manager of Educational Technology and also oversees the support provided to staff. Gretchen Jacobs manage the support office on the Hatfield Campus and by Ephodiah Mdluli at the Prinshof Campus. The assessment team consists of El-Marie Mostert (Project Manager), Gaby Pretorius, Erika De Bruyn, Noma Ngcobo, Velly Nkosi, supported by Mark Sias, Yolanda Kweyama, and Thino Rajab as computer-based testing assistants. We were excited to welcome Ms Ciska Snyman to the team on 1 February 2023. The following members of the group received long service recognition in 2023: Manyaku Maroga (20 Years), Nomathemba Ngcobo (15 years), and Thino Rajab (10 years).

The e-Education team arranged a brief farewell for Dr El-Marie Mostert in honour of her retirement, extending heartfelt thanks for her dedicated service of 33 years and nine months. Her leadership with computer-based testing and project management of various multimedia and mobile apps was key to the advancement of e-education and, in particular, e-assessment within the University of Pretoria. Her contributions to the international collaboration with the Prince Leopold Institute for Tropical Medicine, Antwerp, Belgium (since 2004) also impacted Veterinary Education worldwide.

Figure 6: Dr El-Marie Mostert

1.1.7 Creative Studios and Communication Technology Team

The Creative Studios Unit helps lecturers to enhance student learning through teaching media. This is achieved by creating engaging audio and visual material and supporting lecturers in applying this media in their teaching, learning and assessment activities in the class and online. Creative Studios and Communication Technology (CS&CT) provides strategic leadership for designing, developing, and implementing teaching media in contact and online environments. The Hatfield graphic studios, supporting the Prinshof and Onderstepoort campuses, produce graphic designs for teaching and learning, as well as posters and animations. CS&CT collaborates with lecturers to design, film, and edit short educational videos linked to teaching and learning. Graphic designers and videographers also work with IDs and lecturers on multimedia design and development. They also provide facilities and expertise in video conferencing to cater to teaching and learning and the Executive's needs.

Figure 7: Creative Studios and Communication Technology Team

Back row left to right: Mmatlhapi Mhlakaza, Almero du Pisani, Dolf Jordaan Andrè du Plessis, Anton van Dyk
Middle row left to right: Estelle Mayhew, Rita Dave, Hettie Mans, Keith Mankgane
Front row, left to right: Marizanne Booyens, Dinika Mishtry-Chunilall

CS&CT is represented on three UP campuses. These facilities are managed by Ms Marizanne Booyens (Prinshof studio), Ms Estelle Mayhew (Onderstepoort studio), and Ms Hettie Mans (Hatfield studio), all of whom report to Mr Almero du Pisani. On the Prinshof campus, Ms Marizanne Booyens and Ms Mmatlhapi Mhlakaza are the graphic designers, while Mr Anton van Dyk is the video producer. At Onderstepoort, there is only Ms Estelle Mayhew, who is a graphic designer. At the Hatfield Campus, there are three graphic designers: Ms Hettie Mans, Rita Dave, and Mr Keith Mankgane. There are also two video producers at the Hatfield Campus: Mr Andre du Plessis, and Ms Dinika Misthry Chunilall. The video and graphic staff render services to all campuses on a matrix management model.

1.1.8 Community Engagement Team

The newly appointed Manager of the Community Engagement Unit is Dr Eugene Machimana. The staff members supporting him are Mr Albert Matlheketlha and Ms Londiwe Mahlangu. These staff members support the community engagement work of the faculties: Dr Eugene Machimana (EBIT, EDU, EMS, VET), Londiwe Mahlangu (LAW, NAS, THEO), and Albert Matlheketlha (HUM, HEALTH). These staff members can be seen in Figure 8 below.

Figure 8: Community Engagement Team

Left to right: Eugene Machimana, Londiwe Mahlangu, and Albert Matlheketlha

The management of community engagement at an institutional level is the mandate of the Community Engagement Office in EI, supported by the Community Engagement Management System (CEMS) database. This unit collaborates with a range of internal and external stakeholders. As most students involved in community engagement earn credit towards their degrees, lecturers, faculties, and students are, therefore, the primary stakeholders. External communities, governmental and non-profit organisations, and the private sector are the other significant stakeholders. The CE unit in EI and/or faculties are responsible for the following:

- Providing each student with a suitable opportunity or project related to their specific academic field. This opportunity or project must meet the specific outcomes of the module based on community engagement while solving community-identified problems.
- Providing each student enrolled for these modules with a suitable and safe site where they can do their community-based work.
- Providing suitable transport to the site when required. This is often the biggest challenge and the costliest item owing to the need for more safe public transport.

The staff in the CE office are responsible for ensuring that the Community Engagement Policy is implemented, that students are briefed and kept as safe as possible, and that sites of learning are found and regularly quality assured. Any activities undertaken must align with the learning outcomes that the students must achieve. The policy explicitly addresses the issue of the relationship between communities and the University as partners in the process. The protocol of the CE policy addresses the safety of staff, students, and community members. Maps of safe routes to sites of learning are provided on the CEMS, where students and staff can download them. Moreover, students are briefed on security before starting their CE modules.

1.1.9 External funders wrap-around student support teams

The Department for EI houses and manages several donor-funded programmes that provide wrap-around support to selected students. These include two programmes funded by the Michael and Susan Dell Foundation (USA), a postgraduate and undergraduate programme funded by the Mastercard Foundation (Canada), and the Ikusasa Student Financial Aid Programme (ISFAP) funded by corporate businesses in South Africa. Wrap-around support refers to the availability of at least one manager for scheduled check-ins, consultations, arranging additional activities and other support activities. A programme might also make provision for additional staff for counselling and advising.

1.1.9.1 The Mastercard Foundation Team

The Programme Manager, Dr Grace Ramafi, oversees the overall management of the Mastercard Foundation Program at the University. The Senior and Postgraduate Academic Coordinator, Dr Efe Isike, is responsible for providing academic advice, monitoring, and liaising with faculties and mentoring and referral services for postgraduate students. The Undergraduate Academic Coordinator, Bonolo Letshufi, is responsible for selecting modules, assisting students with course selection, providing academic advising, monitoring, liaising with faculties, mentoring, and referral services. Eloise Law-Van Wyk, the Counselling Psychologist, provides students with academic counselling and psychosocial support. Lennox Wasara is the Project Coordinator for Entrepreneurship and Community Engagement, while Sifiso Khuboni is the Recruitment and Liaison Officer. Mr Khuboni is responsible for developing student recruitment strategies, marketing, and data management. The Senior Administrator and Accounting Officer is Leaga Lesufi, and the Administrative Officer is Nandy Theka.

Figure 9: The Mastercard Foundation Team

Back row, left to right: Sifiso Khuboni, Bonolo Letshufi, Efe Isike, Lennox Wasara
Front row, left to right: Eloise Law-van Wyk (absent), and Grace Ramafi

The Mastercard Foundation Scholarship Program (MCFSP) continues offering scholarships to high-achieving African students interested in undergraduate or postgraduate studies. The Foundation focuses on academically talented yet economically disadvantaged young people in Africa. It specifically targets students who will contribute to the continent's transformation through their knowledge, skills, attitudes, and values, as evidenced by their leadership. In addition to their academic programmes, community service, internships, and entrepreneurial skills are essential components of the programme. Scholars are also expected to participate in community engagement programmes. They are offered leadership training workshops as part of the wraparound and transition support necessary to move smoothly from education to dignified and fulfilling employment or entrepreneurship. Graduates find employment within three months after graduation. The program continues to support its alumni in pursuing multiple pathways, such as higher degrees, work, and entrepreneurship. Mental health and well-being support are provided to them in addition to sharing workplace development skills and mentorship. Twenty-five African countries are represented in the Programme.

1.1.9.2 The Dell Foundation Team

The Michael and Susan Dell Foundation (MSDF) provides support to two different programmes at the University of Pretoria: The Dell Young Leaders Programme (DYL) and the Sikelela Scholars Programme (SSP). These programmes support and empower low-income students (primarily first-generation university NSFAS students) to graduate and secure meaningful employment.

Figure 10: Dell Foundation Team

The Dell Young Leaders Programme (DYL)

The Dell Young Leaders Programme delivers strategic, systematic wrap-around support for a selection of NSFAS students (high-potential students from historically and financially disadvantaged schools and communities). The programme helps students navigate common barriers to graduation, offering support in the areas most needed to ensure they move on to a meaningful career. The programme is relationship-based, supporting the whole student in four areas: academic, financial, wellness and career. Each student is awarded R150,000 in scholarship funds, which are used as a top-up model for

NSFAS funding to cover any gaps in a student's total cost of attendance throughout their studies. These funds have also been leveraged to reduce the students' NSFAS loans. The programme has consistently succeeded, with many students completing their degrees and obtaining employment.

Sikelela Scholars Programme (SSP)
The Sikelela Scholars Programme leverages the existing University resources and technology to address non-financial barriers to student success. The SSP operating model is innovative and cost-effective. It offers students an integrated support centre, simplifies seeking help, and aggregates the issues that disadvantaged students encounter to offer some efficiencies in solving these. This programme aims to determine if such support could improve student performance outcomes and document how such support could be scaled for the future. However, the programme provides academic, financial, wellness, and career support. Awardees receive a laptop and limited financial support to bridge gaps where necessary.

1.1.9.3 Ikusasa Student Financial Aid Programme (ISFAP)

The Ikusasa Student Financial Aid Programme (ISFAP) addresses the so-called 'missing middle' student – a student who does not qualify for NSFAS based on family earnings but does not have adequate financial resources to register. The Programme is available to students in the EMS, EBIT, NAS and MbCHB faculties. EI provided advice and oversight of the programme and took responsibility for the funds' disbursement with Programme Managers in the faculties. Some of the activities included in the wrap-around services were tutoring, mentoring, counselling, and social events. The wrap-around support includes a laptop, financial, academic, wellness, psycho-social support, and a mentorship programme. Including the 2023 cohort in the ISFAP@UP programme brought the number of ISFAP grant recipients to 553.

1.2 External Quality Reviews

In 2023, the Department for Education Innovation underwent an External Quality Review by an international panel of experts from the USA, the Netherlands, Ghana, and South Africa. The panel admired the department's accomplishments, extending the following commendations. They acknowledged the department's outstanding value for money and broad recognition from the university's leadership and assorted stakeholders. They lauded the department's staff for their expertise and commitment, significantly contributing to a unified and proficient team adept at fulfilling the university's mandate. The panel regarded the department as highly competitive and forward-looking on a national and international scale, drawing parallels with prestigious departments in globally recognised universities. This positioning places them ahead of numerous comparable European institutions in terms of quality. Applauding the department's data-driven methodology in issue identification and continual enhancements in service provision, the panel noted alignment with international best practices. They also highlighted the strong collaboration between the department's staff and the lecturers, underscoring the lecturers' appreciation for the initiatives spearheaded and actualised by the department.

In 2022, the Council for Higher Education (CHE) conducted a comprehensive review of the University of Pretoria, and a draft report was issued in April 2023. The CHE panel, comprising national and international experts, concluded that the work related to the EI department was exemplary, receiving commendations for their efforts:

Teaching and Learning feedback:

- In 2020, UP implemented its recalibrated teaching and learning strategy, Teach and Learn: The UP Way, to enhance the student learning experience and success rate.
    - It is commendable that UP has adopted a flexible approach to programme delivery to ensure that technology is used in learning and assessment, supporting an effective

hybrid and blended learning environment, as well as pursuing innovation in digital learning.
    - The CHE panel believes that the University of Pretoria is in an ideal position to help students gain the skills they need to be successful in the Fourth Industrial Revolution (4IR/IR4.0) because of its hybrid teaching methodology. The hybrid approach can extend the classroom experience beyond the lecture period — before and after class. It gives instructors the chance to combine the best aspects of in-person and online delivery to create a brand-new learning experience for students. By changing the order of instruction, hybrid learning improves teaching and learning.
    - The perception is that with comprehensive and innovative online material, well-prepared students can now benefit more from inquiry-based learning in class.
- Moreover, UP has a Department of Education Innovation (EI) for teaching and learning. EI has a team of dedicated Instructional Designers and Educational Consultants that support academic staff academically.
- During the CHE panel interviews, the management staff was asked about how they dealt with challenges experienced during the Covid-19 pandemic. Some faculties benchmarked what other HEIs were doing and confirmed the support from EI during the lockdown and commented that online teaching delivery evolved throughout the Covid lockdown.
- The Department of Education and Innovation (EI) provides the template for Study Guides in terms of content and assessment which all lecturers abide by, taking into account the unique needs of each faculty.
- The CHE panel noted that academics attend educational courses to keep abreast of development in teaching and this happens in the context of the Policy on Academic Professional Development: Teaching and Learning (ADD 15.6). As part of the teaching and learning requirements, newly appointed staff are required to complete the UP Teaching and Learning Induction process during the probation period (first year). It is also compulsory for all newly appointed lecturers and teaching assistants to attend the clickUP overview course. The Academic Induction Programme aims to introduce newly appointed lecturers to the different aspects of their teaching role in higher education and at UP in particular (SER, p. 134).
- The University of Pretoria solicits student feedback on the delivery of modules and recognises that students are a crucial part of enhancing their own learning experiences. The fact that this occurs under institutionalised guidelines expressed in the Policy Framework of Procedure: Student Feedback on Teaching Survey is noteworthy. The module evaluation system enables academic staff to assess their contributions and obtain a fresh perspective on their work to improve the quality of instruction (SER, p 126). The process also enables academic staff to build up a portfolio of evidence that can be used for academic promotion and/or performance management. Module evaluations make provision for multiple sources of data on teaching and learning. These include the formal end-of-course assessment with the Student Feedback on Teaching survey (summative) where the ownership lies at the departmental level. The evaluation also occurs through continuous intra-course assessment (formative) where the ownership lies with the lecturer (clickUP demonstration (demo). For decades, student feedback on teaching has been elicited after the completion of modules. However, with a low response rate of 38.42% in 2020 and 29.64% in 2021 (SER, p126), the data generated from such feedback is insufficient for detailed analysis or use in supporting teaching and learning enhancements. In 2020, UP, therefore, deployed EvaluationKIT (a Watermark product), an electronic institutional feedback system that enables students to rate the efficiency and quality of instruction via a single sign-on in the LMS from any location and on any device, including smartphones (SER, p.125; Interview Session 25; clickUP demo).
- The University of Pretoria (UP) solicits student feedback on the delivery of modules and recognises that students play a crucial role in enhancing their own learning experiences. The fact that this occurs under institutionalised guidelines in the Policy Framework of Procedure:

Student Feedback on Teaching Survey, is noteworthy. The module evaluation system enables academic staff to assess their teaching and obtain a fresh perspective on their work to improve the quality of instruction. The process also enables academic staff to compile a portfolio of evidence that can be used for academic promotion and/or performance management. Students indicated that they are fairly knowledgeable about curriculum changes, including contemporary debates about transformation.

Curricular Community Engagement feedback:

- In addition to its primary role of teaching and research in the making of graduate citizens with advanced skills, the University of Pretoria conducts much of its community engagement through its formal academic programmes, differentiating it from more conventional forms of social responsibility, philanthropy, business, government and industry partnerships, as well as local poverty-eradication projects. The integration of community engagement in formal, credit-bearing modules is an academic innovation that began in 2011 and is now main-streamed in UP's curriculum.
- The CHE panel commends UP's approach to community engagement (CE), acknowledging that CE activities at the University are credit-bearing in many courses. In some programmes, students cannot graduate without demonstrating that they have completed CE-related modules. The fact that the community sometimes contributes to the CE evaluation of students' performance is even more commendable.
- The UP takes community engagement (CE) so seriously that CE activities at the University count toward the curriculum's credit requirements. In some programmes, students cannot graduate without demonstrating that they have completed CE-related modules (SER, pp. 88, 143). The fact that the community sometimes contributes to the CE evaluation of students' performance is even more admirable. By doing this, UP presents itself as an involved institution that works with faculty, staff and the public to close the gap between academia and society.

eLearning feedback:

- The CHE panel acknowledges the well-developed and highly functional ICT infrastructure supporting the academic project, as well as key institutional support services, such as Finance and Auditing, Administration, the LMS, the Library online services,
- The University uses the Blackboard Learn LMS (branded as 'clickUP'), Blackboard Mobile, and Blackboard Collaborate technologies to support its hybrid approach to teaching and learning.
- At the institutional level, EI facilitates regular opportunities for interrogation of teaching/learning innovation and ICTs in teaching and learning. UP was the first residential University in South Africa to adopt an online LMS more than two decades ago (SER, p. 120). At the start of the Covid lockdown in 2020, nearly 96% of all UG modules had an online presence. This situation made the transition to ERT much easier for students and staff (SER, p 121). With incremental developments in online LMS change-management plans were put in place. Developments in the online LMS were widely discussed, formally and informally, and training was provided to staff and students. Students receive training on clickUP during the compulsory AIM module in the first year and have help desks in computer laboratories across campuses for further assistance and access.

Learning analytics feedback:

- The University has a suite of technological platforms dealing with data, learning management and assessment systems. Students' data are tracked and monitored with interventions to support at-risk candidates and to provide detailed learning analytics. Information is readily available at the various levels, from first-year undergraduate to coursework postgraduate master's level, on a needs basis (access control) to manage and support the core functions of

the University. Students can readily access their own information and compare their performance with peers. The coherence of UP's electronic platforms permits integrated statistical analysis and therefore a calibrated future scenario of academic success.

- The CHE panel observed that the University is actively involved in measures to monitor student behaviour and activities to improve student success. Blackboard automated notifications allow students to track their performance, thus enabling them to take responsibility for their own learning, thanks to recent enhancements to online course management.
- Data from the Blackboard tools, when combined with data from the PeopleSoft Student System, provide comprehensive reports and dashboards on students that are available to lecturers and management. It is a cloud-based solution that facilitates access to module learning material, interactions with teaching staff, submission of assignments, recording of student grades on tests and assignments, and more, for UP academic staff and students, as well as some support staff such as advisors (SER, pp. 21, 70; campus visit, 8 September 2022).
- Module reviews follow a team- and data-based approach and are directed through EI rather than the APQ, which operates at a broader level, such as the programme, discipline, or academic department. Student feedback is crucial to understanding the success and gaps in interventions to facilitate student success. The primary focus is the improvement of teaching and student engagement and success. The SER refers to the relatively new online system for generating student feedback which still needs to be ideal for providing individualised feedback to staff cooperating in team-taught modules, but this is a work in progress (SER, Section 7.4, p. 73).

2 Excellence in teaching and learning

The Department for Education Innovation (EI) provides strategic leadership for implementing innovative higher education teaching and assessment methodologies, educational technologies, and data-driven solutions. EI is mainly a lecturer-facing department and is committed to improving teaching and learning. Effective student learning requires a learning environment in which students actively participate to take control of their learning. UP's teaching and learning model could be described as technology-enabled flipped learning that is self-directed, inquiry-based, and assessment-driven.

2.1 TEACH The UP Way

The University's hybrid teaching and learning model encourages students to prepare independently for each class and engage and critically discuss issues in class.

	Before class	In class	After class
Traditional		**Information**: lecturer	Homework (simple to complex)
UP's hybrid model	**Information**: Video, textbook, other **Formative assessment:** simple homework questions	**Engage:** complex homework questions and discussions	

This teaching and learning model could be described as inclusive because inclusive education is meant to address the needs of all students. In an article in *The Chronicle of Higher Education*, Supiano[1]

[1]Supiano, B. (2018). Traditional teaching may deepen inequality. Can a different approach fix it? *The Chronicle of Higher Education*.

explains how traditional teaching deepens inequality (disadvantaged black and Latino students). He suggests a way to address it: '*Inclusive teaching has two main components: putting more structure into a course, giving clear instructions so that all students know what to do before, during, and after class; and thoughtfully facilitating class discussion so that everyone can participate'*. This was confirmed in another large-scale study by Haak et al.[2]: 'Our highly structured course significantly improved student performance in this broad-based comparison—but did so disproportionately for EOP students'. They explained what they mean by putting more structure into a course: *'…giving clear instructions so that all students know what to do before, during, and after class*.' Active learning was promoted by using clickers to ensure that all students participated in class sessions and requiring all students to complete a weekly low-risk assessment. Preparation before class equalises students' readiness for class and enables all students to participate actively in class. Their message to students was: '*This course is designed to equalise your readiness before class—while you may take several hours reading and preparing, another student may need less time. Yet when you get to class, your effort will pay off as we practise these concepts together, and you gain confidence in your ability!*'

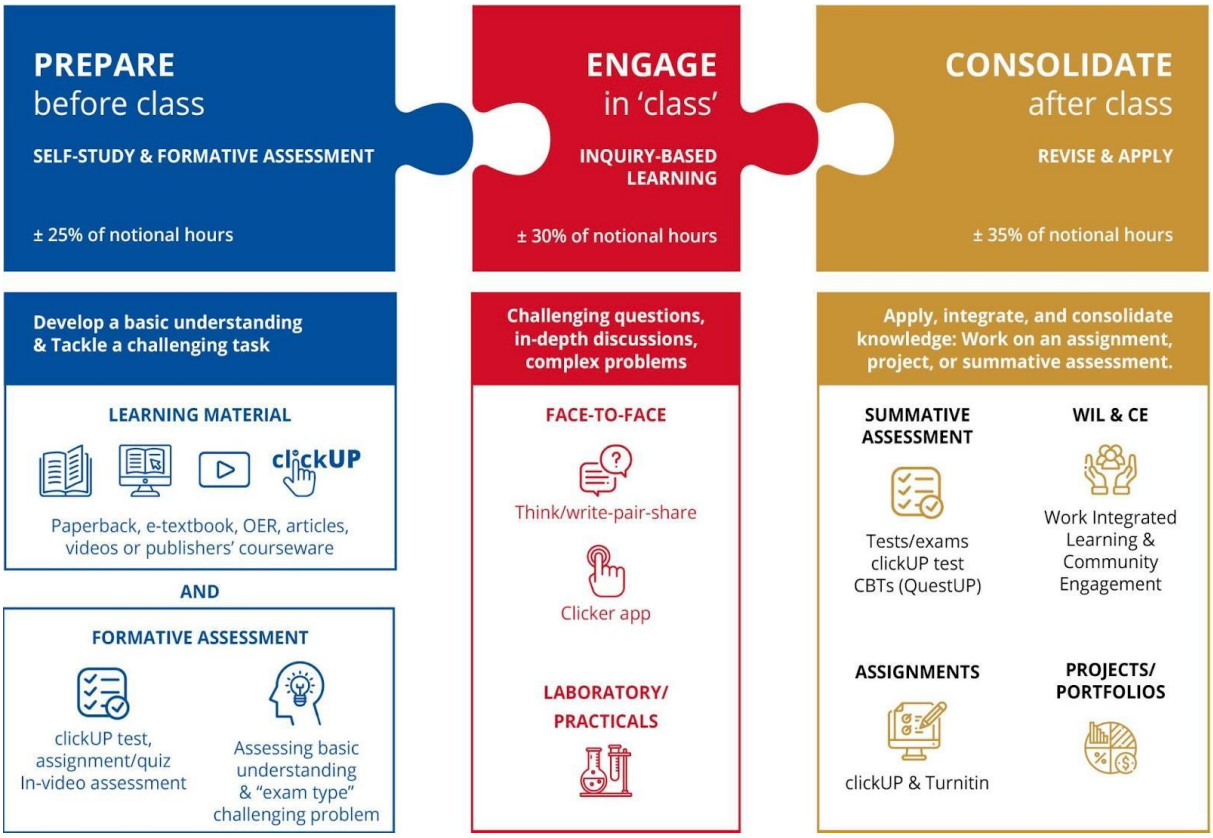


Figure 11: The University's flipped-learning methodology

This model gives the students the best of both worlds - online and contact - and will allow them to succeed at university and in life beyond university. In addition, this model will prepare a new generation of students to flourish in the world of work because it encourages students to take control of their learning, apply skills, solve complex problems, and in the process, develop digital fluency.

[2] Haak, DC, HilleRisLambers, J, Pitre, E, & Freeman, S. (2011). Increased structure and active learning reduce the achievement gap in introductory biology. *Science*, 332 (6034), 1213–6.

2.1.1 Prepare before class

Quality instruction requires students to come to class prepared, as this enables new teaching to build actively on existing knowledge. Students can prepare for a class using traditional textbooks, e-textbooks, PDF and MS Word files, videos, or publishers' learning systems. Formative assessment before class enables students to monitor their progress and assists lecturers in understanding where students are in their understanding and designing instruction accordingly. Formative assessments could help lecturers and their students monitor their understanding and help students learn to take control of their learning, thus preparing them for lifelong learning. Technology enables us to assess student preparedness in many powerful ways, e.g., online tests and in-video assessments. Formative assessment before class enables students to monitor their progress and permits a lecturer to understand where they are and design instruction accordingly. Students' preparedness for lectures can be determined or assessed in various ways. Students can complete a Blackboard (Blackboard) assessment before class. Lecturers can also embed interactive quizzes into videos using H5P software and track students' results in the Blackboard Grade Center. These features are directly available on Blackboard (clickUP). One of the most critical requirements for student success is ensuring all students have access to essential course material. It is, therefore, essential to promote the use of free open educational resources (OERs).

2.1.2 Engage in class

Although the new generation of students seeks information independently and on-demand, they want human interaction and opportunities to discuss their views and concerns. Inquiry-based learning enables students to think, communicate and justify their ideas. The information gathered from activities before class can and should be used to formulate a few challenging questions/ assignments that could lead to in-depth discussion. Research shows that inquiry-based learning motivates students, stimulates critical thinking, and creates opportunities to develop a deeper understanding of concepts. Regarding preparing students for the Fourth Industrial Revolution (4IR), inquiry-based learning can potentially improve students' critical thinking, problem-solving skills, creativity, teamwork, intercultural communication, and collaboration. Interaction in face-to-face lectures can be achieved in various ways. Using a student response system (Clicker app) to capture responses provides lecturers with data about class attendance, engagement, and student understanding (formative assessment). The system's feedback also provides students with instant feedback about their understanding in an anonymous and non-threatening way.

2.1.3 Consolidate after class

It is critical to creating opportunities for students to reflect, integrate, and restructure their knowledge after class. This could include the opportunity to prepare for a summative assessment, work on an assignment, watch a class recording and reflect on it, draw a concept map, make a summary, work on a project, apply knowledge to solve an integrated complex problem or watch the recording of the lecture again. Various tools and approaches can be used for assessment. Technology-enhanced and/or online assessment is just one of many possibilities, e.g., Blackboard LMS assignments, Turnitin assignments, and Cirrus Computer-Based tests. The University also uses Gradescope to help lecturers to administer and use AI to grade assessments. Gradescope allows instructors to automatically group similar answers and grade all the answers in each group simultaneously. Proctorio integrates with the Blackboard (LMS) and Cirrus tests and uses advanced machine learning and facial detection technology to deliver accurate, reliable exam proctoring.

Laboratory work and practicals can support learning by allowing students to experiment practically, discover essential concepts, and help develop teamwork skills. They are essential to science, engineering, and Health Sciences learning. Practical work also introduces students to discipline-related

work safety precautions and rules. An essential part of the University's consolidation process is curricular-related work-integrated learning (WIL) and community engagement (CE) fieldwork. The University understands WIL to be a method of learning that integrates theory with practices from the work environment within a purposefully designed curriculum. WIL is a compulsory and essential component of some professional qualifications offered at UP. It plays a fundamental role in contributing to the competencies that graduates must develop to enter the work environment. Project-based learning is another form of inquiry-based learning where students work together on a complicated interdisciplinary problem, inside or outside the classroom, over a more extended period, and in diverse groups. In terms of preparing students for the 4IR, this has the potential to improve their teamwork abilities (human connection, social skills, and community), critical thinking, problem-solving, collaboration skills, intercultural awareness, and digital fluency. Given its unique knowledge and skills base, the University of Pretoria is in an ideal position to apply that expertise to solving the problems identified by communities. Most of the community engagement at the University is curricular - that is, students earn credits towards their degrees while applying their knowledge in the service of the community. These community engagement opportunities provide an in-depth learning experience for students while specifically benefitting the communities in which they work. Such opportunities foster the development of skills for managing relationships, problem-solving, and civic responsibility, offering a competitive edge for students entering the world of work.

2.1.4 Student Feedback on Teaching Survey

UP is committed to improving teaching and learning by regularly soliciting student feedback on teaching. As an important stakeholder, the student experience is regularly sought to inform the quality of teaching in modules and learning programmes. The Student Feedback on Teaching Survey aims to allow lecturers to collect evidence, among other sources (peer review, class observation reports, etc.), to build their teaching portfolio. Reflecting on the Student Feedback on Teaching Survey reports assists lecturers in continuously improving their teaching, learning and assessment practices, curricula, and the general quality of the modules they teach. Student Feedback on Teaching Survey reports and lecturer reflections are also used in performance reviews and as part of the applications for promotion. Student feedback is also crucial as it provides insights that lead to understanding the success and gaps in teaching interventions to facilitate student success.

The electronic lecturer and module evaluation system, Watermark, Course Evaluations & Survey, enables students to provide feedback on the effectiveness and quality of teaching. This system enables students to provide feedback using the learning management system, click, and e-mail links anywhere and from any device (including phones). Regular reviews of the Student Feedback on Teaching Survey ensure that UP's monitoring and evaluation of student satisfaction with teaching and learning remain dynamic, agile and accessible. In addition, the wide institutional consultation on the review of the procedure and the survey provides for continuous improvement of the tool by all stakeholders served. This results in a validated, fit for purpose tool of gathering student experience data that is key in providing insights regarding the quality of institutional teaching and learning from a student perspective. In addition to collecting data that is a proxy measure to the quality of teaching, academics are allowed to add a maximum of 7 context-specific items that enquire into unique teaching and learning aspects, e.g., clinical training and assessment in the Health Sciences faculty or to assess the impact of new teaching interventions in modules. In order to promote the uniformity of practice and the acquisition and collection of uniform institutional longitudinal data, at the beginning of 2023, all faculties were encouraged to utilise the centralised electronic SFTS instrument for collecting student feedback on teaching.

2.1.5 Curricular Community Engagement (CCE)

The University is fully committed to Community Engagement (CCE) as it is embedded in teaching, learning, and research as a pillar of higher education. UP differentiates between university social responsibility, partnerships with local government, business and industry, non-curricular community engagement, and curricular community engagement. The latter is the focus of the EI Department. The University's curricular CCE may be regarded as a flagship initiative given its scope, management, and impact. As a matter of strategy, CCE has been formally integrated into teaching, learning, and research.

Community engagement is credit-bearing, making it more sustainable as it is programme-based and has clear outcomes and rigorous assessment. Engaging with society and communities is a core University function that flows from UP's teaching and research functions. The institutional Policy frames our approach to community engagement, which applies to all members and structures of the University community. It recognises that we are integral to our host communities and affirms the importance of communities and civil society in the broader sense. The policy guides and shapes our CE programmes and their integration into core and support functions. It is aligned with our strategic priorities, ensures ethical conduct, and serves as the basis for operational decision-making and practices.

Figure 12: Occupational therapy with the community

All faculties are involved in CCE and community development, although the nature of their involvement varies. Through CCE, we demonstrate civic responsibility and citizenship, linking staff and students' best research and teaching to the specific needs of diverse communities. The affected communities themselves inform such needs, and a philosophy of mutual benefit underpins our approaches. In a two-way relationship, we partner with stakeholders, valuing and respecting their inherent capacity, beliefs, perspectives, and dignity. Student life and the attributes developed through service and engagement are enriched, contributing to their holistic development as well-rounded and socially conscious graduates and citizens. In collaborative research activities between researchers, communities, and social partners, application scholarship produces disciplinary or transdisciplinary knowledge that benefits the community, researchers, and the University.

Various structures enable a tiered and consistent approach to CCE while enabling translation to discipline-specific contexts. The Senate Committees for Teaching and Learning and Research and Postgraduate Education provide direction and oversight for CCE in their respective areas of

accountability. Each faculty has a Community Engagement Committee or includes CCE as a standing item on teaching and learning and research committees. Residences have committees for CCE, as do student societies and the SRC. UP also hosts a broad multi-stakeholder Community Engagement Forum.

CCE is integrated into the curriculum and crucial to ongoing curriculum transformation. All faculties have determined their range of modules incorporating CCE. The University and the community (lecturers, students, CBOs, NPOs, etc.) are at various levels of awareness, knowledge, and skills along the CE competence continuum. The primary partnerships lie between the University (its campus community comprising its students, staff, and alumni) and the communities of Mamelodi, Eersterust, Pretoria North, Pretoria West, Pretoria Inner City (including Sunnyside and Hatfield). Communities are consulted on aspects of CCE in the process of curriculum planning.

Additionally, students and academics undergo orientation before engagement, and the learning focuses on engagement processes, interventions, and outcomes. CCE activities and learning outcomes within specific modules are aligned with students' potential career paths. The Community Engagement Office produces several Community Engagement Newsletters annually. These publications highlight the outstanding community engagement efforts undertaken by our academics and students across various faculties:

- Lentsu La Sechaba: Volume 15 (2023)
- Lentsu La Sechaba: Volume 16 (2023)
- Lentsu La Sechaba: Volume 17 (2023)
- Lentsu La Sechaba: Volume 18 (2023)

Although numbers might change annually, 233 modules and 24,357 students were involved in CCE activities in 2023. The University's insurance policy covers up to 3,000 students daily in the field.

Faculties	Modules	#Students	Examples of sites
EBIT	1	1517	Eskom Expo, Future Nation Schools and Plastic View
EDU	15	4587	Crawford International Pretoria Preparatory, Dibber International Baby centre School for Visually Impaired and Blind
EMS	5	89	Woolies Animal shelter and UP Educational Campus in Mamelodi
VET	15	2008	Production Animal farming establishments, Satellite Community-based Clinics: Makapanstad and various welfare clinics.
HUM	25	1543	Saligna Halfway house, MASCA, Life Changing, Kungwini Welfare Organization, Second Chance Recovery Centre.
FHS	123	13974	Phyllis Robertson, Melusi clinic, Pta West hospital, Kalafong Hospital
NAS	46	638	Farm Kromdraai and Nlysley Nature Reserve
THE	1	1	Feast of the Clowns – Burgers Park, Pretoria CBD
LAW	2	-	
Total	**233**	**24 357**	

There are rarely any incidents and even fewer claims because communities realise the value of the student's contributions and have been known to drive off people attempting to steal a student's vehicle, for instance. Students apply their knowledge and skills to solve problems in partnership with

local communities, who have identified the problem in their environments. Student learning is highly contextualised for South Africa and includes elements to develop social responsibility. Students learn to work with leaders in mostly marginalised and underserved communities in the inner city or the precincts around the campuses, townships, and informal settlements. However, they also provide their knowledge and skills to museums, zoos, animal sanctuaries, local farmers, and business start-ups. Students help to solve immediate problems and to transfer and develop skills for communities to solve problems independently in the future. Most CCE activities at the University are credit-bearing in the curriculum, and students cannot graduate without showing evidence of achieving the outcomes of modules through CCE. Formal assessment is also required, which can be formative and summative.

2.1.6 Global Online Teaching and Learning at UP

International collaboration on teaching and learning initiatives of various scopes and forms has been part of UP's offerings for many years. This has led to a community of practice (COP) for academics involved in any form of global online teaching and learning. This first-of-its-kind community at UP meets twice a year to learn from one another and share resources online. The 36 currently reported projects include 49 UP lecturers, 91 international lecturers, from 30 countries. The Faculty of Education collaborates with institutions such as Griffith University, the University of Hamburg, and the University of Addis Ababa to facilitate online modules, research methods in educational psychology coursework, and international psychology programmes. The Faculty of Health Sciences collaborates with universities in Belgium, Sweden, Kuwait, France, and Croatia for international discussions in occupational therapy and research supervision support. The Faculty of Economics and Management Sciences collaborates with institutions in the USA, Austria, and Nigeria to develop an international marketing plan and teach experimental design in public administration. The Faculty of Engineering, Built Environment, and IT collaborates with Newcastle University, BA ISAGO University, the Federal Polytechnic, and FH Kufstein Tirol University for NUMBAS support and research supervision support. The Faculty of Natural and Agricultural Sciences collaborates with Ghent University, the University of Leeds, and FANRPAN for the International Masters in Rural Development and research skills in nutrition-sensitive food systems. The Faculty of Theology and Religion collaborates with universities in Austria, Australia, the Netherlands, and Germany for various lectures on biblical themes and texts. Lastly, the Mamelodi Directorate collaborates with institutions in Hong Kong, the USA, Iraq, Morocco, and India for coding, career guidance, cultural exchange, and storytelling projects.

Collaborative online teaching and learning initiatives at the University of Pretoria (UP) showcase the lecturers' dedication to fostering their students' growth and development as global citizens. Key events for the Global Online Teaching and Learning Community of Practice (COP) at UP in 2023 include:

- On 19 May, Mrs. Helga Lister, her global partners (who connected online), and some of her current and former students discussed their experiences with the International Discussions in Occupational Therapy (I-DOT) project. This initiative united over 400 students from eight countries: Austria, Belgium, Croatia, France, Germany, Kuwait, the United Kingdom, and South Africa. The session featured presentations from Mike Jarry (originator, from Artevelde University of Applied Sciences, Belgium), Helga Lister (UP module coordinator), Nabeela Kharva (current UP Project Coordinator), and UP students. They explained how the project allows each institution to tailor student engagement to their curriculum and learning outcomes. This was complemented by insightful small-group discussions led by current and former UP students.
- On 19 October, the COP convened online. Prof. Christa van Aswegen (Griffith University, Australia), Prof. Telse Iwers (University of Hamburg, Germany), Prof. Salomé Human-Vogel (Deputy Dean of Teaching and Learning: Faculty of Education), and two students (one from each of the latter institutions) participated in the discussion. They shared insights on how Teacher Education students from three countries engaged in six online modules, reflecting on teacher education practices in their respective countries.

2.1.7 Loadshedding and Artificial Intelligence

The University has recently revised and updated its teaching and learning plans for 2022-2025. As part of this effort, EI has developed a digital strategy known as the UP T&L Plan for the next five years (Digital Drive) for the same time frame. Amidst the electricity shortage crisis in 2022 and 2023 in South Africa, we formulated the subsequent guidelines for lecturers and students:

- Load-shedding guidelines for lecturers
- Load-shedding guidelines for students

In early 2023, the looming prospect of student strikes due to NSFAS funding issues also surfaced, leading to the closure of numerous universities in South Africa. In anticipation of this, we took proactive measures and created the following plan to enable a smooth transition to remote teaching, if required:

- UP Teaching Continuity for Lecturers
- UP Teaching Continuity for Students

ChatGPT raised the discussion on the impact of Artificial Intelligence in Higher Education upon its activation in November 2022. It has disrupted the status quo globally in higher education as students have begun using it to write their essay submissions. It is essential for lecturers to carefully evaluate the benefits and limitations of these AI technologies, including potential ethical concerns, and to adapt their teaching and assessment strategies to align with the changing educational technology landscape. Therefore, EI developed guides to assist lecturers and students in comprehending the nature and potential use of ChatGPT:

- Lecturer's Guide: Leveraging Generative Artificial Intelligence for Teaching and Learning Enhancement at UP
- Student Guide: Leveraging Generative Artificial Intelligence for Teaching and Learning Enhancement at UP
- Using Generative AI@UP: A Two pager guide

2.2 Enhancement of academics as teachers

EI provides comprehensive workshops and specialised courses to advance hybrid teaching, learning, and assessment practices across the institution. These courses are designed to be engaging and interactive, emphasising sound educational principles and the effective use of relevant technology tailored to the specific needs of each discipline and module. Moreover, the Department of Human Resources at the University supports these priority training courses through funding from the skills levy.

2.2.1 The Scholarship of Teaching and Learning (SoTL) grants

Scholarship of Teaching and Learning (SoTL) in higher education is a valuable mechanism that addresses two key imperatives: supporting lecturers' professional development in teaching within their disciplines, specifically in response to identified learning challenges and enhancing student learning experiences to improve overall throughput. The SoTL grants are part of the University of Pretoria's Capacity Development Grant (UCDG) provided by the Department of Higher Education and Training. The grant aims to promote institutional research to improve teaching and student learning and success. To secure funding for this work is often challenging, as it competes with research funding within disciplinary faculties. By providing seed funding for the scholarship of teaching and learning, we empower lecturers to become reflective practitioners and enhance their teaching practices and student engagement in their respective modules, disciplines, and even across different programmes. In addition to financial support, recipients of SoTL grants also receive guidance on aligning their proposed projects with educational research principles. They have the opportunity to collaborate with

educational consultants to conduct projects to promote systematic processes for identifying and solving discipline-specific challenges either in modules or programmes.

This comprehensive approach aligns with the purpose of the National Framework for Enhancing Academics as University Teachers, which aims to, among others, encourage practices that facilitate the production and sharing of knowledge about university teaching and learning. As such, the SoTL grants provide an avenue for professional development and learning activities driven by specific disciplines, thereby strengthening the ongoing work initiated by staff in Education Innovation. It acknowledges the agency of academics in systematically exploring challenges that impact student throughput and overall success outcomes. By employing appropriate tools and methodologies, lecturers gain a deeper understanding of organising teaching practices that facilitate meaningful student learning.

In 2023, 40 applications were received, and 19 proposals were funded based on review scores. Each grant holder received R20,000. Every grantee must submit a progress report at the end of each year. For example, the recipients of these grants showcased 16 articles or conference papers derived from their Scholarship of Teaching and Learning (SOTL) research. The feedback received from these reports highlights the significant impact that the grants have had on the lecturers' innovative teaching practices and classrooms.

The key findings across various Scholarship of Teaching and Learning (SoTL) reports include:

- ECD Sensory Gardens: Early Childhood Development (ECD) students trained practitioners to create sensory gardens that benefit children's physical and mental health and enhance cognitive abilities through sensory stimulation. Students and practitioners found the experience enriching.
- Educational Videos: The use of interactive educational videos informed by the Community of Inquiry (CoI) and Technology Acceptance Model (TAM) frameworks can significantly enhance teaching and learning experiences in higher education.
- Mathematics Word Problem-Solving: Pre-service teachers' (PSTs) attitudes towards mathematics word problem-solving are influenced by early life experiences. Positive attitudes, enthusiasm, and collaboration in teaching can demystify math word problems for learners.
- Threshold Concepts in Dentistry: Students experienced a transformative understanding of dental concepts through a Case-based Treatment Planning (CBTP) framework, which improved their treatment planning skills.
- Verbal Feedback in Education: Students perceive verbal feedback, through group sessions or individual voice notes, as more comprehensible and motivating compared to written feedback.
- Professional Competencies in Occupational Therapy: Professional reasoning and behaviour, understanding person-occupation-environment relationships, and resource management are key competencies for occupational therapy students.
- TPACK Framework and Online Assessment: The integration of online assessment varies across university modules, with some lecturers using it effectively aligned with module outcomes.
- Virtual Reality in Education: Students believe that Virtual Reality (VR) effectively engages with content and enhances the learning process.
- Comparative Judgement in Grading: Employing comparative judgment for grading is reliable and valid, although it is not more time-efficient than traditional methods.
- Micro-Credentials for Soft Skills: Programmatic assessment with micro-credentials boosts students' understanding of teamwork, with badges serving as motivators and enhancing employability.
- Indigenous Ingredients in Curriculum: Including indigenous ingredients and cultural foods is crucial for curriculum transformation in culinary arts.

- Online Postgraduate Diploma: The fully online Postgraduate Diploma in Public Health offers positive learning experiences but requires further study on feedback strategies.
- Critical Thinking and Ethics in Education: Initiatives to foster critical thinking and ethical judgment in students are underway, with results pending from data analysis.
- Active Learning Paradigm: A shift from passive student roles to active participation was observed, fostering creativity, transferable skills, and a move away from memorisation towards application in learning.

2.2.2 The Flexible Futures Conference

The 9th annual Flexible Futures Conference took place over two days, from 23 to 24 August 2023. Hosted at the Sanlam Auditorium on the Hatfield campus of the University of Pretoria, the event's central theme was "Transforming Higher Education for the AI Era: Embracing Flexibility and Innovation." Designed as an academic platform, the conference enabled staff members from the University of Pretoria (UP) to exhibit and discuss their pioneering approaches to teaching and learning. Additionally, the conference welcomed educators from other higher education institutions who are equally passionate about teaching innovation. The event aimed to address higher education's pressing challenges and opportunities in the rapidly evolving landscape of Artificial Intelligence (AI). The conference was guided by several sub-themes, each offering critical insights into the future of education:

- Implementing Authentic Pedagogy: Ensuring the genuineness of teaching, learning, and assessment in an AI-centric future.
- AI and Student Success: Evaluating AI's role in tutoring, academic support, and enhancing student outcomes.
- Employability in the AI Era: Preparing students for a workforce increasingly dependent on AI technologies.
- Data-Driven Learning: Exploring the synergistic relationship between data and AI in optimising teaching and student success.
- Agility in Higher Education: The importance of adopting agile methodologies in teaching, learning, and assessment.
- Digital Age Curriculum: Developing a curriculum that meets the demands and opportunities of the modern digital world.

Prof Vukosi Marivate is an Associate Professor of Computer Science and holds the ABSA UP Chair of Data Science at the University of Pretoria. Specialising in Machine Learning (ML) and AI, his keynote address focused on the Data Science for Social Impact Lab's efforts to enhance resources and tools for African languages. Dr Kirstin Krauss is a Research Advisor at Worldwide Information Services (WWIS) and a Visiting Researcher for STADIO Higher Education. His lecture posed the provocative question: "Can I use ChatGPT to generate a fully AI-authored thesis?" and examined the scientific relevance of AI-generated content.

A notable feature of the conference was the Deputy Deans: Teaching and Learning panel discussion, which focused on the ethical and practical implications of using Generative AI in education. The conference also featured 55 other presentations and had a total registration of 230 attendees. Of the 230 registered participants, approximately 195 (or 85%) were UP staff members whose attendance was sponsored as part of the University's ongoing commitment to enhancing teaching. The remaining 35 (15% comprised educators from other institutions, including UNISA, Northwest, University of Johannesburg, Stellenbosch University, Akademia, Nelson Mandela, University of the Free State, and the National School of Government.

The conference received overwhelmingly positive feedback:

- Usefulness of the Conference: Average rating of 4.43 out of 5.00 (88.6%)
- Quality of Presentations: Average rating of 4.33 out of 5.00 (86.6%)
- Overall Experience: Average rating of 4.41 out of 5.00 (88.2%)

When asked if they were inspired to present a paper at the next conference, 71.2% responded "Yes," 25.4% said "Maybe," and only 3.4% answered "No."

The themes derived from the qualitative feedback, focusing on aspects that attendees learned about and plan to implement immediately, were as follows: AI in Teaching and Learning, Confidence and Comfort with AI, Ethical and Responsible Use of AI, Assessment and Data Gathering, Tools and Technologies, Critical Thinking and Higher-Level Skills, Community and Collaboration, Future Focus, User Experience and Design, Research, General Positive Feedback, Suggestions for Future Topics, and Miscellaneous Skills.

2.2.3 The UP 2 U workshop

Founded in 2007 at the University of Pretoria, the UP 2 U Community of Practice marks its 16th anniversary in 2023. The theme for the workshop was specifically chosen to illustrate the dynamic nature of the Instructional Design (ID) field, as it is not the first time radical innovations are forcing IDs to re-think the Future of e-learning. It has been a journey from the humble beginnings of computer-aided learning through the impact of social media, mobile devices, the rise of MOOCs and Learning Analytics to the immersive worlds of augmented and virtual reality, and now, Artificial Intelligence. Most technologies were once pedagogical experiments, yet they moved through cycles of adoption and or are now mainstream, central to the delivery of education in diverse settings across the globe.

Irrespective of diverse opinions about AI, as visible in the various themes included in the presentations, it has pushed Higher Education into a frenzied state. It is generally accepted as a significant game-changer. Even most AI tools and experienced Learning Designers will acknowledge its profound imprint on e-learning. The implications are endless, such as enabling data-driven insights, real-time feedback, and adaptive content delivery in Learning Management Systems and other mainstream educational technology systems. In summary, the workshop focused on celebrating AI innovations, pondering their ethical considerations, and collaboratively shaping the next instructional Design and educational technology chapter.

Prof Gerrit Stols from the University of Pretoria's opening presentation focused on integrating AI into Contact Universities Learning Design. Nearly 100 national and international colleagues registered to attend the workshop. Twelve national and two international institutions were represented. Twenty-two online registrations were received. A total of 15 of these colleagues attended more than one of the streamed sessions. Seventy-eight colleagues attended the event.

The workshop received overwhelmingly positive feedback: Thirty-eight colleagues completed the online post-workshop survey.

- Overall, online conference experience: Average rating of 4.19 out of 5.00 (89.2%). Thirteen colleagues provided feedback.
- Overall, in-person conference experience: Average rating of 4.66 out of 5.00 (93.2%). Twenty-four colleagues provided feedback.

A notable feature of every workshop is the photo opportunity for all the attendees. The picture below was taken at the 16th UP 2 U event:

2.2.4 The professional development of academic staff

Effective student learning requires a professional approach to teaching and staff development. By actioning the imperatives outlined in the framework, the Education Consultants (ECs) provide career-stage-appropriate professional development, training, and support to lecturers, focusing on teaching and learning, alternative assessment methods, and curriculum development. Professional development begins with an academic induction programme for all newly appointed full-time and part-time lecturers. From there, academic staff receive tailored career development plans for new and early career academics, established teaching academics, and teaching leaders. The ECs provide initial and continuing professional development and resources for curriculum development, teaching and assessment, and tutoring. The aim of the continuing professional development programme is to develop a combination of Technological and Pedagogical Knowledge (TPK) and skills, which is the knowledge required to integrate appropriate technology into teaching while addressing the complex nature of academic knowledge. The Continuous Professional Development (CPD) programme is tailor-made to support and develop academics at different career stages, including:

- Emerging scholars interested in pursuing an academic career.
- Newly appointed academics and those in the first few years of their careers.
- Established academics who have developed significant teaching and research capacities.

2.2.4.1 Education Consultancy professional development

ECs successfully organised and facilitated courses for academics at all career levels. For example, emerging scholars (tutors, novice lecturers and teaching assistants) participated in institution-wide courses and faculty-specific workshops to ensure that the different contexts of disciplines were addressed in the discussions. Two Academic Induction Programmes (AIP) were successfully offered for newly appointed academics. There were other opportunities for training across the three broad areas – curriculum, teaching and learning, and assessment. These courses were also open to academics who wanted to refresh their ideas about teaching in higher education, specifically at the University of Pretoria. The table below showcases the courses offered in 2023. In some instances, participation in the courses was low; however, it is vital to appreciate this in the context of multiple opportunities for professional learning at the faculty level.

Table 1: Courses offered by the Education Consultancy Unit

Course Title	Facilitators	N=sessions presented	N= Attendees
Academic Induction Programme (530)	ALL ECs are involved	2	118
Accountable Assessment Part 1: Foundation Assessment (A23AAF)	E Mostert & M Lotriet	2	7
Feedback to Students (T21FDB)	E Mostert & M Pienaar	3	11
Accountable Assessment Part 2: Assessment Principles in Practice (A23AAP)	E Mostert & M Lotriet	2	5
Gamification in Teaching (T23GIT)	M Pienaar & A Meintjes	2	18
Inquiry-based Learning (T21IBL)	F Mathibedi & M Pienaar	2	2
Learning Theories for the Digital Age (T21LTD)	M Lotriet & A Hlabane	2	17

Objective Assessment (A21OBA)	E Mostert & M Pienaar	2	20
Planning a Learning Opportunity (T21PLO)	E Mostert & F Mathibedi	2	10
Project-based Learning (T21PJL)	F Mathibedi & A Meintjes	1	4
Rubric Design (A21RUD)	M Lotriet & M Pienaar	1	4
Self-directed Learning in the Classroom	G Barry	2	6
Smart Marking for Teaching Assistant (A22SMA)	F Mathibedi & A Hlabane	6	194
Study Guide (T21STG)	F Mathibedi & A Hlabane	2	17
Teach with Learning in Mind (T23TLM)	G Barry	2	17
Teaching in Different Modalities (T23TDM)	G Barry & A Meintjes	1	4
Teaching Portfolio (D22TPO)	M Lotriet & M Pienaar	4	119
Teaching Students to Question (T23TSQ)	A Meintjes	3	20

Upon reflection, targeted benchmarking was conducted with other institutions in the sector to develop a perspective on continuous professional development opportunities. The team then reworked the focus, structure, and timing of the courses. Equally important was examining how information about the courses was shared across faculties to encourage participation. The ECs revised the Academic Induction Programme to ensure its comprehensiveness and further streamlined scheduled professional development courses in accordance with the University's Policy on Professional Learning. In 2024, there will also be a deliberate focus on opportunities to support lecturers appointed on a contract and/or part-time basis, as well as teaching assistants, to ensure they are prepared for their responsibilities in their respective capacities.

Various other faculty initiatives to promote knowledge sharing and continuous professional learning in university teaching and learning include Brown Bag lunches, webinars, and resource-sharing via faculty-based clickUP modules. Faculty-specific training included the following:

Table 2: Faculty-specific training

Faculty	Training offered	Facilitator/s	Date	N=Attendees
EBIT	INNOVIL - customised education induction course for assistant lecturers (CIL)	G Barry	16-20/01/2023	41
	INNOVIL - customised education induction course for assistant lecturers (CIL)	G Barry	15-16/02/2023	9
	BES220 Assessment (Industrial and Systems Engineering)	G Barry	29/08/2023	3

	Information Science assessment	G Barry	02/08/2023	21
	EBIT Aspirant Assessors	G Barry	04/08/2023	8
	EBIT Aspirant Assessors (Information Science)	G Barry	11/08/2023	9
	Information Science NQF levels	G Barry	16/08/2023	16
	COS750 guest lecture on assessment (Computer Science)	G Barry	28/08/2023	52
	ENGAGE workshop	G Barry	28-30/08/2023	6
EMS	Objective Assessment	E Mostert & M Pienaar	07/11/2023	7
Health Sciences	Clinical Educator Training: How to provide feedback to students	A Meintjes	02/02/2023	29
	Clinical Educator Training: How to provide feedback to students	A Meintjes	19/02/2023	26
	Study Guide workshop	A Meintjes	15/02/20232, 23/02/2023	43
	Study Guide workshop	A Meintjes	14/03/2023, 22/03/2023, 24/03/2023 & 31/03/2023	62
	Study Guide workshop	A Meintjes	03/04/2023	19
Humanities	Humanities Practical Tutor Training (General)	M Lotriet	16-17/02/2023, 25/03/2023 & 5/08/2023	125
	Practice supervisor training (SLPA)	M Lotriet	10/03/2023	31
	Humanities Teaching and Learning Discussion	M Lotriet, A Meintjes & G Stols	14/03/2023	26

	Generative AI and Humanities: Addressing Challenges for T & L	M Lotriet	12/05/2023	32
	Goals Tool	M Lotriet	29/06/2023	5
	Assessment of Drama Essays	M Lotriet	14/08/2023	12
	Humanities Teaching and Learning Discussion	M Lotriet	10/10/2023	17
	Humanities Tutor Colloquium	M Lotriet	25/10/2023	30
Law	Curriculum Development workshop	A Hlabane	17/05/2023	14
Mamelodi Campus	Meaningful Consultations Seminar (for students)	F Mathibedi	23/08/2023	83
	Assessment Workshop	M Rollnick F Mathibedi	3/11/2023	18
NAS	Peer Review (Class Observations)	I Louw	12/05/2023	62
	Induction Lite	I Louw	17/07/2023 & 24/07/2023	47
Theology	Curriculum design basics	M Pienaar	17/11/2023	12
Veterinary Sciences	Faculty Specific Tutor Training	E Mostert	04/03/2023 - 31/07/2023 & 01/08/2023	35

The professional development opportunities offered include courses that assist academics in developing their academic and teaching portfolios, a requirement for permanent appointments, promotions, and Teaching and Learning Awards applications. This approach ensures that academics are recognised and rewarded for their work as university teachers.

2.2.4.2 e-Education professional development

The e-Education group employs various strategies to develop lecturers' autonomy using institutional e-education systems. Continuous professional development is a critical component of this approach that enable lecturers to use tools such as clickUP, Turnitin, and QuestUP in an educationally sound manner. Different formats are offered, including priority courses (available in facilitated and stand-alone online formats), faculty or departmental training sessions based on requests, and individual just-in-time training. The offering is set out in a booklet that provides detailed information on workshop descriptions, topics, and outcomes.

All e-education priority training was presented in computer laboratories in 2023 to provide the best possible support to lecturers as they learn the new educational technologies. A report on the first six month's e-education training was submitted to the T&L Senate Committee in August. In 2023, the e-education team returned to fully contact presentation of the priority courses, and the self-paced

online courses remained available to lecturers. Twenty eight sessions of our 14 original courses were presented in computer laboratories in 2023, with an average feedback score of 95% for all courses. Ten courses were canceled due to low registration rates. The last QuestUP session had to be abanded at 10h00 due to a loss of internet and power after the Merensky generator failed. An online session was scheduled to do the part of the training that was missed due to the power outage, but only 3 people attended. The stand-alone online courses' completions doubled compared to 2022, with 65 completions in 2023 compared to 33 completions in 2022. The attendance and feedback of these courses are provided in the table below.

Table 3: Number of participants who completed e-education priority courses in 2023

Course	Contact Session Attendees	Dates	Average Feedback score	Online Course Completions	Total no. of completions
clickUP Administrators	35	2 Feb, 25 Jul	.82	-	35
clickUP Overview	28	6 Feb, 12 Jun	.98	32	60
clickUP Content	22	7 Feb, 13 Jun	.95	5	27
clickUP Assessment	23	8 Feb, 14 Jun	.93	4	27
clickUP Collaboration/ Modalities of Participation	7	9Feb, 20 Jun*	.98	0	7
clickUP Metrical	0	10 Feb*, 21 Jun*	-	1	1
Turnitin	29	16 Feb, 18 Apr*, 16 Aug, 15 Nov*	.97	4	33
Tii Grading and Feedback	17	17 Feb, 20 Apr*, 18 Aug, 16 Nov*	.93	1	18
Grade Center	35	23 Feb, 19 Apr*, 27 Jul, 14 Nov	.98	2	37
Narrated PPTS	15	21 Feb, 01Aug	.97	8	23
Trendy Tools for Cool Lectures	12	15 Feb	.99	-	12

Course	Contact Session Attendees	Dates	Average Feedback score	Online Course Completions	Total no. of completions
ELA	0	11-12 Oct*	-	-	0
In-Video Assessment	16	28 Feb, 03 Aug*	.95	2	18
Blackboard Class Collaborate	15	22 Feb, 15 Aug	.99	6	21
QuestUP	77	23 & 24 Jan, 7 & 8 March, 5 & 6 Sept	.96	-	77
Total attendees, average feedback score	**331**		**.95**	**65**	**396**

*Course cancelled due to low registrations (not available online)

The self-paced online courses remained active since its development and is still frequently used by academic staff as indicated in the figure and therefore remains a valuable means of support for academic staff.

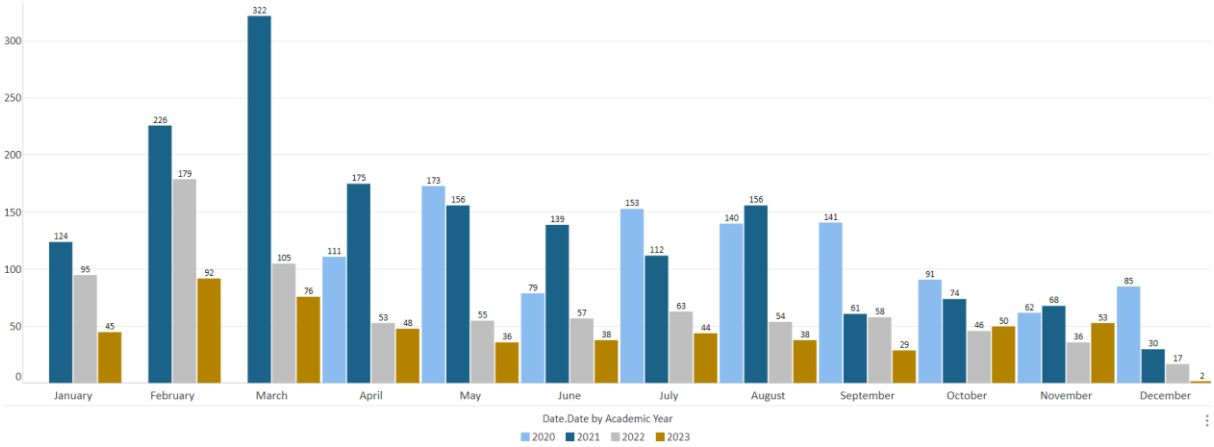


Figure 13: Monthly distinct users active in the self-paced online course

Table 4: Comparison of attendees of e-education priority courses over the last five years

Courses	2019	2020	2021	2022	2023
clickUP Assist/Administrators	47	13	24	25	35
clickUP Overview	65	27	82	69	60
clickUP Content	49	26	69	65	27
clickUP Assessment	64	26	70	71	27

clickUP Collaboration/modalities for participation	47	14	42	27	7
clickUP Metrical	29	11	42	32	1
Turnitin	38	29	63	38	33
Turnitin Grading and feedback	28	18	50	24	18
clickUP Grade Center	78	33	79	73	37
Creating digital lectures /narrated PPTS	38	19	54	45	23
Mobile tech / Trendy tools	56	16	52	36	12
ELA	27	10	18	8	0
In-video assessment	-	29	51	32	18
Blackboard Class Collaborate	-	-	55	55	21
QuestUP	48	9	34	124	77
Totals	**566**	**271**	**751**	**724**	**396**

New courses

The e-education training team focused their attention on the development of a new clicker course and new courses to support the implementation of clickUP Ultra. Five new courses were developed to assist lecturers and one course was developed for academic administrators. The courses were quality assured within the department, and thereafter presented in May to the lecturers who participated in the first phase implementation. They provided overwhelmingly positive feedback regarding the courses presented. The changes they suggested were implemented for the second phase lecturers' training.

Course	Contact Session Attendees	Dates	Average Feedback score
Clicker Training	20	14 Feb, 26 Jul	.96
clickUP Ultra Overview	257	29 May, 18 Sept, 2 Oct, 16 Oct, 6 Nov, 27 Nov	.96
clickUP Ultra Content	223	30 May, 19 Sept, 3 Oct, 17 Oct, 7 Nov, 28 Nov	.96
clickUP Ultra Engagement	181	31 May, 20 Sept, 4 Oct, 18 Oct, 8 Nov, 29 Nov	.98
clickUP Ultra Assessment	191	1 June, 21 Sept, 5 Oct, 19 Oct, 9 Nov, 30 Nov	.98

clickUP Ultra Grading & Gradebook	190	2 June, 22 Sept, 6 Oct, 20 Oct, 10 Nov, 1 Dec	.94
clickUP Ultra Administrators	25	31 Oct	.86
Totals	**1087**		**.95**

Table 5: Comparison of attendees of e-education priority courses over the last five years

Courses	**2019**	**2020**	**2021**	**2022**	**2023**
clickUP Assist/Administrators	47	13	24	25	35
clickUP Overview	65	27	82	69	60
clickUP Content	49	26	69	65	27
clickUP Assessment	64	26	70	71	27
clickUP Collaboration/modalities for participation	47	14	42	27	7
clickUP Metrical	29	11	42	32	1
Turnitin	38	29	63	38	33
Turnitin Grading and feedback	28	18	50	24	18
clickUP Grade Center	78	33	79	73	37
Creating digital lectures /narrated PPTS	38	19	54	45	23
Mobile tech / Trendy tools	56	16	52	36	12
ELA	27	10	18	8	0
In-video assessment	-	29	51	32	18
Blackboard Class Collaborate	-	-	55	55	21
QuestUP	48	9	34	124	77
Totals	**566**	**271**	**751**	**724**	**396**

The administrative and logistical challenges posed to the clickUP training team in 2023 led to a few changes in the way the team functions to present high-quality e-education professional development:

- All administration related to the priority courses shifted from EUP to EI, and the funding was transferred to the department. The project manager and administrative assistants experienced a significant impact on their workloads, encompassing tasks such as managing registrations, attendance registers, refreshments, and communication. To alleviate the workload and ensure accurate statistics for HR reporting, we created a Google form and registration process to ensure the correct capturing of the necessary data. This tool automates

the reporting process and safeguards attendees' personal data, promoting efficiency and privacy.

- Budget constraints necessitated the elimination of printing costs for handouts. Consequently, we now distribute materials electronically, with lecturers responsible for printing their hard copies as needed. To ensure enough funding to upscale the clickUP Ultra training in 2024, we submitted requests to the HRDC to allow more participants per workshop as well as a UCDP grant application.
- Securing computer laboratories for training became a challenging endeavour due to complications with the new online booking system, the examination timetable, and the allocation of the Maroon Laboratory in the Informatorium to classes and examinations. Consequently, excessively long waiting times, in some cases spanning up to 11 months, were experienced before confirmation of venue availability. We also had to move to different venues on very short notice on a few occasions. Regular communication with the SCS team responsible for the management of the laboratories was key to ensuring that we had venues available for each session.
- Severe load-shedding schedules, unreliable generators and insufficient air conditioning impeded our capacity to conduct high-quality training sessions, as we often needed more electricity and internet access. In response to this, the clickUP Ultra training team proactively addressed potential disruptions in concise demonstration videos as a precaution in case of an internet outage during the Ultra training sessions. We also acquired emergency lighting solutions to allow staff to move out of the venue if needed safely.

Adhoc training

The e-education group also organised two institutional, two faculty-wide, and nine departmental sessions to assist lecturers with online teaching and assessment. Additionally, six training sessions were presented to 121+ tutors. The details of these sessions can be found in the following tables.

Table 6: Ad-hoc e-Learning, Training, and Information sessions

Topic (s) covered	Date	Faculty & Dept(s)	Campus	Number of attendees	Duration	Presenter
clickUP training	20/01/23	Innovil lecturers	Hatfield	24	4 hours	A Smart & J Maroga
In-video assessment	10/02/23	Early Childhood Education	Groenkloof	8	2 hours	M Thukane
QuestUP	01/03/23	All	Online	28	1 Hour	CBT staff
Connect Yard/WhatsApp	02/03/23	All	Online	62	1 Hour	Dennis Kriel
PointSolutions Clicker training	08/03/23	Humanities	Hatfield	7	2 hours	K Sebake
clickUP training	19/05/23	ECD/DE	Groenkloof	8	3 hours	J Maroga
Peer review	24/05/23	TVET Managers	Groenkloof			J Maroga
Turnitin training	21/06/23	ECD/DE	Groenkloof	8	2½ hours	J Maroga
Orientation to clickUP	26/07/23	Agricultural Economics	Online	14	1.5 hours	M Thukane
clickUP tutorial, Tii,	10/08/23	English	Hatfield	22		G Pretorius

Quickmarks and QuestUP						
clicker training	15/08/23	Medical Microbiology	Prinshof	8	3 hours	K Sebake
Clickers Training	01/09/23	Chemistry	Hatfield	4	2 hours	K Sebake

Table 7: e-Tutor training 2023

Course	Date	Number of attendees	Duration	Presenters
Humanities Tutors: Arts and Language	16/02/23	19	4 hours	G Pretorius
Humanities Tutors: General and Professional Social Sciences	17/02/23	59	4 hours	G Pretorius
Humanities Tutors	24/03/23	9	2 ½ hours	G Pretorius
Humanities Tutors	04/08/23	26	4 hours	G Pretorius
Introduction to clicker app for Humanities Tutor Co-ordinators	16/03/23	8	2 hours	K Sebake
Total		121	16 ½ hours	

2.2.4.3 PeopleSoft career development portlet

The outgoing Head of the Education Consultancy Unit, Dr S Haupt, in collaboration with the Human Resources and Information Technology departments, has developed a portlet system designed to enhance continuous professional development. This innovative system offers convenient access to a wide array of professional development opportunities, including various courses and resources. Its primary objective is to efficiently coordinate and manage the professional development activities of lecturers.

Additionally, the portlet is set to introduce a reporting feature, which will enable lecturers and their line managers to comprehensively view and monitor all aspects of professional development. The pilot phase of this system has already commenced and is scheduled to continue into the first quarter of 2024. This initial phase is primarily focused on assessing the system's capabilities and overall functionality, ensuring it serves as a robust and streamlined solution for professional learning, ultimately benefiting the academic community.

2.2.5 Supporting academic staff

The primary objective of the Educational Innovation (EI) Department is to train and develop academic staff professionally. However, it is recognised that many staff members require tailored assistance to effectively utilise educational technology and enhance the quality of their teaching, thereby facilitating efficient learning. Lecturers responsible for the high impact modules (HIMS) are given top priority for intensive, individualised support. This assistance is accessible via a variety of resources, including Educational Consultants, Instructional Designers, and the Creative Studios Unit. To ensure focused support, dedicated Educational Consultants and Instructional Designers are assigned to each Faculty. The specific allocation of these professionals to various Faculties is detailed in the table below:

Faculty	Educational consultant (EC)	Instructional designer (ID)
EMS	Dr Rejoice Nsibande	Kingsley Sebake
Education	Dr Marius Pienaar	Jacky Maroga
EBIT	Gail Barry	Alastair Smart
Humanities	Marena Lotriet	Gaby Pretorius
LAW	Alfred Hlabane	Dennis Kriel
NAS	Dr Nonkanyiso Vokwana	Mpho Thukane
Theology	Dr Marius Pienaar	Gretchen Jacobs
HEALTH	Anneri Meintjes	Dr Hannelie Untiedt, Dr Nomathemba Ngcobo & Erika de Bruyn
VET	Dr El-Marie Mostert	Velly Nkosi
Mamelodi	Faith Mathibedi	Ciska Snyman

2.2.5.1 Educational Consultants' work in faculties

Educational Consultants (ECs) have significantly contributed to numerous initiatives across various faculties, primarily in strategic discussions for curriculum improvement. These contributions include programme review activities, encompassing five programmes in Health Sciences and one in Economic and Management Sciences. Additionally, they have been involved in LLB curriculum transformation discussions and the development of a benchmark test in Law, aimed at implementing timely interventions. ECs also played a role in module and study guide reviews across several faculties, including Health Science, EBIT, Education, NAS, and VET. Furthermore, their participation in the B.Ed. competency mapping Task Team within the Faculty of Education is notable. In Mamelodi, curriculum work centred on supporting recirculation efforts to enhance articulation in extended programmes, a critical step towards facilitating smoother student transition.

Working in close collaboration with Deputy Deans, ECs have also led and supported notable faculty initiatives to advance teaching and learning. Unique activities in specific faculties include:

- In the Faculty of Natural and Agricultural Sciences, support was provided to lecturers, especially those new to teaching or the university, through initiatives such as UP Starters, Induction Lite, and FLY@NAS, which focus on continuous professional development addressing faculty-specific needs. Several sessions were held throughout the year.
- The "Digital Learning Lounge" is a collaborative venture between the Deputy Deans of Teaching and Learning in the Faculties of Health Sciences and Veterinary Science. It comprised online lunchtime sessions covering various topics to support continuous professional learning. Academic staff from both faculties and their education consultants presented these sessions, open to lecturers' university-wide and recorded for broader dissemination.
- In the Faculty of Education, a new initiative organised discussions on institutional policies and guidelines to enhance understanding and implementation. The inaugural 'Let's Talk' session focused on Assessment.
- A training programme for teaching support staff in the Faculty of Humanities has been developed, with the first session scheduled for February 2024.

- In the Faculty of Humanities, a colloquium titled “Tutor Training Treasures and Trivia: Becoming and Standing Strong as a Tutor” was held. It featured tutors from six departments and a tutor coordinator, addressing themes like adapting to a post-COVID world, dealing with AI, and supporting differently abled students. The session provided valuable insights for a longitudinal study in the Faculty of Veterinary Science, initiated in 2009 for BVSc and BVetNurs students, which systematically collects annual feedback to inform undergraduate programme enhancements. The study includes various year groups, focusing on course experience, support needs, and plans.
- The Faculty of Law, in collaboration with the EC and the Academic Literacy department, embarked on an LLB literacy benchmark test project. This project aims to design a test for first-year LLB students, identify early literacy challenges, and facilitate relevant curriculum interventions.

Teaching and learning consultations across all faculties enable academics to pursue self-directed learning based on identified needs. This approach ensures that interventions are targeted and highly effective in supporting academics' efforts to enhance their practice and develop pedagogical competence. Activities in this realm include assisting with assessment-related queries, developing or reviewing study guides, creating teaching portfolios, and conducting peer reviews, such as classroom observations. The latter, in particular, was a primary focus for all Educational Consultants (ECs) to varying extents. ECs provided comprehensive peer review reports, augmenting the experience with opportunities for professional development for individual lecturers.

The experience with peer reviews in 2023 underscored the need to expand the pool of reviewers. This expansion aims to distribute the responsibility more broadly rather than relying solely on the ECs. In one faculty, the Natural and Applied Sciences (NAS), training for potential peer reviewers across departments was initiated. Looking ahead to 2024, faculties will be encouraged to provide peer review training to increase capacity for addressing all review requests and to diversify feedback. This strategy is anticipated further to enhance the quality and impact of the learning experience.

2.2.5.2 Instructional Designer development and support

The e-Learning professional development team consists of Hannelie Untiedt (Project Manager), Jacky Maroga, Estelle Drysdale, Alastair Smart, Mpho Thukane, Dennis Kriel, Detken Scheepers, Johan Slabbert, and Kingsley Sebake. Mr Johan Slabbert is the Project Manager of Educational Technology and also oversees the support provided to staff. Gretchen Jacobs manages the support office on the Hatfield Campus, and Ephodiah Mdluli at the Prinshof Campus. The assessment team consists of El-Marie Mostert (Project Manager), Gaby Pretorius, Erika De Bruyn, Noma Ngcobo, Velly Nkosi, supported by Mark Sias, Yolanda Kweyama, and Thino Rajab as computer-based testing assistants.

Instructional Designers (IDs) guided lecturers on using clickUP modules. During the lockdown period, the focus of this guidance and support shifted to include better online teaching practices, the use of narrated PowerPoints, the use of Class Collaborate for synchronous sessions, and the educational use of clickUP assessment tools. Additionally, significant support was provided on using the Grade Center as all marks were recorded in the clickUP Grade Center.

EI has two e-support offices, one that serves the Hatfield, Groenkloof and Mamelodi campuses and another that supports the Prinshof and Onderstepoort campuses. Three staff members are allocated to these offices. These offices aim to focus on the administrative side of e-learning, while the IDs provide educational advice and more advanced support. During 2023, these offices were responsible for the following support: supporting > 7000 staff and student email requests, the manual creation of clickUP modules and the enrolment of students and staff, 186 merged enrolment modules, 850 programme modules with 6000+ user manual enrolments, 37 residence clickUP pages, 40 Faculty

clickUP pages, 500 clickUP practice modules, 500 Ultra Practice and 5 000 Ultra sandbox modules, 284 EUP courses created and 5000+ EUP users created/enrolled, 25 PUA (Pre-University Academy) courses created, and 127 students enrolled. J Slabbert also had to create and enrol 100+ Sponsored Guests via Permission Manager (Exam Moderators and Semester 2 staff).

The table below shows the email and just-in-time training provided to staff and students per month by each e-support office. The support levels fluctuated in correspondence to the academic calendar, with more support requested at the beginning of semesters and during exams. In general, lecturers seemed to have a higher level of proficiency in using clickUP, as evidenced by the decrease in support requests and a change in the type of requests received.

Table 8: Comparison of the number of individuals supported by the e-support office 2019 - 2023

	Email responses				**Just-in-time training**			
	2020	2021	2022	2023	2020	2021	2022	2023
clickUP e-support (Hatfield) (Include emails from students)	7 415	7 892	5 973	4 960	342	137	109	62
clickUP e-support (Health Sciences staff)	593	1 321	1 103	688	5	3	1	0

Table 9: Modules on clickUP 2017-2023

	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
UG modules	2,405	2,460	2,364	1957	1991	2054	1988
%UG modules	94.13	94,43	95.2	97.9	97.6	94.3	95.6
PG modules	1,213	2245	2263	1292	1340	1333	1361
% PG modules	37.4	37.6	47.1	59.9	60.4	59.2	59.7
Number of departments	117	117	115	113	112	109	109

Additionally, Instructional Designers successfully completed the redevelopment of two educational applications in 2023:

- The 'Soil' application, developed for the Department of Plant Production and Soil Science within the Faculty of Natural and Agricultural Sciences, was completed and subsequently deployed to students in the first semester.
- The Maxillofacial Pathology Mobile application was enhanced through the integration of a quiz feature. This updated version was completed and distributed to students during the second semester.

2.2.5.3 Teaching and Learning Media Support

The Creative Studios Unit assists lecturers in enhancing access and successful student learning by creating engaging audio and visual materials. The Hatfield Graphic Studios, supporting the Prinshof and Onderstepoort campuses, produce graphic designs for teaching and learning, as well as posters and animations. The Creative Studios Unit is represented across three UP campuses. These facilities are managed by Ms Marizanne Booyens (Prinshof Studio), Ms Estelle Mayhew (Onderstepoort Studio), and Ms Hettie Mans (Hatfield Studio), all of whom report to Mr Almero du Pisani. On the Prinshof campus, Ms Marizanne Booyens and Ms Mmatlhapi Mhlakaza are the graphic designers, while Mr Anton van Dyk is the video producer. At Onderstepoort, there is only Ms Estelle Mayhew, who is a graphic designer. The Hatfield campus has three graphic designers: Ms Hettie Mans, Ms Rita Dave, and Mr Keith Mankgane. There are also two video producers at the Hatfield Campus: Mr Andre du Plessis and Ms Dinika Misthry Chunilall. The video and graphic staff render services to all campuses on a matrix management model.

The Creative Studios Unit collaborates with lecturers to design, film, and edit short educational videos linked to teaching and learning. Graphic designers and videographers also work with instructional designers and lecturers on multimedia design and development. Additionally, they provide facilities and expertise in video conferencing to cater to the needs of teaching and learning and the Executive. The unit offers strategic leadership for designing, developing, and implementing media in teaching in both contact and online environments. In 2023, the Creative Studios Unit produced over 622 video and graphic projects.

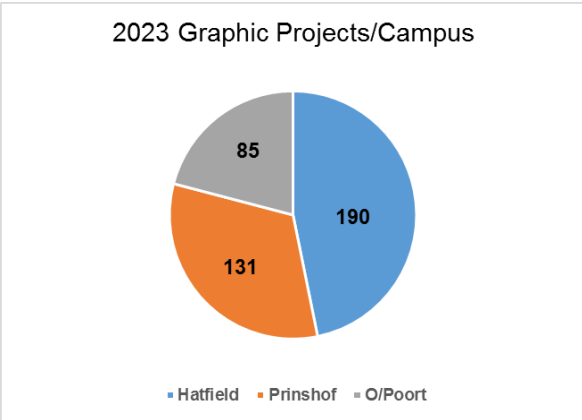
An example of a video production studio can be seen below. A significant amount of video production work stems from using the video production studio at EI. The setup in the example below was for Prof Ouma to film against our green screen background. The background was then replaced in post-production with other images/logos. The studio also has a teleprompter from which a person can read a script in cases where the content is too complex to remember. Please visit https://www.youtube.com/watch?v=5jP0yuANECA to view the video created.

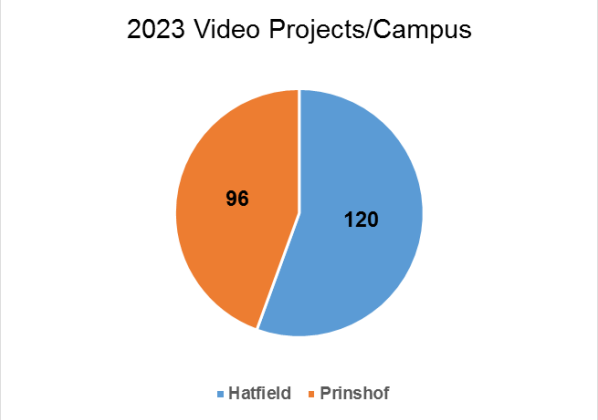
Figure 14: Video studio

In 2023, Creative Studios at the three different campuses successfully executed a diverse range of projects, serving the nine faculties. Their expertise was leveraged in various domains, including eLearning enhancement, teaching support, conference design, clickUP integration, academic research, and providing ad hoc design assistance. These services were instrumental in clarifying academic processes and frameworks, thereby contributing significantly to the campus's academic operations. The graphic design studio is actively exploring the integration of artificial intelligence into their workflow, seeking innovative ways to enhance creativity and efficiency through AI-driven techniques.

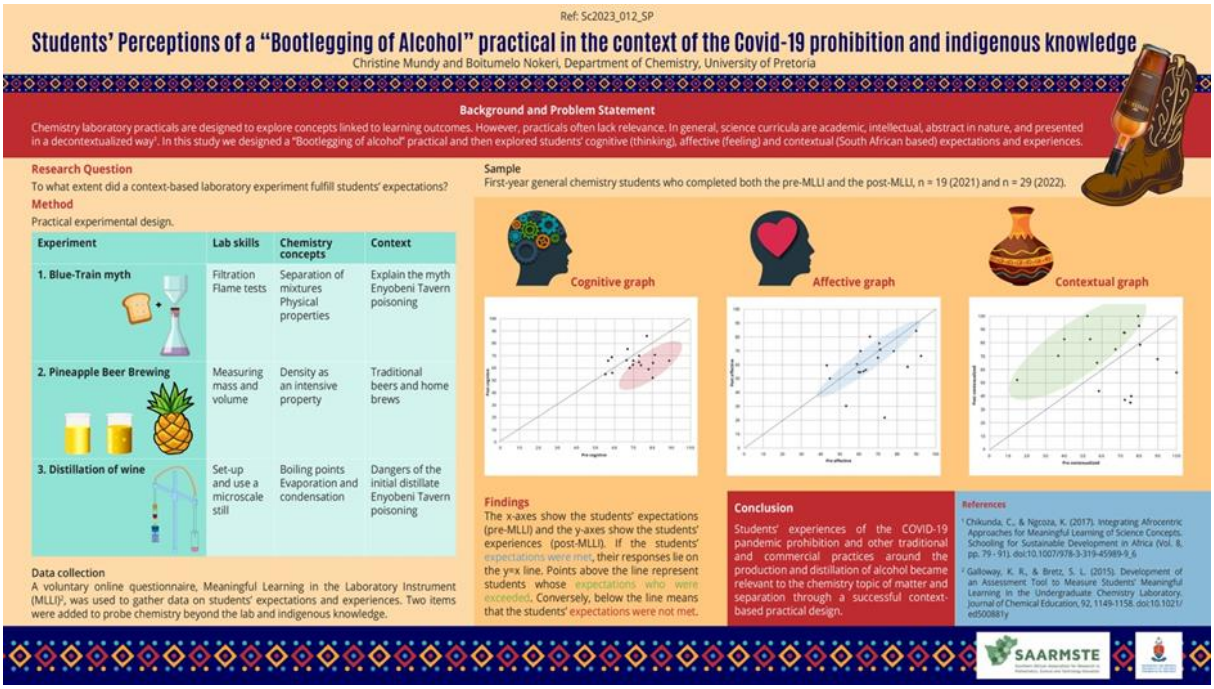
The video team from the Hatfield Campus, Andre du Plessis and Dinika Misthry Chunilall, was commissioned by the Centre for Human Rights to document the 32nd Christoff Heyns African Human Rights Moot Court Competition. This prestigious event was held in Kumasi, Ghana, in September 2023. The event was captured in detail through their expert filming.

The video team also produced a large number of teaching and learning videos, as well as videos for UPO. With tight deadlines and student unavailability during exams, the team accepted the challenge of producing 12 UPO videos on Study Methods. Voice-over artists are expensive, and due to time limitations, they used AI to produce all the videos for UPO. ChatGPT was used for the scripts, DALL-E and Photoshop's Generative Fill visualised, and Murf AI voiced over, seamlessly bringing the video projects to life. With Envato's musical flair and Canva's final touches, this AI-powered collaboration assisted the team in timely delivering professional productions. It is important to note that while they utilised AI, they played a central role in guiding and executing the majority of the work.





Examples of Graphic Projects produced:



The Bootlegging Poster won at the Southern African Association for Research in Mathematics, Science and Technology Education (SAARMSTE) 2023 Conference:

- Client: Dr Christine Mundy
- Faculty: NAS
- Department: Department of Chemistry
- Designer: Rita Dave

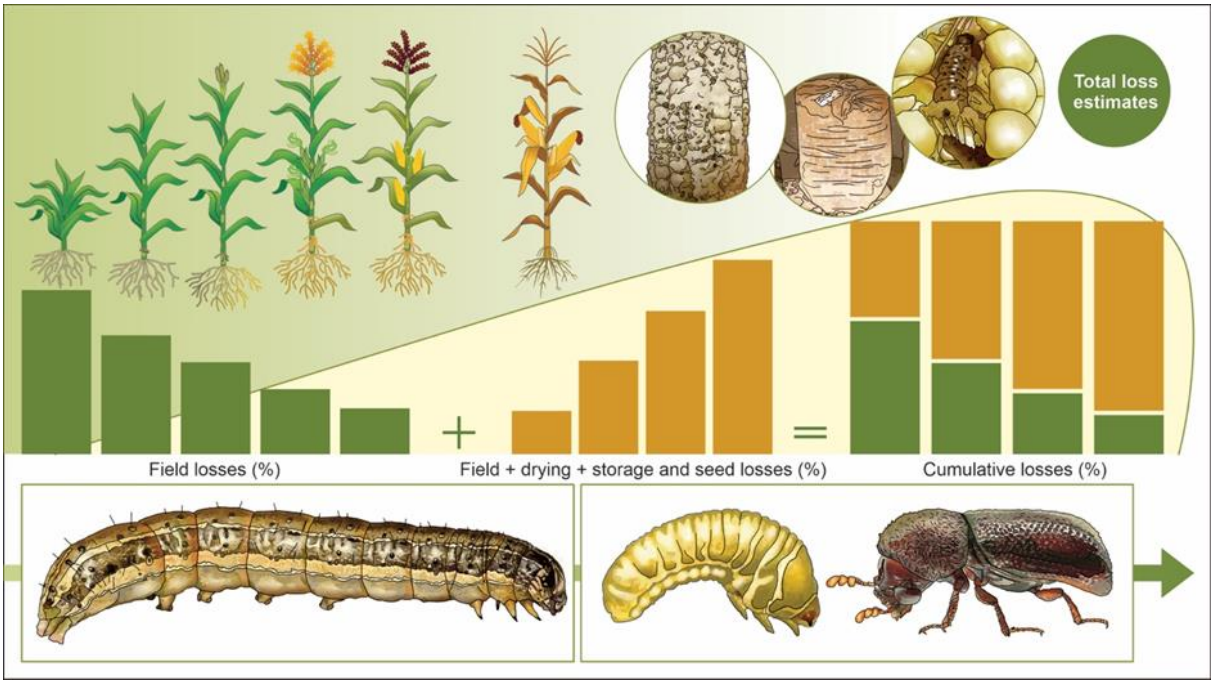
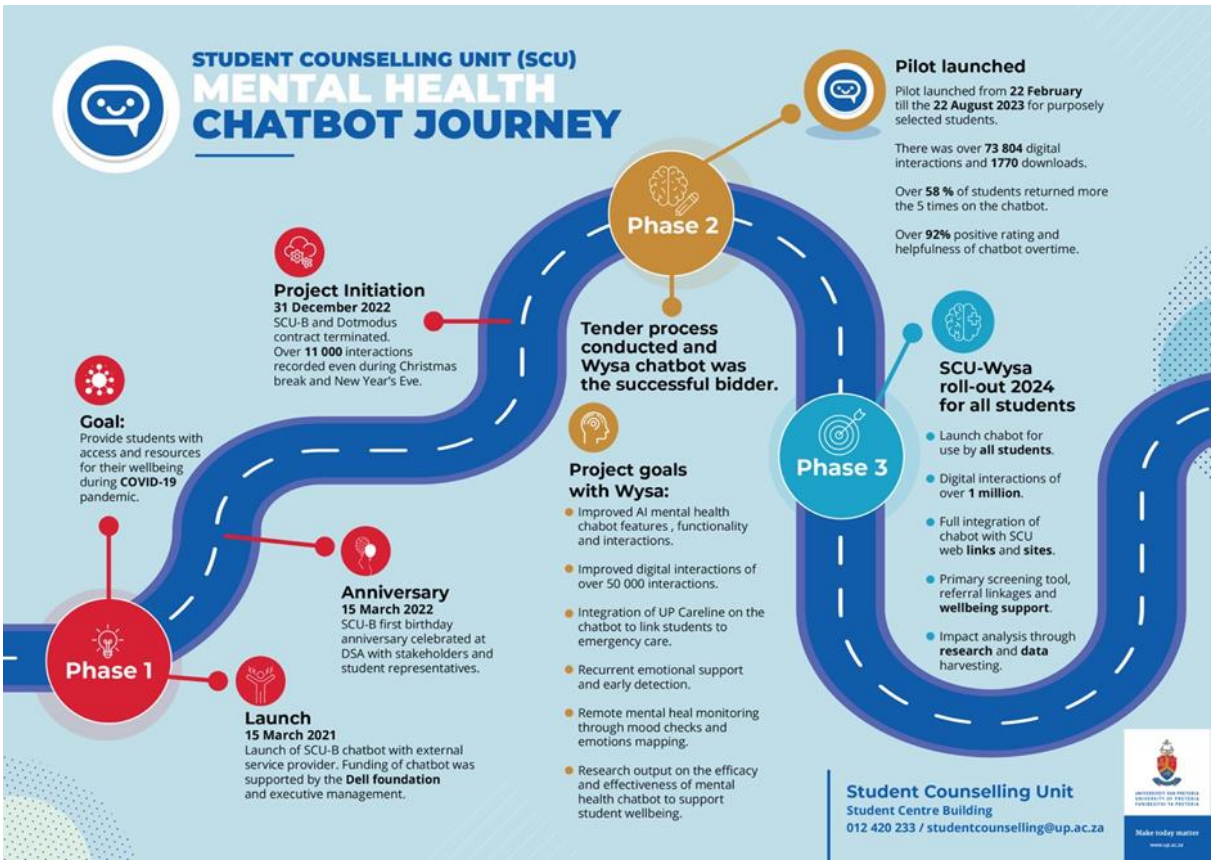


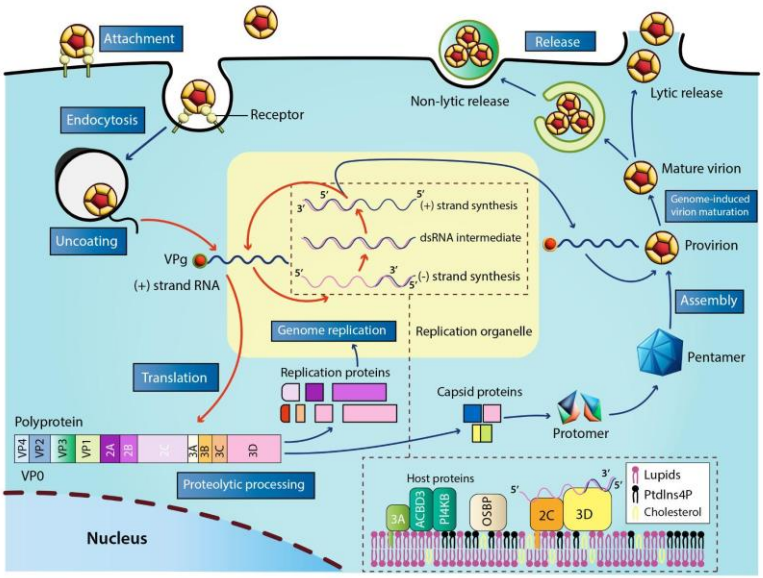
Illustration - There are two invasive species of insects in southern Africa that both attack maize at different stages of the crop; in field and in storage (successional crop damage) - however, the cumulative crop loss impact goes to the same farmer, so pest management initiatives need to be

premised on this basis and within the context of total impact to farmer as opposed to current focus on individual pest at a time.

- Client: Dr Honest Machekano
- Faculty: NAS
- Department: Department of Zoology and Entomology
- Designer: Estelle Mayhew



- Client: Ms Mashudu T Nefale
- Student Counselling Unit (SCU)
- Department: Department of Student Affairs
- Designer: Keith Mankgane



- Client: Ms Walda van Zyl
- Department: Department of Medical Virology
- Designer: Mmatlhapi Mhlakaza

Examples of Video productions:

Ghana 32nd African Human Rights Moot court competition:

3D Animation: These animations depicted the water flow between two properties involved in a legal dispute, effectively clarifying the complexities of the case for Professor Muller's students.

Student Development: Series of 14 training videos. These videos were produced for Student Development and Leadership for 2024.

2.3 Educational technology infrastructure

A crucial component of EI's efforts involves supplying the University with digital platforms for teaching, learning, and fostering student achievement. The University of Pretoria employs Blackboard Learn as LMS, called clickUP, and Blackboard Mobile, which serve as vital instruments for enabling hybrid learning. By integrating cutting-edge technologies, we strive to bolster teaching, learning, and student success. In 2020, we introduced and incorporated a variety of software solutions to enhance our teaching and learning framework, including:

- VitalSource, an e-book platform for streamlined inclusive access management.
- H5P, a tool for creating in-video assessments.
- Turning Point Solutions Mobile Clicker app, a student response system.

Additionally, we have encouraged the use of Open Educational Resources (OER), with a particular focus on Open Stax.

Table 10: The University's digital teaching and learning ecosystem

PREPARE before class	ENGAGE in class	CONSOLIDATE after class
Textbook / eBooks	Clicker Mobile App	Assessment platforms
E-textbook platform	Blackboard Class Collaborate	Class recordings
OER		Plagiarism software
Video platform		Online proctoring
Courseware authoring tools		ePortfolios
H5P in-video assessment		
Learning Management System (LMS): clickUP – Anthology Learn & Anthology Mobile		

Student feedback platform: Watermark Course Evaluations & Surveys
Change management and student support platform: Impact
Digital credentialing platform: Anthology Milestones (2024)

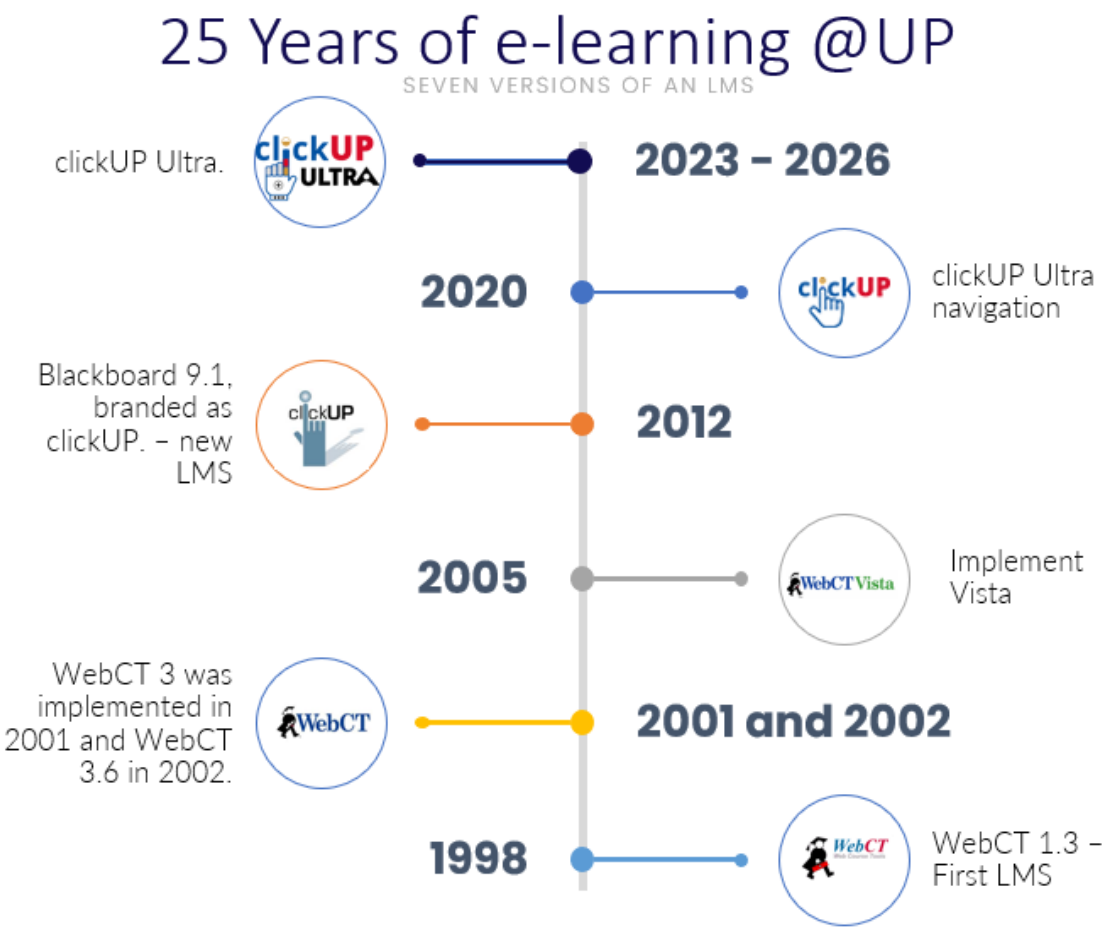
In 2021, the Department implemented additional educational technology to support online learning and assessment, namely Proctorio, Gradescope, and Cirrus Assessment. Proctorio uses advanced machine learning and facial detection technology to deliver accurate, reliable exam proctoring. Gradescope is a feedback and assessment tool that dramatically reduces the pain and time associated with grading exams, homework, and other assignments. This tool helps lecturers administer and use AI to grade all online or in-class assessments. The cloud-based Cirrus Assessment system replaced the QuestionMark Perception product used for computer-based testing. This project consolidated the previous five databases, which contained more than 200,000 assessment questions, into one database. This made integrations with the PeopleSoft system and clickUP Grade Center possible.

Additional platforms supporting teaching and learning processes include Watermark Course Evaluations & Surveys, Anthology Milestones for digital credentialing purposes. In 2022, Instructure's Impact change management software was introduced to facilitate digital transformation and adoption by providing insights for LMS-integrated messaging and technology usage. Instructure’s Impact software will be replaced by Anthology Adopt in 2024.

The figure illustrates the University of Pretoria’s current teaching and learning digital ecosystem:

2.3.1 Learning Management System: Blackboard Learn (clickUP)

In 2015, the University shifted from a locally hosted platform to a managed hosting environment. In December 2019, we adopted Software as a Service (SaaS), which enabled a continuous delivery environment. SaaS reduces downtime by permitting continuous updates with minimal or no disruption. In January 2020, we implemented clickUP Ultra Navigation. The University renewed its contract with Anthology (Blackboard) for another five years, beginning in 2021.



The figure illustrates the use of different LMS versions since 1998

Beyond the LMS, Blackboard Learn (clickUP), the University's technology is incorporated into a flipped-learning methodology. The Learning Management System (LMS), with 100% availability, provides the core of the digital teaching and learning infrastructure. A significant accomplishment in 2022 was the stability of the clickUP environment, with an average performance index of 92% and 100% availability. This trend continued in 2023 with 99,99% availability and an average performance index of 93%. The graph below shows Google Analytics data indicating the active number of users per week in 2023.

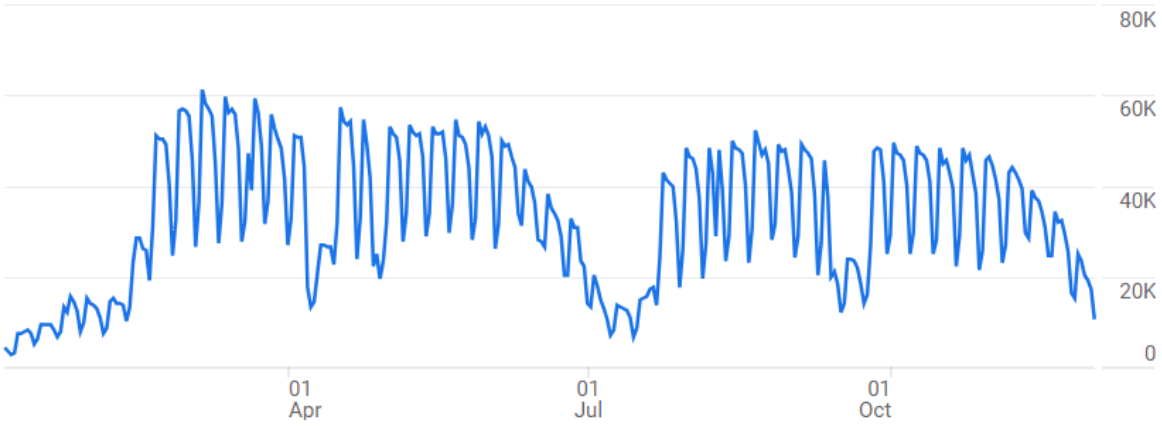


Figure 15: clickUP Active users 2023

The table and graph below show Impact data indicating instructors' application of tool groups in clickUP original: 2022-2023.

Tool Group	Adoption 2022	Adoption 2023
Assessments	62.8%	62.5%
Collaboration	72.8%	67.8%
Communication	84.4%	84.1%
Content	81.3%	81.4%
Course management	66.4%	66.8%
Ultra base navigation	91.1%	90.5%

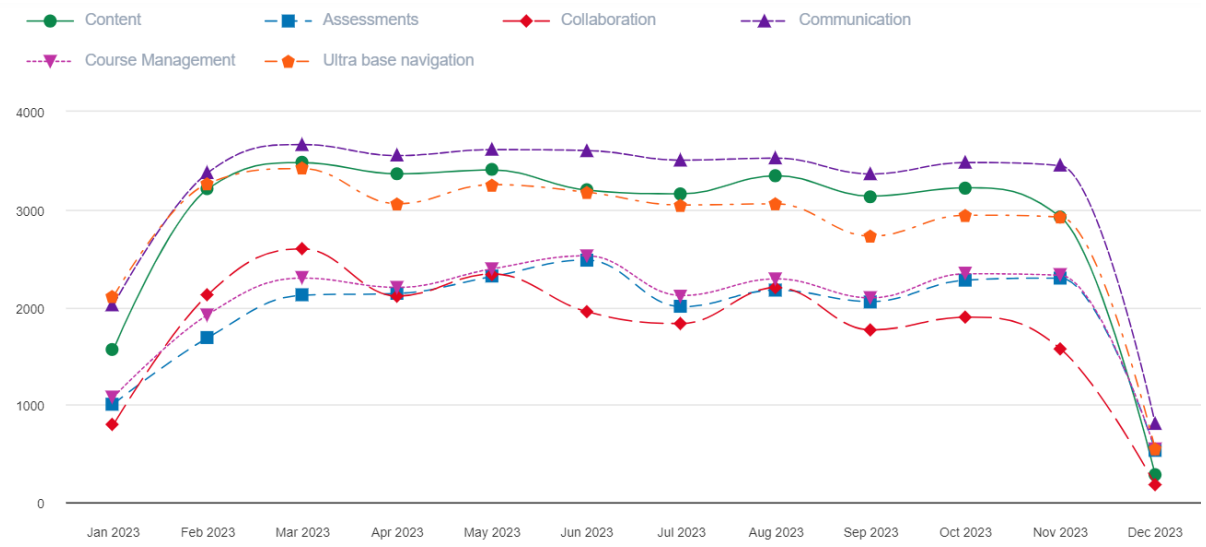


Figure 16: The chart reflects the percentage of active instructors who used the selected tools per month.

Students and instructors accessed clickUP in 2023 from numerous countries as indicated by the following figure:

2.3.1.1 Blackboard Ultra Courses

In 2023, we embarked on a journey to implement the first phase of clickUP Ultra for a select number of courses during the second semester of 2023. The latest version of Blackboard Learn, Blackboard Ultra, offers a modern and user-friendly interface for an enhanced educational experience. Blackboard

Ultra is an innovative learning management system that streamlines course delivery, collaboration, and engagement. The new clickUP Ultra aligns with contemporary universal design principles, and its pedagogical philosophy provides a consistent new course layout. It features simplified navigation, a mobile-friendly experience, and intuitive workflows. Simultaneously, it facilitates data-driven learning analytics to keep students engaged and on track for success. It incorporates new tools and features such as streamlined grading, a new grade book, and seamless integration with third-party tools.

This large project was broken down into five workstreams to ensure successful implementation:

1. **Communication:**

   Communication for the clickUP Ultra project commenced in early February, through meetings with Deputy Deans for Teaching and Learning to introduce and garner support for project objectives. Subsequent announcements, disseminated via the Alerts course, reached clickUP instructors:
   • In April, the project was announced.
   • May marked the announcement of the first phase implementation.
   • July communicated the initiation of the first phase at the start of the second semester.

   A steering committee, inclusive of representatives from all faculties, EI, DIA, and the student council, was formed. During the inaugural meeting on June 6th, the committee unanimously decided to execute the implementation in phased stages, with the second phase concentrating on all first-year modules in 2024.

   The second phase officially launched on September 1st, attended by numerous HoDs. Anthology provided an overview, and the second-phase lecturers were introduced online on

September 7th, featuring participation from Anthology. Personalized emails were sent to HoDs and first-year lecturers, including a video showcasing media from the first-phase training and clips from one-on-one interviews with first-phase lecturers, created by Andre du Plessis of Creative Studios.

In October, a campus-wide email from Prof. Ferris to the UP community heralded the second phase, focusing on first-year modules.

The communication team started collaborating with DIA in October to strategies 2024 marketing plans, outlining future initiatives such as circulating two articles in early January. These articles, titled "Move to Ultra" and "Celebratory Article: 25 Years of LMS Use at UP," aim to spotlight and celebrate the project's progress and the enduring use of Learning Management Systems at the University of Pretoria.

2. **Training:**

The training team spent time mapping the content of the clickUP Ultra courses, theory to present, and game design for the clickUP Ultra Overview course. Five workshops were developed for lecturers, namely clickUP Ultra Overview, Content, Engagement, Assessment, and finally Grading & Gradebook. This involved the creation of the courses in clickUP Ultra, PowerPoints, and a handout for the activities. These courses were quality assured by the IDs, and Mrs Lotriet before it was presented to the first-phase lecturers and Education Consultants in the week of 29 May-2 June. Feedback from these lecturers indicated that they did not need the printed handouts, and from there onwards, the instructions for the activities were only provided in the online clickUP Ultra workshop course.

Seven training cycles were scheduled to accommodate the more than 500 first-year lecturers who needed to be trained before the academic year started in 2024. Five cycles were presented in 2023. Each of these cycles consisted of five workshops, each presented in two computer laboratories at a time.

Figure 17: Academic staff attending training

An extra course aimed at academic administrators was developed between July and September. The course was presented on 31 October.

3. First-phase implementation

The first phase of the clickUP Ultra implementation took place during the second semester. Modules with sufficient complexity and lecturers willing to participate were identified in each Faculty as possible candidates. The final list of participating lecturers was compiled in collaboration with the Deputy Deans: Teaching and Learning.

Figure 18: Lecturers and EI staff who participated in the first phase clickUP Ultra training week

The project was introduced to these lecturers in various contact meetings from 22-29 March, and one online meeting was held with those who could not join any of the others on the 4th of April. Recordings of this meeting were sent to the lecturers who could not attend any of the meetings.

Eight of the faculties were represented through thirteen modules. After lecturers attended the training week, they received a sandpit module to rebuild their course, before copying it to their official clickUP modules.

Thirteen lecturers and 4150 students participated in the first phase of implementation. Monthly meetings were held with the lecturers to stay in contact and keep them informed about new changes in the system. Most of the lecturers did not experience problems in facilitating their modules. They indicated that they found the new system easier to use, saving them time with various functions. However, the INF112 module, which had 1 345 students, reported problems related to the large class size. These problems were communicated to Anthology to inform them of the improvement of the system.

Feedback from the students indicated that they found the system easy to use and needed help with the functionalities. The only problem experienced was with the mobile app, which was fixed within a month of reporting.

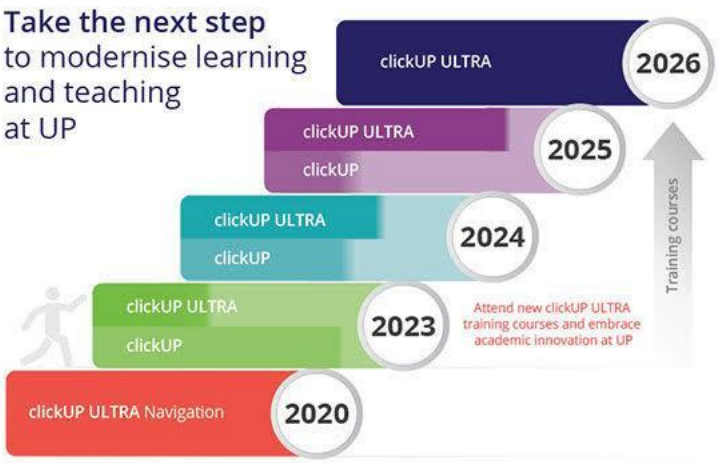
4. Help sites

Three support resources were created to provide 24/7/365 support to lecturers and students using clickUP Ultra. All these resources were completed in May, just before the first-phase training sessions. Continual maintenance is necessary to keep these resources updated with the monthly system updates. The lecturer's website was developed in the newly acquired Doc360, and the student help site was developed in Articulate Rise. The clickUP Ultra lecturer help site attracted views from across the globe, with the majority from South Africa. The site recorded 7 962 views, 3 276 reads, 53 likes and 10 dislikes from July to December. These dislikes will be used to improve the articles indicated as problematic.

The clickUP Ultra Student Introduction module contains practice activities and information to allow students to familiarise themselves with the new environment. Mr Slabbert enrolled 2 997 first-phase students on this course. 746 students have accessed it, and 129 spent more than 20 minutes in the course.

5. Integration

In March, successful integrations with Cirrus, Turnitin, and PS were achieved. However, by August, issues arose with integrating one first-phase module with Cengage, prompting awareness and efforts from Cengage to find a solution. The company successfully resolved these problems. Regular ideas were submitted to improve the system, including a request for QTI integration for the seamless transfer of questions between Ultra and Cirrus, enhancement of the group functionality, content collection and other features.



The University utilises Blackboard Mobile to provide students with greater access to learning materials across various devices. The clickUP app lets students view content and engage in courses using mobile devices. The app is compatible with iOS and Android devices, enabling students to access content, participate in discussions, join virtual Blackboard Collaborate classes, and view their grades through the Blackboard app. Before 2022, clickUP users had access to two separate mobile apps: the Blackboard Student App and the Blackboard Instructor App. However, in 2022, these two apps were combined, offering a user experience akin to accessing clickUP from a computer. The interface also adjusts according to the user's role within a course. One advantage for instructors is the capability to manage their courses through the updated app. In 2023, several other modifications allowed students a similar user experience via the mobile app. The longitudinal undergraduate student average mobile activity data show interesting data that may indicate that students were more engaged on their mobile devices in 2023. It may also be an outcome of the improved user experience.

Term	Avg Mobile Course Accesses	Avg Mobile Course Access Minutes	Avg Minutes per Mobile Course Access	Avg Interactions per Mobile Course Access	Avg Mobile Assessment Accesses	Avg Mobile Interactions	Avg Mobile Content Accesses
2018	31.5	259.2	8.2	2.8	.5	87.6	24.5
2019	43.0	367.5	8.6	3.0	.8	129.8	27.7
2020	41.0	332.4	8.1	3.3	1.6	136.2	27.5
2021	13.9	204.8	14.8	5.1	1.3	71.2	18.3
2022	14.5	245.3	16.9	6.1	1.2	89.1	23.6
2023	15.7	246.7	15.7	6.0	1.0	93.6	24.3

The clickUP usage data for 2023 shows a small increase in active courses and in percentage UG modules using clickUP from the previous year. There were 6% fewer course accesses and less than 23% course interactions in 2022. Additionally, there was a decline in Blackboard Collaborate usage (virtual classes) in the second semester of 2022 and in 2023. Undergraduate students' activity increased slightly from 2022, to 2023, as illustrated in the following graphs:

2.3.2 Technology resources to enhance students' readiness for class

The advantages of e-books include customisability, hyperlinks to other resources, the ability to search for keywords, using bookmarks, easy access to a built-in dictionary, copy-and-paste functionality, and the option to have the device read the text aloud. The University uses the VitalSource Bookshelf platform to give students instant access to e-textbooks on any device - both online and offline. These e-textbooks integrate into clickUP and track students' interactions with them, facilitating user information and student engagement.

Table 11: Technology available to support students' preparedness for class

PREPARE before class	Technology
Textbook	Pearson, Cengage, McGraw Hill, Wiley, Macmillan
e-books	VitalSource platform (all publishers)
OER	OpenStax
Videos	Blackboard Class recordings, Narrated PowerPoints, YouTube, Khan
Courseware	Connect (McGraw-Hill), MindTap (Cengage), MyLab (Pearson)
Assessment	H5P in-video assessment, Blackboard test/assignment/quiz

Students' preparedness for lectures can be determined or assessed in various ways. Formative assessments provide valuable information to lecturers that they should modify their teaching of the content to improve student learning. Technology enables us to assess student preparedness in many powerful ways. Students can complete a Blackboard assessment before class, while lecturers can now embed interactive quizzes into videos using H5P software and track students' results in the grade centre. These features are directly available on Blackboard.

Publisher courseware is integrated into clickUP: Publisher courseware utilises adaptive learning systems that tailor the learning experience according to each student's unique needs, determined by their responses to questions, tasks, and experiences. These courseware environments also offer electronic assignments that facilitate formative assessments, aiding students throughout their

learning journey. Blackboard has broadened its content delivery services via collaborations with multiple publishing companies, with many academic departments benefiting from these international publisher partnerships. Leading the way, publishers devised courseware and customised adaptive learning platforms. In 2023, some publishers who supported instructors and granted students access to their content on clickUP included McGraw-Hill Connect and Create, Pearson's MyLab/Mastering, WebAssign/Cengage/Mindlinks, and WileyPlus. The use of the publisher companies' content is visible in the figure below, which displays the average content item interactions per type in 2023.

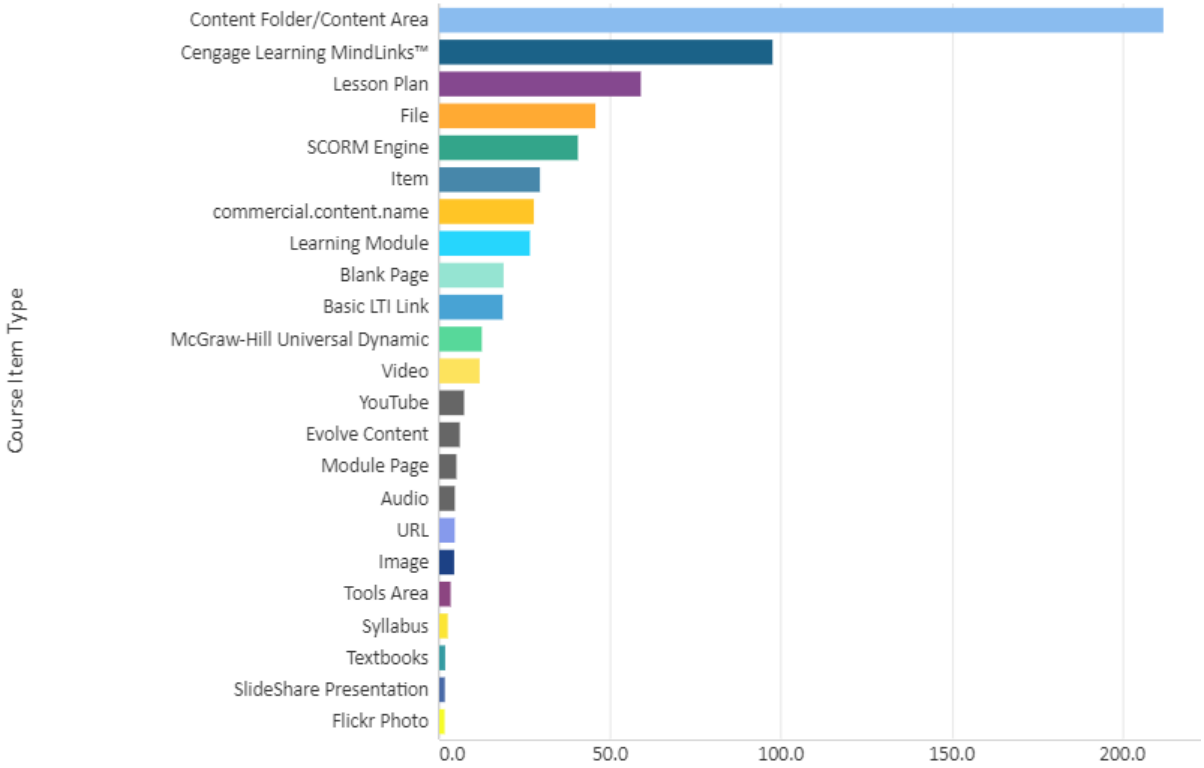


Figure 19: Average Content Item Type interactions: Undergraduate courses

H5P (In-video assessment): The in-video assessment tool was introduced in 2020 to enhance the ability to conduct continuous assessments while watching videos during students' pre-class preparation. In 2023, new features and improvements were implemented, such as Flashcards in random order and numerous new content types and improvements, including new branching scenarios. Training sessions were offered as part of the e-education group's professional development portfolio. An online course on in-video assessment was also made available to assist lecturers in using the software. Since its integration into clickUP in 2020, the in-video assessment tool has been activated in 3,762 courses.

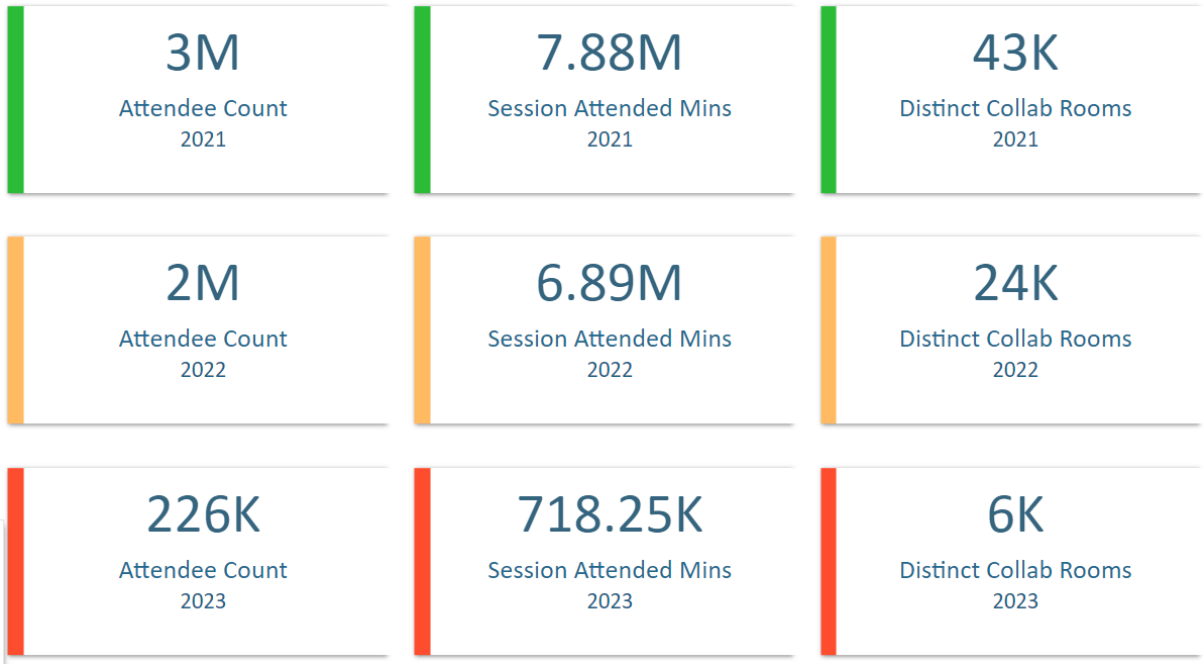
2.3.3 The technology available to support students' engagement in class

To encourage active learning, even in large classes, a student response system (Clicker app) captures individual student responses during class, automatically logging the results (grades) in the clickUP Grade Centre. The Point Solutions Mobile Clicker app enables students to answer multiple-choice questions. It can be employed in any virtual online session (e.g., Class Collaborate), accessible to students from any location. The mobile app's usage supplies instructors with data on class attendance (with integrated geolocation), student engagement, and student comprehension (formative assessment). Moreover, a summary of student responses is available and displayed on a web-enabled device while polling is active.

Table 12: Technology available to support students' engagement in class

ENGAGE in class	Technology
Live streaming platform	Class Collaborate
Student response system	PointSolutions mobile clicker solution

It is now possible for remote students to participate fully in class via live-streaming technologies such as Class Collaborate, previously known as Blackboard Collaborate. Class Collaborate is a real-time video conferencing tool that lets you add files, share applications, and interact with a virtual whiteboard, chats, and polls. The online video platform integrated into clickUP opens in any browser, so students do not have to install software to join a session. Students can use their Blackboard app or any browser on their mobile phones to join a Class Collaborate session. Class Collaborate will continue to support students and staff in 2023. The value of Class Collaborate in supporting teaching and learning during the COVID-19 pandemic is visible in the positive feedback received from students in course lecture feedback and the usage data in 2023. In 2023, 52,707 sessions were scheduled, and 14,120 recordings were made, and the total attended minutes was more than 23 million. The online virtual synchronous Blackboard Collaborate sessions, therefore, decreased. The following infographic shows Blackboard Class Collaborate usage from 2021 to 2023. while the 2023 usage data show a significant decrease since the COVID-19 Pandemic, the usage in 2023 at the undergraduate course level is much higher than before the Pandemic:



2.3.4 Technology resources to enhance students' consolidation of knowledge after class

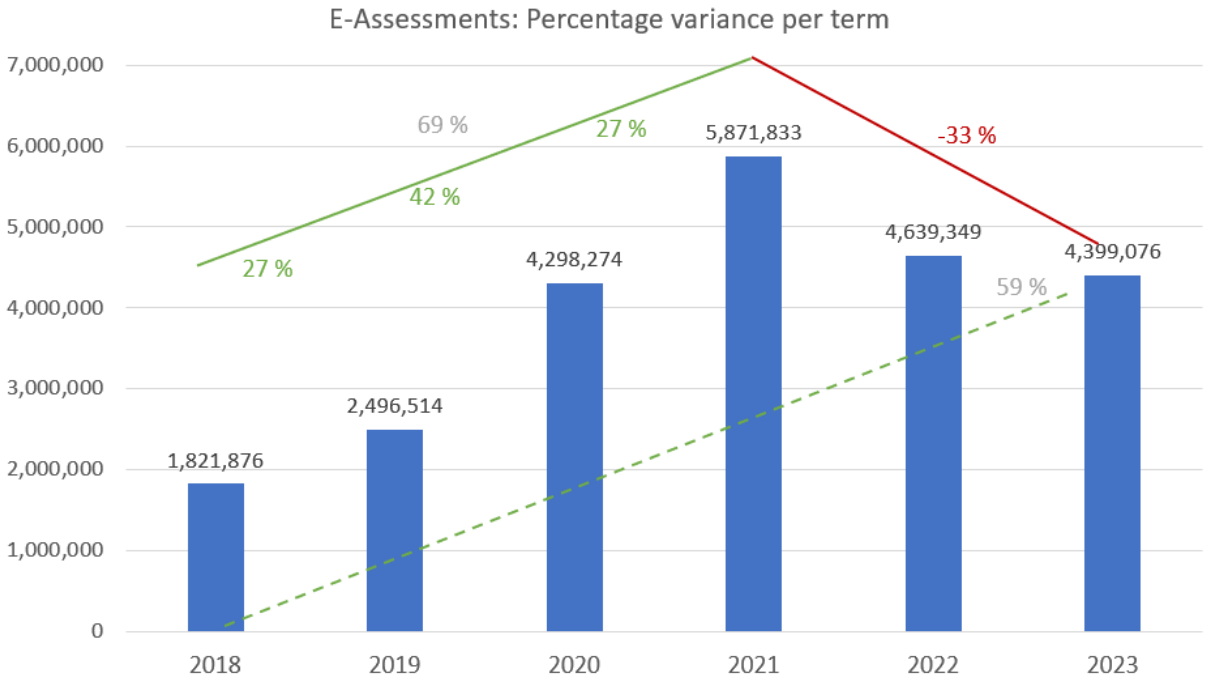
Creating opportunities for students to reflect, integrate, and restructure their knowledge after class is critical. This could include preparing for a summative assessment, working on an assignment, watching a class recording and reflecting on it, drawing a concept map, making a summary, working on a project, or applying knowledge to solve an integrated complex problem. Using different assessment approaches and strategies to assess the various learning outcomes during a particular course of study

is always important – not only during challenging times or pending emergencies. A balance of formative and summative assessments over time, collected from multiple sources, provides a more authentic, reliable, and valid picture of the student's learning.

Table 13: Technology available to support students' consolidation of knowledge after class

CONSOLIDATE after class	**Technology**
Assessment platforms	Blackboard assessment tools, Gradescope, Respondus, Numbas, Cirrus Assessment (QuestUP 2)
Tutoring platforms	Chegg or similar platform**
Plagiarism detection software	Turnitin
Online proctoring	Proctorio
ePortfolios	Blackboard portfolio tool

A range of electronic assessment options facilitates regular evaluation and feedback for both formative and summative assessments. The University employs several systems, including QuestUP, clickUP, Turnitin, e-publishers' assignment tools, and Numbas. In 2022, the Cirrus Assessment system replaced QuestionMark Perception as the University's primary summative objective assessment system, known as QuestUP within the institution. It supports secure objective evaluation by generating reusable question banks and automating grading. Instructors also utilise numerous tools within clickUP to administer various assessment formats for grading diverse online activities, such as discussions, blogs, wikis, and journals, as well as managing assignment submissions and grading and setting objective assessment items. Turnitin confirms the originality of a student's work by identifying similarities between assignments and other documents. Its resubmission feature allows students to improve their academic writing through similarity checks and reports, learning to paraphrase, summarise, and cite sources as part of an academic argument. Publishers of various textbooks, like Cengage, McGraw Hill, and WileyPlus, offer electronic assignments that facilitate formative assessments, aiding students throughout their learning journey. The extended lockdown period significantly impacted e-assessment utilisation, leading to a considerable shift in online assessments towards the clickUP system. The figure below illustrates the number of e-assessments undertaken at the University of Pretoria on systems that EI takes responsibility for, and the percentage variance per term between 2018 and 2023.



The data below illustrates a 23% overall decrease in the use of clickUP for assessment, particularly in clickUP tests, assignments, wikis, Turnitin assignments, and McGraw Hill assignments in 2022. This outcome is expected, as numerous instructors reverted to conventionally written assessments on campus after the pandemic. Nevertheless, some educators persisted in leveraging the advantages of online assessments by organising their clickUP evaluations in computer labs, supplemented with on-site proctoring. The statistics from the previous five years exhibit the influence of transitioning to the clickUP system for assessment purposes.

Table 14: Online assessments graded attempts in clickUP and integrated systems 2018-2023

Test type	2018	2019	2020	2021	2022	2023
clickUP tests**	1,020,844	1,199,682	2,299,186	3,086,596	2,254,583	2,147,593
clickUP assignments	155,750	185,262	703,114	870,308	623,989	537,060
Graded discussions	2,257	8,792	39,840	73,477	77,569	76,700
Graded wikis	2,404	2,569	3,961	4,019	3,292	3,337
Graded blogs	2,673	2,995	2,424	6,224	6,486	5,765
Graded journals	2,258	4,159	6,057	8,448	11,190	16,073
Turnitin assignments	200,267	220,478	463,995	536,381	442,626	340,199
McGraw Hill assignments	74,274	308,046	323,531	436,762	285,201	283,962
SCORM	325	575	483	300	1,029	911
Cengage	179,261	384,014	208,150	367,871	387,502	543,138
LTI	56,297	38,233	64,808	126,385	154,545	351,857

Self and peer assessments	625	102	808	1,783	2,116	2,255
TOTAL	**1,697,235**	**2,354,907**	**4,116,357**	**5,518,554**	**4 250 128**	**4 308 850**

Departments at the Faculties of Health and Veterinary Sciences use the capabilities of MS PowerPoint to administer assessments in computer laboratories. In contrast, some departments in EBIT use the specialised functionalities that Numbas affords to meet their assessment needs.

Table 15: NUMBAS assessments taken by students

ASSESSMENT SYSTEM	2018	2019	2020	2021	2022	2023
NUMBAS	*	*	120 000	194224	112679	24,226

Table 16: PowerPoint assessments are taken by students

CAMPUS	2018	2019	2020	2021	2022	2023
Prinshof	2 883	2 510	3 059	3 815	5 692	6332
Onderstepoort	6	114	0	0	0	95
TOTAL	**2 889**	**2 624**	**3 059**	**3 815**	**5 692**	**6 427**

Proctorio: Lecturers are encouraged to create assignments that make cheating harder using more authentic assessments, such as case studies and original application questions. However, many ways exist to enhance online assessments, including proctoring systems. The University uses Turnitin and Proctorio to discourage plagiarism and cheating in an online environment. Proctorio integrates with both clickUP tests and Cirrus. It uses advanced machine learning and facial detection technology to deliver accurate and reliable exam proctoring. The AI and machine learning-based remote proctoring solution works through a Chrome browser extension. It can provide features such as video/audio/screen recording, ID verification, and lock-down options with the ability to prevent content distribution. However, Proctorio was only used in a few courses in 2023.

Gradescope: Classifying and grading tests and papers are time-consuming and require concentration and attention to detail. In addition to all the above-mentioned online tools, the University has acquired Gradescope to assist lecturers with this issue. Gradescope is a feedback and assessment tool that dramatically reduces the time and effort associated with grading exams, homework, and other assignments. This tool helps lecturers to administer and use AI to grade all online or in-class assessments. Gradescope's AI-assisted grading allows instructors to automatically group similar answers and grade all the answers in each group simultaneously. Gradescope supports the evaluation of Computer Science, physics, mathematics, chemistry, biology, engineering, and economics assessments. It further enables instructors and graders to give better and more timely feedback.

E-rater: Turnitin provides automated assistance with marking and developing students' writing proficiency. Another app, ePortfolios, allows students to create a library collection of single, large assignment files. Lastly, the Blackboard portfolio tool allows students to gather artefacts submitted in assignments across modules into a central, website-like environment. This tool allows students to share their portfolios with lecturers and download the final product to keep as evidence of their development during their studies.

Cirrus Assessment (QuestUP): The University continued to use the Cirrus Assessment cloud-based, online Computer-Based Testing (CBT) system in 2023. This system enables students to write a test on any hardware that possesses an internet connection and browser. The system operates across any browser-enabled device, which opens the possibility of writing CBT tests on student laptops in an IT lab or lecture hall. Laptops could be secured with a lock-down browser to disable students' ability to move between screens while writing tests. It also allows students to write assessments off-campus.

D Scheepers and E Mostert met with Prof Liandi van den Berg and three other staff members from Northwest University on 2 February regarding UP's implementation of Cirrus and the UP assessment policies and protocols. Barry Lauth from ITS joined later to discuss integration of Cirrus with other UP systems. It's worth highlighting that UP had a more robust plan for support and change management to facilitate the system's use, in contrast to the resources available at NWU during that period.

The CBT team organised and facilitated an Institutional Brown Bag Lunch event, "QuestUP: The voice of our lecturers" 1st. The purpose was to promote the system to a broader UP audience. Three lecturers shared their unique approaches with the 38 attendees, showcasing the system's capabilities through their experiences.

The following technical aspects received attention during 2023:

- UP covered 50% of the development costs for two highly requested features by our lecturers. These features, offering timed feedback immediately after a student completes an assessment and providing the option to set different navigation choices for assessment segments, were successfully implemented in April 2023 and significantly reduced the workload on setting review sessions with students.
- In response to a lecturer's request to use the programming question type in the system, Cirrus invested 300 hours in enhancing this feature. Moreover, EI put in place an experimental execution server to assess whether this question type adequately meets the lecturer's requirements. If deemed suitable, UP will need to implement a permanent execution server to facilitate summative assessments of this type.
- The challenge of South African load shedding brought to light a logic issue in the program. This flaw prevented students from continuing their assessments once the system flagged a connection problem to the invigilator. Collaborative efforts between the CBT team and Cirrus Assessment through extensive testing were instrumental in identifying the cause of this issue.
- The Safe Exam Browser functionality was tested with the support of the SCS staff to improve the security of assessments written from off-campus. It was successfully used in various off-campus assessments during the year.
- Two incidents occured when examinations were impacted by the unavailability of QuestUP for a few minutes.
    - On October 26, an examination at Health Sciences encountered a 13-minute downtime, leading to the rescheduling of the exam in the afternoon. According to the post-mortem report from the company, the EU (Non-Premium) experienced a 7-minute outage, disrupting candidates taking exams. The Cirrus platform automatically recovered, fully restoring service 6 minutes later. The root cause was identified as the mishandling of large waves of load in succession, leading to an overload of the two remaining API containers. The autoscaling system recovered automatically after the outage, restoring the Cirrus platform's service.
    - The second incident occurred on December 5, affecting the supplementary examination for 35 students in EQM 400. The system encountered a 10-minute unavailability, resulting in the unintended randomization of questions within sections and instances of missing images. To address the situation, the lab administrator paused the exam for approximately 35 minutes to allow lecturers to decide on the

best course of action. Subsequently, the exam time was extended, enabling all students to complete the examination successfully.

Problems with the generator at the Arnold Theiler Building at Onderstepoort severely impacted the assessments taken at that campus. One proposed solution was a Bring Your Own Device (BYOD) approach where students could write their assessments on their own devices in the multidisciplinary laboratory or classrooms. The BVetNurs students (less than 50) were identified as a trial group for this solution. However, students raised concerns about device availability, battery life, and discomfort with installing software on personal devices. In response, it was decided not to proceed with this solution.

The planned pilot with BYOD with QuestUP in lecture halls during the second semester was deferred based on the fact that most of the assessments are currently conducted in clickUP, SCS in ITS are investigating other solutions for writing assessments with a BYOD approach in lecturer halls, as well as the reaction from the BVetNurs students at Onderstepoort.

After two years of implementation, QuestUP was adopted by 183 lecturers throughout the institution, with varying levels of usage. This is a 74% increase from 2022. However, the number of autonomous users has declined to only 11%, and more than half of lecturers (56%) using the system require some support from the CBT team to set their assessments. A third of lecturers (33%) are fully dependent on the CBT team to set their assessments in QuestUP.

Table 17: QuestUP (Cirrus) adoption

Level of user autonomy	**2022 Nr of users**	**2023 Nr of users**	**2023 Percentage of total QuestUP users**	**Year-on-year growth**
Autonomous	*41*	*20*	*11%*	*-51%*
Semi-autonomous	*32*	*103*	*56%*	*222%*
EI Dependent	*32*	*60*	*33%*	*88%*
Total	***105***	***183***	***100%***	***74%***

The number of assessments taken by students within the QuestUP system in 2023 is illustrated below, with a comparison to the previous system, QuestionMark Perception, used until the end of 2021. There has been a steady increase of the use of the QuestUP system within Veterinary Science, Health Sciences and Education faculties. The large decline at the Hatfield campus is due to lecturers moving their assessments to textbook content providers, resigning and retiring of lecturers who used the system and the AIM modules that moved to use clickUP for assessments after 2020.

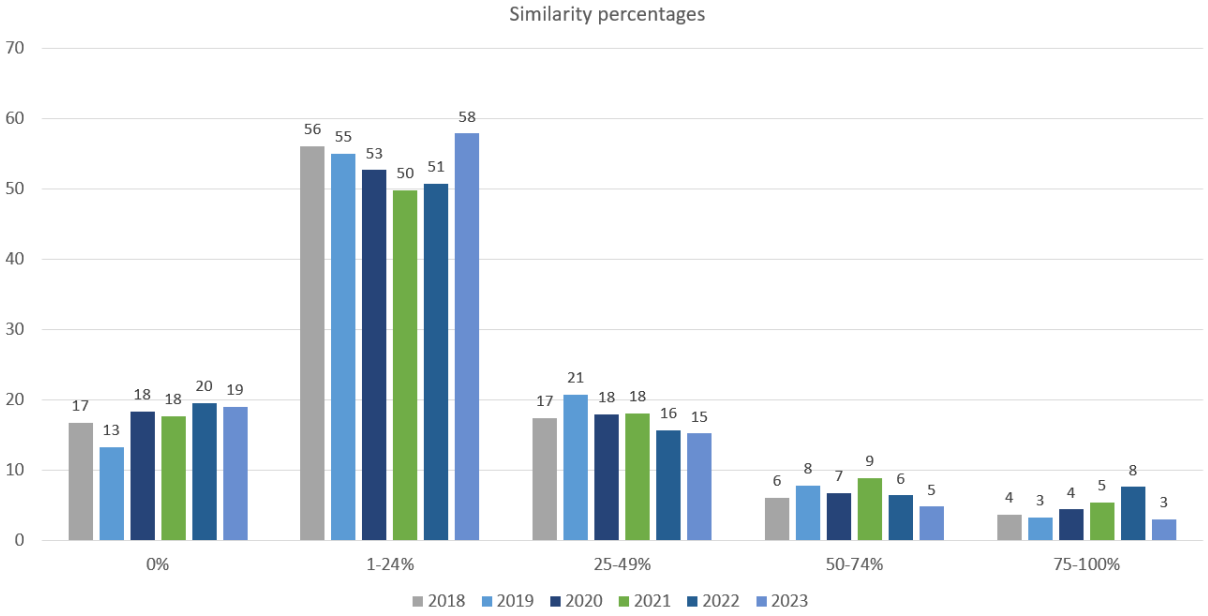
Table 18: QuestUP assessments completed by students

CAMPUS	**2018**	**2019**	**2020***	**2021***	**2022**	**2023**
	QuestionMark Perception				**Cirrus**	**Cirrus**
Hatfield CBT labs	11 900	25 190	296	0	14 822	3 535

Hatfield IT Labs	25 585	24 288	38	0	0	0
Mamelodi	3 276	4 910	0	0	0	0
Prinshof	45241	45 309	20 089	17 349	15 401	19 322
Onderstepoort	19 707	20 931	3 837	4 334	17 578	18 630
Groenkloof	16 043	18 355	1 353	0	1 264	7 080
TOTAL	**121 752**	**138 983**	**25 613**	**21 683**	**49 065**	**48 557**

**Covid Lockdowns- few assessments on campus*

Turnitin: Turnitin is used to verify the originality of a student's work by detecting the similarity of assignments to other documents. The resubmission function in Turnitin allows students to develop their academic writing through the similarity check and report as they learn how to paraphrase, summarise, and cite documents as part of an academic argument. Turnitin (a similarity and plagiarism detection service) is also integrated into and available in clickUP to check students' assignments for inappropriate copying from each other or other online resources. The number of papers submitted to Turnitin has been increasing annually. Although Turnitin's usage rose in 2016 in response to the #feesmustfall campus disruptions, it would not have been unexpected if it decreased in 2017. Surprisingly, however, Turnitin usage again increased in 2018, slightly decreased in 2019, but significantly increased in 2020 and 2021 due to the impact of the COVID pandemic. In 2008, nearly half of the submitted papers had similarity scores of 25% or higher, indicating the presence of plagiarism. In response, the UP initiated campaigns and training to increase the originality of assessment papers. More UP lecturers use Turnitin to screen, mark, and provide feedback on student assignments. The figure below shows the similarity reports from 2018 to 2023 and how most papers have lower similarities with a slight decrease in high similarities. However, there is an increase in similarity reports between 1-24%. It may be related to using the beta version of the Turnitin Artificial Intelligence detection function. The AI detection function was made available to all institutions in 2023. The controversial function roadmap will impact further use at UP.



Lecturers are increasingly marking and providing feedback using Turnitin assignments, as indicated by the feedback provided in 2023, as shown in the following table.

Table 19: Turnitin feedback from 2018 – 2023

	Submissions with feedback	Scored with rubrics	Instructor feedback	ETS	PeerMark
Total 2018	863,347	22,611	3,985,745	1,391,143	14,776
Total 2019	103,417	21,945	2,509,083	2,065,980	16,130
Total 2020	257,802	12,585	1,167,047	2,748,189	463,955
Total 2021	323,550	64,848	2,081,270	2,932,832	272,299
Total 2022	273,826	67,709	4,578,459	2,951,841	11,661
Total 2023	203,937	61,916	3,812,054	2,761,213	11,552

Instructor feedback (column 3) consists of summary text comments, voice comments, QuickMarks, Blackboard comments, in-line text comments, strikethrough text, ETS rater, and grading form marks. All feedback options and rubrics are seamlessly integrated and provide more in-depth feedback in less time if used together. The ETS® e-rater® Grammar Check Technology that forms part of the Turnitin Studio is increasingly activated in assignment settings. It automatically checks submissions of an assignment for grammar, usage, mechanics, style, and spelling errors. Students can use in-depth feedback and integrated online tutorials to improve their English writing. A self-help module for post-graduate students was created to allow them to use the Turnitin feature to improve their writing and to submit documents for verification before final submission. The course originated from collaborating with the library to improve students' writing skills. The course had more than 21,000 submissions in 2023.

The training team devoted considerable effort to creating content for the upcoming Turnitin upgrades, set to launch in January 2023. The implementation roadmap for the new Turnitin LTI is displayed in the figure below. Dr Untiedt produced a video that highlights the distinctions and outlines the procedure for generating a new Turnitin assignment using the LTI. Although this video was shared with lecturers via the Alerts course, further communication will be required in 2023. Moreover, a new Graduate Research Support Module was created for 2024 to incorporate the appropriate Turnitin links, enabling postgraduate students and lecturers to continue utilising this platform for the preparation of their theses and articles.

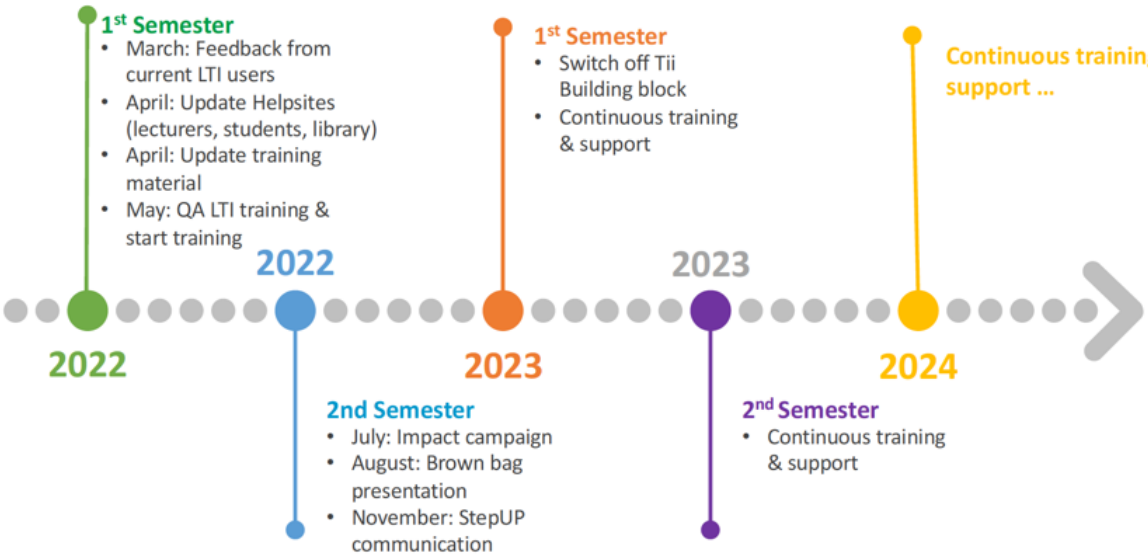


Figure 20: Roadmap / Implementation: Turnitin LTI

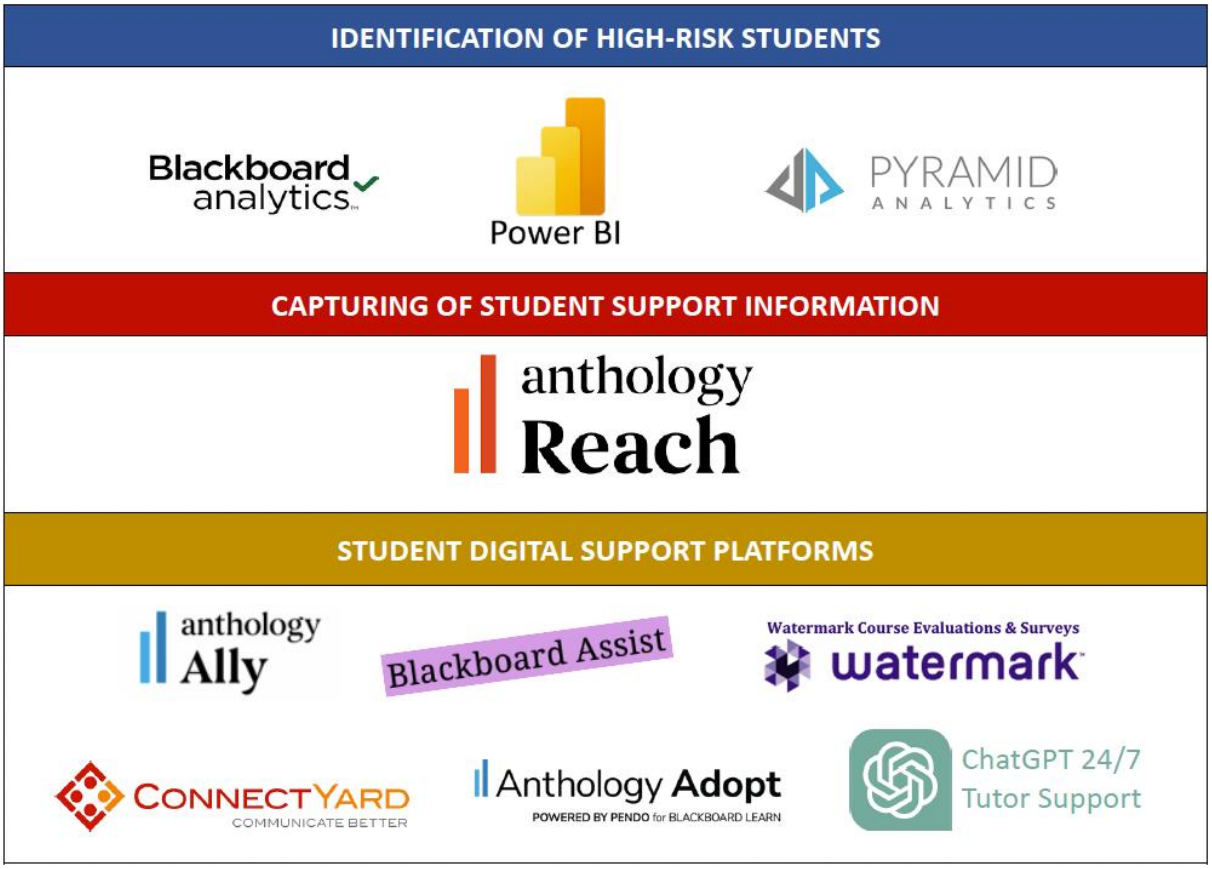
2.4 Learner Analytics and the Digital Student Success Infrastructure

Emerging technologies and artificial intelligence (AI) offer numerous possibilities for tracking and improving student success. The University of Pretoria's student success-related technologies encompass identification, information, and support. Further details on these categories can be found in the table below.

Table 20: UP's digital student success ecosystem

Identification of high-risk students and courses	Student support information	Student Support & Communication
clickUP Risk analysis	Support information hubs	Enhanced accessibility
Analytics course reports	Dashboards and nudges	Support information hubs
Survey platforms	Reports	Contextual clickUP support
	Case management systems	Communication tools

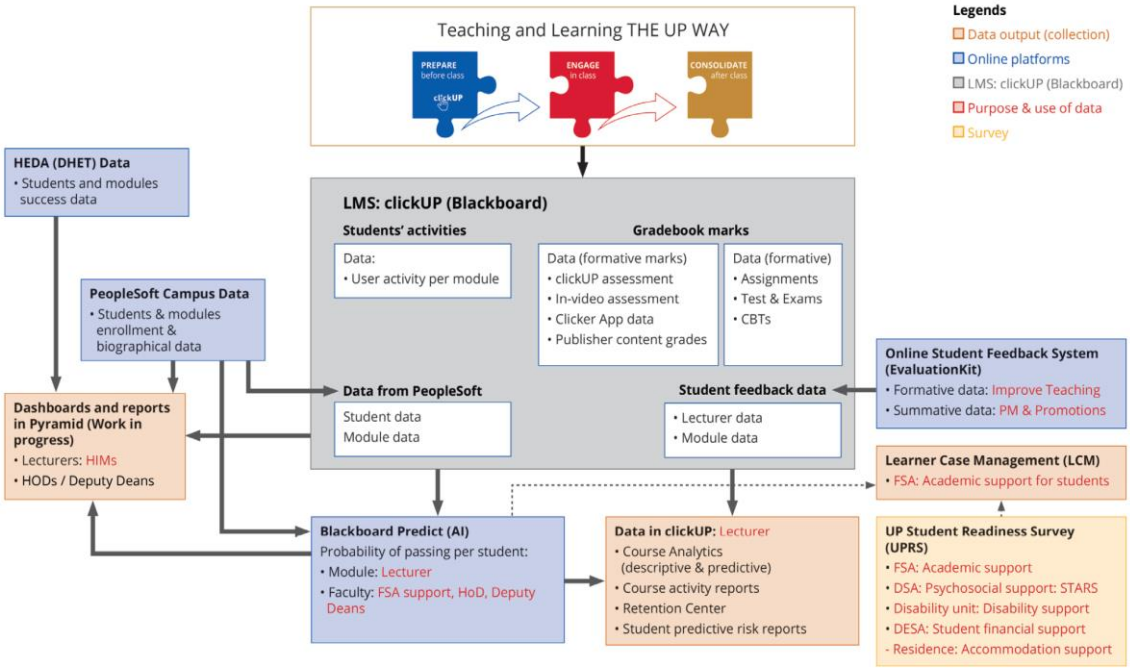
More specifically, UP's digital student success ecosystem consists of the following:



2.4.1.1 Identification of high-risk students and courses

The significance of descriptive and predictive data access is underscored by the University of Pretoria's capability to leverage real-time data regarding students' teaching and learning activities within the LMS. UP can tailor student support on a large scale by incorporating descriptive and predictive data

systems into the teaching and learning ecosystem. The University employs Pyramid and Tableau Analytics software packages to gather data and create accessible student success dashboards for management and lecturers. Students can access various data reports in clickUP and configure notifications to stay informed about events occurring within clickUP. The data management and flow are illustrated in the following figure.



Access to LMS student engagement data is crucial for backing institutional student success initiatives. Efficient data usage enables the University to employ learning analytics' early alerts to proactively address potential issues, effectively support students, and improve student success rates. An at-risk student identification system enables the prompt detection and identification of students at risk of failure, leading to timely interventions and ensuring student success. Blackboard Learn (marketed as clickUP) has increasingly been able to collect student data - encompassing both marks and clickstream data - and promote student success at both module and individual levels. Other soft

Identification of high-risk students and courses	UP platforms
Predictive software	Blackboard LMS Analytics & Tableau's prediction algorithms
Analytics software	Pyramid & Microsoft Power BI
Survey platforms	Watermark Course Evaluations & Surveys (Student feedback on teaching) Qualtrics (UP Readiness Survey)

Qualtrics: The UP Readiness Survey uses Qualtrics to measure first-time first-year students' readiness for university education. Readiness for university education can broadly be defined as a student's level of preparedness (financial, social, and academic engagement) to succeed at a higher education institution. The UP Readiness Survey acts as an early warning system so students can be directed proactively to the mentoring and advising programmes. First-time first-year students self-report their

academic readiness in various categories, from family support to study skills to transport and accommodation. Using the data to make referrals to the mentorship programme and FSAs has proven effective in student retention, experience, and success. FSAs proactively use the information received via Tableau Analytics to invite students to targeted interventions.

Watermark Course Evaluations & Surveys: Student feedback is essential to better classroom dynamics. Lecturers receive or even elicit quick, informal feedback or hold discussions with class representatives. Course evaluations are part of the formal requirements that allow students to give feedback on a module. The information generated specifically addresses teaching and learning issues. While the information obtained from student surveys can immediately assist lecturers in improving their curriculum design and delivery, such data are also crucial in compiling departmental and faculty reports on teaching and learning matters.

Pyramid: A few significant data enhancements were implemented in 2023. Through consultation with Deputy Deans, academic staff employment level was integrated into the data models to distinguish between senior and junior staff. Other enhancements to the existing perspectives include student GPA, appeal status data and ensuring students' e-mail accounts align with what is used in clickUP. The latest version of Pyramid, which includes new features such as AI, was installed in the second semester.

External institutional stakeholders requested data reports that also contributed to changes. The institutional audit of DESA student enrolment and de-registration processes resulted in changes to student activity data recorded to include the last date of activity in a course. A few heads of residences requested the development of a dashboard to provide them with an overview of students' academic progress.

The consultation and data enhancements improved the value of numerous reports or dashboards. They allowed for the development of reports to indicate the top active academic staff users per Faculty or providing student activity reports requested by lecturers or Deputy Deans. Numerous reports assisted stakeholders in making data-driven decisions. A detailed Tutor activity report impacted the planning for tutor training in 2024, while course reports assisted the Instructional Designers in selecting possible modules for the first phase of the new clickUP Ultra implementation. The Office of Employment Equity and B-BBEE requests data reports about staff development to include details for reporting purposes that may impact the University rating. Faculties also requested reports to support staff workload, including the number of courses and students per course per staff member, course levels and the module pass percentage. Requests were also received about individual students' progress or clickUP activity per course or for all enrolled courses.

Reports using the Community of Inquiry Teaching Presence construct were developed to share with each academic staff member who attended training for implementing the new clickUP Ultra. Each staff member received five reports focussing on different categories of Teaching Presence to assist them with course re-development. Two hundred and seventeen academic staff members who attended the new LMS training received these reports focussing on single or multiple LMS courses. More than 1900 reports were generated and shared, focussing on two hundred and seventy unique courses. The impact of these Teaching Presence reports can only be measured after the lecturers facilitated their courses in the new version of the LMS.

The use of data reports in the LMS is included in the staff development courses. Three hundred and six instructors used the Analytics reports available in the LMS. Eighteen users, including Residence Heads, executed more than 24 K reports in Pyramid. The DHET grant allocation assisted significantly in achieving the stated outcomes in 2023. The grant focuses on empowering different levels in the University with Teaching Analytics data, improving the quality of LMS usage, and using the data for institutional benefits, including audit processes.

Tableau: A Learning Analytics Dashboard was developed in 2022 utilising Tableau software to assist FSAs in identifying first-year students who could benefit from academic advising and coaching. The dashboard integrated Blackboard learn data for all undergraduate students and was utilised to support undergraduate students throughout the year.

2.4.1.2 Student support information

Students can track their progress through an automated process. Recent improvements to the Blackboard notification settings allow students to be notified, for example, if their activity or grade decreases compared to that of their peers. This encourages self-reflection and students assuming agency for learning - a central message in the FLY@UP campaign. Students get push notifications in clickUP, via e-mail, and on the clickUP mobile application when new content is available. Such content includes tests, assignments, or when they have unread blogs, journals, or discussion entries. Students can also manage these notification settings. The notifications appear when the student enters the 'Stream page' in clickUP. Students can also configure which notifications activity appears in their activity stream. These include seven grades and activity notifications: no recent activity, grade low or at risk, grade dropped or increased, low course activity, and course activity or grade in the top 10%. The student support information includes dashboards and reports, as shown in the table below:

Student information	UP platforms
Student reports, dashboards, and nudges	Blackboard Retention Center and dashboards Pyramid Analytics dashboards Student notifications in clickUP Tableau dashboard for FSAs
Lecturers' reports	Blackboard Analytics for Learn student reports Blackboard Course Reports Blackboard Student Risk Reports Pyramid Analytics Reports

Lecturers can enable the Blackboard Analytics for Learn Student Report and make it available to students within each course. The report allows students to compare their activity and progress with their peers in the same course. Each undergraduate course also provides access to Student Risk Reports under the Evaluation in the Course Management links. Students must also be able to track their progress. The Blackboard notification settings allow students to be notified, for example, if their activity or grade decreases compared to their peers.

Reports for staff to identify and support students at risk: Various reports in Blackboard Analytics for Learn™, are utilised by staff to generate reports that identify and provide support to at-risk students. Within clickUP (Blackboard), several embedded data functions enable lecturers to monitor student performance. The use of the Grade Centre will allow lecturers to monitor their student's performance using the following:

- Performance Dashboard (displays all types of user activity in your course).
- Retention Center (early warning system: identify at-risk students and send automated messages). For example, lecturers can use the Retention Center to see which students have not logged in for the past five days and then contact them.
- Course reports (view summaries of course usage), (soon to be released) course design reports.

- Analytics for Learn report, where lecturers can run different reports for their courses that track their students' performance, including at-risk students, based on clickUP activity and grades.

The EI Department offers online courses to teach staff how to use the Grade Center and clickUP data. The Metrical course monitors student participation, while the Grade Center course covers relevant information, enabling students to track their progress using a progress mark. Enrolment in these courses is open, and upon completion, participants receive a letter of participation.

Faculty Student Advisors (FSAs) learning analytics dashboard: The University promotes an evidence-based approach to early warning, chief among them being the development of student success dashboards for FSAs to identify at-risk students based on their engagement data and formative assessments. In 2022, a Learning Analytics Dashboard was created using Tableau so that the FSAs could identify first-year students who may benefit from academic advising. The dashboard incorporated the Learner Case Management, UP Readiness Survey and Blackboard learning data of all undergraduate students and was used to support all undergraduate students throughout the year. The focus was on presenting formative assessment marks through the Learn grade on a monthly basis to the FSAs so that they could identify 'floundering' students throughout the module. The Learning Analytics Dashboard included a page with overview information of a single student, highlighting the engagement in the module, 'learn grade', semester mark and academic information. This view was to aid the FSA in their one-to-one discussions with students. The FSAs are trained to use the dashboards, and regular CoP meetings are held to discuss the practice of reaching out to at-risk students. The FSAs offer a vital anchoring function and provide a 'safety net' service by advising and/or referring students for whatever support or intervention they require. The primary function of FSAs is to provide co-curricular support and development, specific advice on module choice, dropping modules, study skills, time management, stress management, etc.

UP Readiness Survey: The UP Readiness Survey uses Qualtrics to measure first-time first-year students' readiness for university education. Readiness for university education can broadly be defined as a student's level of preparedness (financial, social, and academic engagement) to succeed at a higher education institution. The UP Readiness Survey acts as an early warning system so students can be directed proactively to the mentoring and advising programmes. First-time first-year students self-report their academic readiness in various categories, from family support to study skills to transport and accommodation. Using the data to make referrals to the mentorship programme and FSAs has proven effective in student retention, experience, and success. FSAs proactively use the information received via Tableau to invite students to targeted interventions, such as time management, test-taking, and study skills workshops. The UPRS data is used to identify students requiring financial support, accommodation, disability support and peer mentoring.

Learner Case Management System (LCM): The University uses IDSC's Learner Case Management System to capture FSAs' interactions with students. The Learner Case Management System is also used to generate monthly reports on the FSAs' activities and to provide activity data for reporting purposes to the University Capacity Development Programme (UCDP).

2.4.1.3 Student Support and Communication

The University is committed to fostering an inclusive and supportive environment for all its students, promoting a sense of belonging and community while offering exceptional educational experiences. The institution has implemented various student support and communication platforms to enhance accessibility and student success. Contextual support within clickUP is provided through the Impact Software Solution, which offers tailored assistance to students, ensuring their academic needs are met. Furthermore, Blackboard Ally has been integrated to increase accessibility and support for diverse learning needs. The University has also created a support services information hub using

Blackboard Assist, streamlining access to essential student resources. Utilising the IDSC Learner Case Management System, case management systems capture the FSA's student support interventions. The Anthology REACH platform, an integrated planning and advising system for student success (iPASS), was implemented and piloted in October/ November 2023 to promote personalised guidance and development. Lastly, a student communication platform, ConnectYard, has been introduced, integrating with popular applications like WhatsApp to facilitate seamless communication between students and their lecturers within clickUP.

Student Support and Communication	UP platforms
Contextual support within clickUP	Impact Software Solution
Enhance accessibility	Blackboard Ally
Support services information hub	Blackboard Assist
Case management systems	IDSC Learner Case Management System
Integrated planning and advising for student success (iPASS) platform	Anthology REACH
Student communication platform (WhatsApp)	ConnectYard

Impact software solution: In 2022, Impact change management software was introduced to offer contextual support within clickUP. This platform promotes digital transformation and adoption by providing LMS-integrated messaging and insights into technology usage. Utilising Impact assists in adopting clickUP by delivering contextual support for instructors and students and valuable data regarding users' engagement with clickUP features. It also enables users to submit support requests directly to the e-support office. Several campaigns were initiated to inform users about clickUP developments, including a campaign to encourage downloading alternative Blackboard Ally content formats, which reached 70% of users. The Impact Software will be replaced by Anthology adopt in 2024.

Blackboard Ally: UP is the first African higher education institution to implement Blackboard Ally software to make its digital courses more accessible to all students. This software helps students with learning disabilities and second-language students to improve their academic performance. It also promotes an inclusive learning environment. The adoption of Blackboard Ally aligns with the University's policies on equality and its commitment to embracing diversity. Ally is a revolutionary solution that seamlessly integrates into clickUP, making digital course content more accessible to a broader range of students. It automatically checks digital files for accessibility issues. It generates alternative formats, such as HTML, ePUB, audio, and electronic braille, designed to work better with assistive mobile devices and study tools. Ally also provides feedback to instructors to improve the accessibility of their course material. While the primary focus is making content accessible for all students, everyone can benefit from learning content in alternative formats. For example, students with inconsistent internet access can use offline, low-bandwidth formats. Moreover, those with undiagnosed learning disabilities may benefit from downloading an audio MP3 file to listen to while reading the content. By including accessibility features to enhance digital content in clickUP in all courses, UP proactively addresses barriers to digital content for all students. In 2022, the UP Department of African Languages assisted with the Zulu translation of the software. Blackboard Ally is also available in Xhosa and will soon be available in Sepedi. About 72% of the students used alternative formats provided by Blackboard Ally in 2022, with PDF or ePub being the preferred alternative formats in clickUP. The graph below shows the usage patterns and student preferences when downloading alternative formats.

Blackboard Assist: The University implemented Blackboard Assist in 2021 as a hub for online and on-campus resources to drive student success. It provides students with quick and easy access to all the institutional support services within clickUP.

ConnectYard: ConnectYard is an integrated communication software that enables teaching staff to reach students on their devices using their preferred messaging channels: text, social media, or email. Lecturers used WhatsApp for communication, requiring them to access students' phone numbers and manage groups outside of clickUP. The department will implement ConnectYard in 2023 after the investigation conducted in 2022. Integrating ConnectYard with clickUP enables lecturers to reach students on their devices and track student engagement via its analytics capability. We plan to integrate it with clickUP to improve communication from clickUP using WhatsApp and to ensure that we can replace all the private WhatsApp groups created by lecturers with a controlled and POPIA-compliant system that integrates into clickUP. A brown bag lunch session was held on 2 March 2023 to introduce the wider UP audience to the capabilities of the system.

IDSC's Learner Case Management System: The University uses IDSC's Learner Case Management System to capture the FSAs' interactions with students. The LMS is also used to generate monthly reports on the FSAs' activities.

Anthology REACH: Education Innovation (EI) launched Anthology REACH in 2023, a holistic Integrated Planning and Advising for Student Success (iPASS) platform, to bolster student success and retention. This unified platform will empower the advising team to efficiently handle student success operations and enhance the institution's communication, planning, and monitoring tools from a single central hub. Establishing a unified and all-encompassing student success platform is essential for upholding the University's prominence in student success and refining ongoing initiatives by granting all stakeholders involved in student success access to valuable insights. These insights will facilitate data-driven decision-making and prompt communication.

2.4.1.4 Reflection on learner analytics

The Tableau Learning Analytics dashboard was improved in 2023 by incorporating active Blackboard Learn data through a daily update of clickUP data from the Snowflake data warehouse. The Learner Case Management and HEDA data are also refreshed daily, and in doing so, the FSAs have students' most recent engagement and academic information. Although these developments have improved, the Learner Case Management system is still limited. FSAs cannot refer students to other FSAs in the system or other support departments on campus. The system is very static, requiring multiple manual integration setups in Tableau. The University of Pretoria has subsequently approved the implementation of Anthology REACH, an advanced student relationship management system, to replace the current Tableau Learning Analytics - Learner Case Management system. Anthology REACH is a Microsoft Dynamics 365-based solution for the entire campus, from Admissions to Student Success to Alumni Engagement. An enterprise-wide lifecycle solution, Anthology REACH, guides and encourages students along their experience with the institution. The experience becomes a collection of interactions and activities, building the unique story each person's journey tells. Institutions use those interactions, combined with the data gathered, to strengthen connections with their community in a personalised way. With powerful insights from that data, institutions can be strategic and agile in making the decisions that make a difference in bringing in the next class, driving retention initiatives, and meeting advancement goals. Anthology REACH combines Anthology's deep CRM solutions expertise with Microsoft's application and cloud infrastructure to deliver a system of intelligence for higher education.

2.5 High Impact Modules (HIMs) project

The main objective of the HIMs project is to improve the success rate of modules experiencing lower pass rates by pinpointing the critical areas requiring support and concentrating available resources on those modules. The Department for Education Innovation helps with module reviews through its data analytics team, instructional designers, educational consultants, and tutoring support. In the past, the interventions implemented on high-touch modules have significantly improved pass rates.

The module review process takes a team- and data-based approach. For each module review, an analysis is conducted to determine the specific issues affecting the module's performance regarding curriculum, assessment, policies and practices, support services, communication, students, and lecturers. The review process is based on a combination of quantitative and qualitative data, as well as stakeholder insights. Some potential causes of poor student performance in these modules include:

- Curriculum: the structure of the programme, alignment, content of the module, prior knowledge/skills, admission requirements, and credits (notional hours).
- Assessment (formative and summative): anticipated outcomes, quality, marking, moderation, level, nature, weights, quality assurance, and cognitive demand.
- Teaching and learning: student involvement, prerequisites, prior knowledge, essential concepts, clickUP content, learning materials, study guides, communication, and cognitive demand.
- Student data: readiness, engagement, class attendance, dropout rates, deregistration rates, early alerts, and formative assessment.
- Policies and practices: timetable, facilities, prerequisites, student support (including lecturer availability, tutors, and FSAs).
- clickUP (LMS): design, activities, assessment, communication.

The interventions are categorised into two levels based on the size and performance of the module:

1. High-touch modules (pass rate < 75% & enrolment > 500): They receive dedicated team support from EI, access to data in clickUP dashboards and HEDA, formative evaluations through surveys, further data analysis, and a structured module review. In addition, the deputy deans pay special attention to these high-touch modules and report on their progress at Tshebi.
2. Medium-touch modules (pass rate < 70% & enrolment < 500) receive data and negotiated support from EI.

HIGH IMPACT MODULES (HIMS) PROJECT PROCESS

To support the improvement of low-performing modules, the following six-step process is employed:

Step 1: Deans and Deputy Deans use the HIMs dashboard to identify the HIMs modules in their faculties:

- High-touch modules (pass rate < 75% & enrolment > 500)
- Medium-touch modules (pass rate < 70% & enrolment < 500)

Step 2: Deputy Deans for Teaching and Learning collaborate with the Heads of Departments and lecturers. Staff from HERI upload the lecturers to the Microsoft SharePoint portal, where lecturers can proceed with the self-evaluation survey.

Step 3: When finished, lecturers complete the module self-evaluation survey and notify the Deputy Deans for Teaching and Learning, the Head of the Department, or the module coordinator.

Step 4: Based on actionable data from the module self-evaluation report, Deputy Deans for Teaching and Learning, Heads of Departments, or module coordinators can request support from the relevant sections of the Department for Education Innovation, including:

- Education Consultants to help with teaching and learning quality, assessments, and curriculum issues.
- Instructional Designers to assist with clickUP content, student and lecturer engagement, and course/learning design and setting up the Retention Center in clickUP as an early warning system.
- The SFTS EI team will support with formative mid-semester surveys to identify possible student issues.
- Tutorial funding for these modules throughout the course.

Step 5: Evaluation of module interventions and outcomes: The lecturing team evaluates the module interventions and outcomes and reports to the Head of Department and Deputy Deans at the end of the semester.

Step 6: Reporting on the interventions at a Tshebi meeting: Heads of Departments or Deputy Deans give feedback on the impact of the interventions at a Tshebi meeting, which presents and discusses data of high-impact service modules across the phases of progression and arrives at actionable recommendations for follow-up by Deputy Deans.

RESULTS

The 2022 module success rates were used to identify modules for the reviews. Therefore, the 2022 success rate will be used as the basis to compare the 2023 module success rates. The interventions within these modules were managed by the lecturing team from that module and, in some instances, the Education Consultants from EI. Based on the 2022 academic year module pass rates (MPP), 48 modules were identified as High Touch, 214 as Medium Touch, and 1776 as Zero Touch institution wide.

HIMs Indicator	2019	2020	2021	2022	2023
High Touch	55	22	35	48	33
Medium Touch	189	115	185	214	100
Zero Touch	1 886	1 885	1 800	1 776	1 911
Total	**2 130**	**2 022**	**2 020**	**2 038**	**2 044**

Figure 21: Count of modules by HIMs category and term and the distribution of 2022 modules by Session and HIMs category

Overall, 73 modules were selected by the faculties as HIMs, although not all were formally reviewed by the lecturing team. From the records, 27 High Touch modules and 25 Medium Touch HIMs, were selected by deputy deans from the 2022 HIMs list for review. The selected modules were added to the Faculty's HIMs SharePoint Sites, accessible to the lecturing team, HoD, deputy dean of teaching and learning, and respective Educational Consultants (ECs). The ECs received a workshop from HERI on making the best use of the sites to drive collaboration and accessibility of information throughout the process.

Figure 22 below shows an improvement in module success rates in each of the faculties where modules were selected for review, with an overall improvement of 12.6 percentage points.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
⊞ **EBIT**	**3364**	**56.74%**	**2957**	**73.44%**
⊞ **Economic and Management Sc**	**8135**	**70.18%**	**8071**	**78.12%**
⊞ **Health Sciences**	**1121**	**62.03%**	**1033**	**84.59%**
⊞ **Humanities**	**3596**	**64.40%**	**3594**	**82.67%**
⊞ **Natural and Agricultural Sc**	**18782**	**60.95%**	**17722**	**73.35%**
Total	**34998**	**63.24%**	**33377**	**75.85%**

Figure 22: The module success rate of the 73 selected HIMs by the faculty

Figure 23 below shows that all EBIT modules improved in module success rate. Although three of the five modules are still HIMs, the two NMC modules have improved to above 70% and may be regarded as a successful intervention. The overall improvement in module success rate is 16,7 percentage points.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
⊟ **EBIT**	**3364**	**56.74%**	**2957**	**73.44%**
COS 132	742	43.11%	865	65.75%
EBN 111	682	64.01%	603	78.52%
EBN 122	681	67.17%	447	84.80%
NMC 113	542	53.94%	445	70.33%
NMC 123	717	56.26%	597	74.60%
Total	**3364**	**56.74%**	**2957**	**73.44%**

Figure 23: The module success rate of HIMs by the Faculty of EBIT

Figure 24 below shows that all EMS modules improved in module success rate except for BDO 121. Four of the modules are still HIMs. However, three of the four have improved to above 70% and may be regarded as a successful intervention. Only one module could still be regarded as a HIM. The overall improvement in module success rate is 7,94 percentage points.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
⊟ **Economic and Management Sc**	**8135**	**70.18%**	**8071**	**78.12%**
ABV 320	487	69.04%	474	76.25%
BAC 200	689	73.41%	677	78.37%
BAC 300	711	60.96%	643	74.53%
BDO 121	260	66.53%	368	62.87%
BDO 319	416	69.17%	420	79.90%
BEL 200	956	69.59%	1000	81.61%
BEL 300	799	71.05%	668	76.93%
FRK 201	407	74.19%	533	81.13%
FRK 300	479	71.43%	383	86.35%
OBS 220	1359	73.54%	1127	78.41%
OBS 310	631	72.45%	758	74.00%
OBS 330	682	73.42%	701	84.76%
PUF 110	259	55.42%	319	71.25%
Total	**8135**	**70.18%**	**8071**	**78.12%**

Figure 24: The module success rate of HIMs by the Faculty of EMS

Figure 25 below shows that all Health Sciences modules improved in module success rate. Only one remains as a HIM. From the data, four modules did not have results in 2023 and could not be compared to the 2022 results. The overall improvement in module success rate is 22,56 percentage points, although it should be taken into consideration that the improvement is without the results from the four modules without results.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
Health Sciences	**1121**	**62.03%**	**1033**	**84.59%**
ANA 185	76	64.00%	100	93.75%
ANA 214	86	65.00%	62	95.00%
ANA 247	104	55.68%	79	83.82%
ANA 316	61	57.63%	77	65.71%
DTT 310	28	60.00%	35	100.00%
FAR 381	320	64.38%	283	83.39%
FLG 332	354	62.46%	370	83.58%
KVG 300	24	56.52%		
MDB 172	22	63.64%	27	84.62%
VPB 110	14	50.00%		
VPB 120	10	55.56%		
VPT 360	22	59.09%		
Total	**1121**	**62.03%**	**1033**	**84.59%**

Figure 25: The module success rate of HIMs by the Faculty of Health Sciences

Figure 26 below shows that all Humanities modules improved in module success rate, except for LAT 110. LAT 110 was not a HIM by definition but was included for a review. This module declined from 85,3% to 66.7%. In the end, three modules remain as HIM. The overall improvement in module success rate is 18,27 percentage points.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
Humanities	**3596**	**64.40%**	**3594**	**82.67%**
AFR 110	235	69.32%	173	83.16%
AGL 120	117	61.97%	128	89.80%
AKG 120	105	64.10%	92	77.61%
DTS 104	81	69.81%	99	83.56%
ENG 110	2507	66.45%	2530	83.66%
FRN 104	221	48.34%	246	69.64%
GHO 102	7	57.14%	9	100.00%
HEB 110	41	51.72%	41	66.67%
LAT 110	47	85.29%	35	66.67%
LAT 120	29	64.29%	31	81.82%
MEI 102	7	42.86%	9	77.78%
MKT 103	7	57.14%	9	88.89%
MTI 102	8	50.00%	10	90.00%
SPN 102	151	38.36%	166	86.15%
SPN 211	33	68.00%	16	87.50%
Total	**3596**	**64.40%**	**3594**	**82.67%**

Figure 26: The module success rate of HIMs by the Faculty of Humanities

Figure 27 below shows that two NAS modules declined in module success rate and that 14 of the 28 modules remain HIMs. The overall improvement in module success rate is 12,4 percentage points.

Term Course Faculty	2022 Count of Registration Count	MPP_Module	2023 Count of Registration Count	MPP_Module
Natural and Agricultural Sc	**18782**	**60.95%**	**17722**	**73.35%**
BCM 356	183	61.78%	175	70.66%
BCM 367	202	62.20%	157	83.74%
BCM 368	266	53.71%	195	83.85%
BME 120	1497	64.82%	1418	57.49%
BOT 251	275	64.68%	181	72.39%
BOT 261	245	67.94%	190	68.29%
CHM 171	638	58.33%	621	77.61%
CHM 172	575	55.49%	500	80.69%
CHM 181	188	50.00%	145	80.56%
CHM 215	72	52.17%	81	44.44%
CMY 117	1301	55.57%	1297	75.84%
CMY 127	1627	65.23%	1530	79.45%
CMY 282	147	61.15%	135	59.20%
CMY 284	132	53.17%	137	84.92%
FSK 116	677	66.92%	699	73.62%
FSK 176	605	64.44%	563	79.49%
GGY 166	86	71.23%	110	73.83%
GTS 251	760	71.15%	644	83.12%
MBY 161	1153	60.44%	1125	73.58%
MBY 262	262	33.15%	198	84.25%
MLB 111	1541	63.78%	1696	73.94%
PHY 131	1568	68.74%	1657	88.25%
WTW 114	953	46.36%	885	58.54%
WTW 115	550	55.29%	449	59.72%
WTW 124	997	53.14%	938	54.82%
WTW 133	283	69.35%	281	84.17%
WTW 164	1766	56.59%	1552	65.56%
WTW 221	233	60.53%	163	75.78%
Total	**18782**	**60.95%**	**17722**	**73.35%**

Figure 27: The module success rate of HIMs by the Faculty of NAS

The SharePoint portals were developed in 2023 to assist in tracking and recording HIM reviews. Although Educational Consultants commended the SharePoint environment and its utility in supporting collaboration and storing evidence from various activities, lecturers did not use it. Lecturing teams from only ten modules completed the Module Review survey, with an average completion time of 63 minutes. A copy of the aggregated results is available here. The survey length was an issue, and the Education Consultant group recommended that the survey be shortened and that only actionable questions be included. The complete survey was provided to the ECs, and from that, they rephrased the questions and eliminated questions that needed to be more relevant. The survey platform did not allow users to reflect on questions and submit answers at a later stage. HERI developed an online application with the shortened version of the Module review survey which the lecturing team can complete. This module review application is available to ECs and the lecturing team here. During 2024, the HERI team hoped for a more significant uptake of the SharePoint portals by the lecturers, which they needed to realise. The SharePoint portals will now be repurposed to cater to the Deputy deans and the Education Consultants. A single SharePoint portal will be created to provide Module and Programme-related data via PowerBI reports and dashboards and additional information to assist HIM reviews.

In summary, the HIMs selected for review by the deputy deans improved on the whole. Although some modules remain as HIMs, there was a marked improvement in almost all the modules. Only ten modules underwent a 'formal' review with the module review survey. It may be that other modules were reviewed without completing the survey formally with notable success. Therefore, the evidence of the review is not known, and feedback is not possible. This also highlights the fact that EI and HERI do not have to facilitate the process formally but provide information and tools to strengthen the hands of the ECs that work primarily with the lecturers and the deputy deans who have oversight of the outcomes, such as the suggested SharePoint site dedicated toward the ECs and deputy deans.

2.6 PeopleSoft career development portlet

The UCDG funding was utilised to optimise the teaching and learning career development of academics by creating a portlet on PeopleSoft. This portlet addresses the need to enhance the relevance and accessibility of Continuous Professional Development (CPD) opportunities for academics at UP. These opportunities are essential to improving the employee experience and advancing the implementation of the National Framework for Enhancing Academics as University Teachers. They foster skill development, agility, and responsiveness, leading to tailored development plans for academics at different career stages. Additionally, providing easy access to a variety of learning components in academics' work will improve the quality of teaching and learning, resulting in better student outcomes and facilitating the transition to new online and blended learning environments. To ensure that the portlet met the system requirements, several workshops were held with the Senior HR Business Analyst and the developer. The EI portlet supports the following business goals:

- To enable a one-stop place where an academic staff member can inquire what CPD opportunities are available for the specific career stage in which they find themselves, aligned with policy requirements. This will lead to appropriate teaching and learning plans to be approved by HODs on PeopleSoft (PS). This is aligned with the implementation of the Department of Higher Education's National Framework to Enhance Academics as University Teachers.
- To enable academic staff to search for relevant learning components in their flow of work.
- To enhance the quality of curriculum, teaching, learning, and assessment in UP through appropriate CPD training for UP academic staff.
- To assist with and provide academic staff access to applicable courses/information timeously.
- Request peer reviews and Scholarship of Teaching and Learning (SOTL) grants.
- Assisting academic staff in presenting evidence of developmental activities updated on their electronic CVs.
- To enable ECs to build, amend, and source CPD opportunities for staff.

3 Student's academic success support

The University of Pretoria (UP) seeks to provide an environment where students can succeed and flourish. The University is fully committed to supporting and assisting students and eliminating obstacles to success. At the same time, students should take responsibility for their own success and career development. Student success also includes job readiness, preparation for post-graduate studies, and post-graduation employment. In 2023, EI developed a document that provides an overview of the various initiatives UP has in place to support student success: "Student Success at UP: Roles and responsibilities". The first step towards enhancing student success is to provide quality teaching and learning opportunities for students to engage actively and authentically with the knowledge, skills, attitudes, and values of a particular discipline/field. To thrive in today's world of work, students must be adaptable, ethical, critical thinkers, problem solvers, team players, collaborators, effective communicators, and self-directed learners who are interculturally aware. This requires high-quality teaching and learning and relevant curricula.

Only three of the 68 EI staff members (excluding the externally funded donor programmes) focus on student-facing academic success initiatives. Although EI is a professional staff-facing department, it houses the FLY@UP student awareness campaign coordinator. This is funded by the Deputy Vice Chancellors (DVC) office but is housed in the EI Department. As such, EI drives student support by

training and supporting our lecturers to prepare students for their future work or further studies. Lecturers must ultimately take responsibility for student success through their teaching excellence, quality assessments, and relevant curricula.

As students are expected to be capable of studying independently upon graduation, we adhere to a gradual release model to facilitate this transition. First-year students receive more support, which should gradually decrease as they progress into their second and third years. There is already a considerable gap between grade 12 and first-year university. In high school, students typically spend a set amount of time in class each day, often six or seven hours. In contrast, first-year university students may have significantly fewer hours of in-class instruction (CHE requires 30% in 1st and 2nd years & 25% after this). Transitioning from high school to university can be challenging. Some differences are the percentage of time in class and larger classes, faster learning pace, less structure and guidance from teachers and parents, being away from home, freedom, and self-time management. This is why we provide extra and extensive support to first-year students, which includes orientation, tutors, mentors, and FSA workshops. The University must establish an efficient, user-friendly, and inviting environment that accommodates students and meet them where they are.

Student success initiatives, such as the digital student success infrastructure and Faculty Student Advisors (FSAs), are generally accessible to all students. However, certain initiatives target specific cohorts of students or modules based on risk factors, including financial, academic, disability, or psychosocial aspects. Transitioning from high school to university can be particularly challenging for first-generation students and those from underprivileged communities. The University strives to facilitate a seamless transition for these students. Therefore, the UP Readiness Survey results are used to identify first-generation students for targeted interventions, such as the STARS peer mentorship programme. In addition, the information is also used to identify and refer students who reported financial distress, accommodation challenges, data/device challenges, or a recognised disability to the respective support departments.

3.1 The orientation of the first-year students

The Academic Orientation introduces first-year students to all aspects of university life to ensure a smooth transition to the tertiary environment. This is done by providing comprehensive support to students to make this transition. The three-tiered, first-year orientation programme won an international award from Anthology, namely, the 2022 Catalyst Award: Optimizing the Student Experience. At UP, the orientation of first-year students is considered a critical success factor in attaining Goal 1 of the University's strategy, i.e. to increase access, throughput, and success. To enhance the impact of Academic Orientation week, efforts were made to incorporate each faculty's context by collaborating closely with faculties during the planning stages of the programme. The Academic Orientation Programme (https://www.up.ac.za/orientation) consists of a pre-orientation online module, Academic Orientation Week, and a seven-week online faculty-based extended orientation course (the University of Pretoria Extended Orientation - UPO). The Academic Orientation Programme (https://www.up.ac.za/orientation) comprises the following elements:

- A Pre-orientation online module that opened on 25 January 2023 and could be completed using laptops, PCs, or smart mobile devices.
- A Faculty-based Hybrid Academic Orientation Week from 13-17 February 2023.
- A seven-week online extended orientation course called UPO (University of Pretoria Extended Orientation), which includes various academic and soft skills and is monitored by the FSAs.

The three-tiered Academic Orientation Programme is positioned between Step 2 (entry) and Step 3 (progress) to support students in transitioning from registration to progressing through their first year and beyond at university.

3.1.1 Pre-orientation online module

We know that we enrol several students from disadvantaged backgrounds without access to technological tools and who may not have used computers before. Therefore, the pre-orientation module was developed for and opened to all unconditionally admitted students on 25 January 2023. This online module can be completed using a PC, laptop or smart device. The aim of this module is to give these learners a glimpse into what they may expect from academic life at UP. The module is monitored by the orientation team, and regular nudges are sent to students who are not progressing satisfactorily. The pre-orientation module consists of three units.
Unit 1: Computer confidence: this introductory computer course is offered on three levels: students who are not comfortable with computers; students who are moderately comfortable with computers and thirdly, students who feel comfortable using a computer. The module was monitored by the course facilitators and regular nudges were sent to students who were not progressing satisfactorily.
The second unit of the pre-orientation module is called Skills to support your academics. This unit consists of three parts:

- PART ONE: Academic reading
- PART TWO: Academic writing
- PART THREE: Grammar

The final unit looks at aspects related to being a financially savvy citizen and understanding currency. Topics dealt with in this unit include:

- Saving,
- Budgeting,
- Percentages,
- Earnings,
- Taxes, etc.

A total of 5,222 students completed the pre-orientation, and 5,132 of these students are now registered UP students. Upon starting the pre-orientation, 466 students self-reported being uncomfortable using a computer. Another 2,644 self-reported that they were moderately comfortable using a computer, and 2,367self-reported that they were very comfortable using a computer.

Table 21: A comparison of the completion figures of the Pre-Orientation in 2022 and 2023

	2022	**2023**
Completed	5,645	5,222
Registered students	5,459	5,132

3.1.2 The Academic Orientation Week (13 - 17 February 2023)

Participating in the orientation programme is compulsory for all first-year students as this supports and prepares them for the year ahead. The aim of the Academic Orientation Week is to:

- make students feel welcome at UP,
- help students to adapt to the university environment,
- prepare students for the academic year,
- ensure that students cope with the academic demands of being at university, and
- ensure that students know where to find help at UP.

Part of the support the orientation week provides comes in the form of information stations manned by senior students where first-year students can ask for directions and advice. The orientation team extended this support into the first week of lectures to assist students in navigating the campus sooner and not miss lectures in the first week due to being lost. It was agreed that students registering for "open" programmes (for example, BA General) will register only for fundamental modules before orientation. Registration for core and elective modules will be concluded after the curriculum advice sessions take place during the academic orientation week.

The 2023 Orientation programme was designed as a hybrid model. To manage the traffic on clickUP during the fully online orientation, faculties were divided into two groups for the 2022 orientation program. This proved successful, and it was thought that following a similar model would assist with

venue bookings and logistics when the orientation program is moved back to campus. For this reason, faculties were again divided into two groups for the 2023 hybrid Academic Orientation Week. For Group 1, comprising EBIT, NAS, Health, Vet, and Edu, the orientation began on Monday, 13th February, with an on-campus session, followed by an online session on the 14th, and concluding with two consecutive on-campus days on the 15th and 16th. Group 2, including HUM, EMS, Law, Theology & Religion, and Mam, started their orientation a day later on Tuesday, 14th February, with an on-campus session, mirrored Group 1's schedule from the 15th, and ended on Friday, 17th February with an on-campus session.

Day 1: Students and staff on campus and in venues according to study programme
Monday 13 February OR Tuesday 14 February 2023 according to the groups in table 22

- The VC, DVC Academic and the Dean's welcome was presented in the form of a video that was played during the first session of the day and facilitated by the Head of Department or designated staff member. In smaller faculties, the Deans opted to speak in person and only the VC and the DVC's videos were played.
- All programmes commenced with a "Welcome to the Department" session that was presented on campus by the HOD (or designated staff member). This added a logical flow to the programmes and allowed all departments to be first to welcome their students to UP.
- Administrative and curriculum advice sessions were made longer and were presented in-person and on campus.

Day 2: Online video sessions
Tuesday 14 February OR Wednesday 15 February 2023 according to the groups in Table 22
Day two opened with a live online session facilitated by the FSAs. The live session was followed by support services sessions presented online in video format.

Table 22: Number of students accessing the online day's content.

Faculty	UPO Code	Students enrolled	Active students	Interactions
Faculty of Economic and Management Sciences	107	1,620	1,447	68,630
Faculty of Education	109	1,513	1,054	49,939
Faculty of Engineering, Built Environment and Information Technology	112	1,772	1,662	78,496
Faculty of Health Sciences	110	779	751	63,174
Faculty of Humanities	101	1,256	1040	43,746
Faculty of Law	104	578	520	22,922
Faculty of Natural and Agricultural Sciences	102	1,277	1180	62,699
Faculty of Theology and Religion	105	116	52	2,746
Faculty of Veterinary Science	108	289	224	10,421
Mamelodi Campus	120	646		28,061

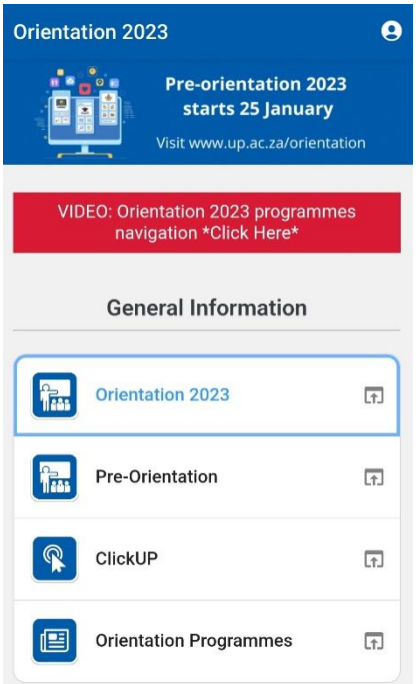
Day 3:
Wednesday 15 February OR Thursday 16 February 2023 according to the groups in Table 22
All remaining faculty and/or departmental sessions presented on campus.

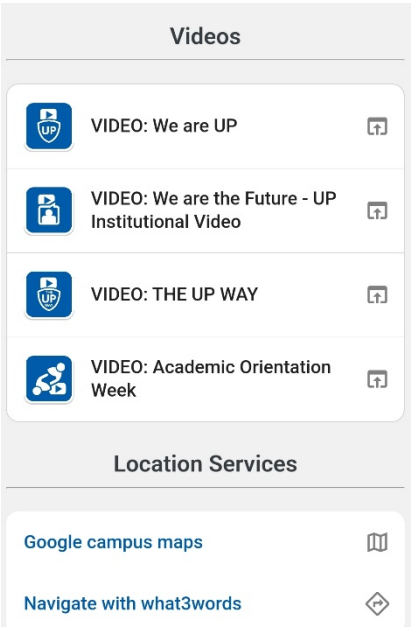
Day 4: Support and networking day
Thursday 16 February OR Friday 17 February 2023 according to the groups in table 22
The "Support and networking day" was hosted on campus and included interactive networking sessions hosted by senior students (mainly 2022 STARS mentors). Additionally, this day featured interactive exhibitions hosted by Key and Special Committees, Faculty Houses, Day Houses, Tuks Sport, and Support services (FLY@UP, FSAs, Student Counselling Unit, Student Health Services, Library Services, Career Services, DESA: Examinations, CSA&G etc) who were also available to meet with new first year students in the Piazza.

The orientation team partnered with UP Campus Tours to take students on physical campus tours and with the Javett Art Centre who offered tours of the Javett on day 4. The Javett Art Centre also approached the orientation team with a proposal to host an event at the end of day 4. Javett arranged for a DJ and local food trucks and invitations to the event were printed in the orientation programmes. The outside area in front of Javett, where the event was hosted was packed with students who attended the event that concluded the Orientation Week.

3.1.3 UP Mobile App Orientation Persona

EI has worked in collaboration with the UP Mobile app developer to add an orientation persona to the existing UP Mobile app. The Orientation persona allows students, for the duration of the Orientation, to access the different Faculty programmes and an interactive campus map. A welcome message will be sent the day before orientation, with follow up messages on subsequent days.





The current Academic Orientation Programme for first-year students focuses on transitions, advice and academic support, support information that students will need, practical sessions using technology, and information regarding the University's expectations of students. Collectively, this gives first-year students a TASTE of UP:

- **T**ransitions@UP:
    - UP Readiness Survey
    - STARS mentorship programme
    - Work readiness
    - Faculty House
- **A**dvice and Academic Support@UP:
    - FSAs
    - Faculty administration (timetable explanation and programme information)
    - Library
- **S**upport@UP:
    - Student counselling services
    - Student health services
    - Gender-based violence
    - Anti-discrimination
    - The Disability Unit
    - Security
- **T**echnology@UP:
    - UPO
    - ClickUP
    - Learn the UP WAY
- **E**xpectations@UP:
    - Academic integrity
    - Faculty information sessions
    - Discipline competences

Overall, 82.5% of students in 2023 registered during the orientation period had attended the academic orientation week. These students reported that they felt welcome, knew where to find support, and were ready for the academic demands of university life.

3.1.4 Seven-week online extended orientation programme (UPO)

All students are required to complete a seven-week online extended orientation programme (UPO). In 2023 the online day (day 2) of the academic orientation was presented in the first week of UPO, called week-O. The UP-Readiness Survey was administered in the first week of UPO. At-risk students, as identified by the UP-Readiness Survey, had the opportunity to join the STARS mentorship programme. The aim of the programme is to assist first-year students with their transition from high school to university by supporting them socially and emotionally. The additional spin-off is boosting their academic performance.

The UPO modules are monitored constantly, and students are motivated to engage with and complete the module through regular (weekly) nudges. Assessments in UPO, that encourage student engagement in the module, are concluded within a few weeks of delivering the eight-week content. The resources and tools contained in UPO however, remain available to students throughout the academic year. This provides the first-year students with access to academic support and consultation with Faculty Student Advisors (FSAs), who are the facilitators of UPO. FSAs are available to address academic challenges throughout the year. The following topics are covered in the UPO curriculum:

1. Hello Student: Online Orientation.
2. Let's go - module choices and tools for transitioning.
3. Get real - set your goals and manage your time.
4. Get down to academic (reading and writing) business.
5. Get going - engaging with class and studying effectively.
6. Take a break; fill up.

7. I can - success stories.
8. Exam preparation & managing stress.

In addition to the above, further support is provided by DSA through their First Year Experience module (FYX).

Each Faculty has its own UPO module:

- UPO101 - Humanities
- UPO102 - Natural and Agricultural Science
- UPO104 - LAW
- UPO105 - Theology and Religion
- UPO107 - Economic and Management Science
- UPO108 - Veterinary Science
- UPO109 - Education
- UPO110 - Health Science
- UPO112 - Engineering, Build Environment, and IT
- UPO120 - Mamelodi

3.2 clickUP course for first-year students

The aim of the clickUP introductory online self-paced course is to familiarise all new students with clickUP (Blackboard, the University's LMS). We encourage students to register as early as possible in the year to complete the course. The document entitled 'clickUP login and self-orientation course' contains more information on logging in to clickUP, navigating the system, and how to access the course. The course has built-in exercises that simulate activities such as uploading Turnitin assignments. Students can also work through the resources available on the clickUP Student Help Site before and after being formally registered. Some of the valuable resources on the clickUP Student Help Site include instructions on how to log in to clickUP and navigate the system, use Blackboard Class Collaborate and the discussion board, submit Turnitin assignments, and set up a university email address.

A new clickUP Ultra introductory self-paced course and a clickUP Ultra Student Helpsite was developed during 2023 to support the students who participated in the first phase implementation during the second semester. These resources will continue to be utilized to support the first year students in 2024, and will eventually replace the existing resources for clickUP Original.

In addition to the self-paced course, the instructional designers presented 15 student orientation sessions to mostly post-graduate students. This training addressed introduction to clickUP, Turnitin and portfolios. More than 493 students were part of these courses.

Date	Topic	Audience	Attendees	Presenter	Duration
25/01/23	clickUP orientation and Turnitin	ASELPH	80	N Ngcobo	
27/01/23	clickUP orientation session	Social Work Masters students (MWT 864)	27	G Pretorius	1 hour
30/01/23	Overview of clickUP, login steps, email forwarding, Tii Self-help module	EMS MCom	22	K Sebake	2 hours

06/02/23	Overview of clickUP, login steps, email forwarding, Tii Self-help module	EMS	8	K Sebake	2 hours
14/02/23	Turnitin and ClickUP Orientation	MScGOH Institute of Tropical Medicine of Antwerp, Belgium staff and students	8	V Nkosi	1 hour
15/02/23	clickUP orientation session	BA Hons (CAAC) students	15	G Pretorius	1 hour
16/02/23	Self-orientation module Assessments	PGCE	25	J Maroga	2 hours
20/02/2023	Turnitin Login to clickUP	Bed Hons students	30	J Maroga	2 ½ hours
21/02/2023	clickUP orientation	MECI students	11	G Pretorius	1 ½ hours
01/03/2023	clickUP orientation and Turnitin	VNM801	34	N Ngcobo	
27/03/2023	Access to clickUP Self-orientation module	TVET	30	J Maroga	1 hour
17/04/2023	Turnitin	TNM802_700	16	N Ngcobo	
08/05/2023	Portfolio	CNT 480	6	N Ngcobo	
30/08/2023	Portfolio	MWP 400	56	G Pretorius	1 ½ hours
02/10/2023	Portfolio	MWP 261	67	G Pretorius	2 hours
16/10/2023	Portfolio	MWP 361	72	G Pretorius	1 ½ hours
Totals	**15**		**493+**		**19+ hours**

3.3 UP Readiness Survey

The UP Readiness Survey measures students' readiness for university education. Readiness for university education can broadly be defined as a student's level of preparation (financial, social, and academic engagement) to succeed at a higher education institution. The results of the UP Readiness Survey are used to identify first-time first-year students for targeted interventions, such as first-generation students for the STARS peer mentorship programme or academic advising by the FSAs. In addition, the information can also be used to identify and refer students who reported financial distress, accommodation challenges, data/device challenges, or a recognised disability to the respective support departments. The results are also used better to understand the profile of the new cohort of students. The survey captures the following demographic and pre-entry characteristics: first-generation students, school-related characteristics, financial considerations, housing arrangements, transport opportunities, data and device needs, and the employment status of parents or guardians.

Using the data to make referrals to the mentorship programme and FSAs has proven effective in student retention, experience, and success. FSAs proactively used the information received via the Learning Analytics dashboard to invite students for targeted interventions. 6,977 first-year students completed the UP Readiness Survey in 2023, a participation rate of 81% of first-time first-year students (8653). Of these students, 32% indicated a need for time-management skills, 30% a need for study skills, and 27% a need for test-taking skills from the FSAs. A total of 6536 students completed the UPRS in 2023, with a participation rate of 71% (9246 first-time entering students). A new dashboard focused on aggregate survey data was developed for the executive management staff on Tableau to view the profile of the first-time entering first-year students. The UPRS dashboards will be transferred to PowerBI dashboards in 2024 to accommodate its use in Anthology REACH. The UPRS will also be administered through Microsoft's Customer Voices platform so that the responses can be captured within Anthology REACH.

3.4 FLY@UP awareness campaign

The FLY acronym, ' The Finish Line is Yours', is a tagline unique to UP, and it serves as a reminder and call to action to students that they are responsible for ensuring they complete their studies in minimum time. This message moves away from the narrative that student success lies mainly in the hands of the lecturers and student support staff. FLY@UP is a comprehensive, institution-wide student success awareness initiative. Appendix A in the document "Student Success at UP: Roles and Responsibilities" describes the UP student success life cycle in more detail in terms of four phases, namely a connection phase, an entry phase, a progress phase, and a completion phase.

Student success at the University is a multi-stakeholder-driven initiative led by the Deputy Vice-Chancellor (DVC): Academic. The stakeholders include Deputy Deans: Teaching and Learning, the Director and deputy directors of relevant support departments such as the Department for Education Innovation, heads of departments, and the faculty teaching and learning committees. Therefore, all faculties and departments at the University are represented at the bi-annual FLY@UP meetings (chaired by the DVC: Academic), where critical issues related to student success are discussed and coordinated to eliminate obstacles to academic success at the University of Pretoria. The implementation of this approach at UP entails the integration and close coordination of the faculties and all professional and support departments, which include various initiatives like student recruitment, enrolment, financial aid, student accommodation, academic development, student well-being, marketing, sport and recreation, campus safety, health services, counselling, career services, student advising, student development and leadership, student wellness, and the work done by the Centre for Sexuality, AIDS and Gender (CSA&G).

The FLY@UP campaign coordinator is housed in the Department for Education Innovation. The FLY@UP campaign coordinator is responsible for raising awareness among students about the importance of completing their degrees in a minimum amount of time. The awareness campaign is conducted mainly on social media (Facebook, Instagram, Wix blogs, TikTok, LinkedIn and Threads) but also includes quarterly newsletters, relationship building with the SRC, Faculty Houses and Academic reprasentatives of UP residence House Committees as well as monthly on-campus activations in partnership with the FSAs, peer advisors, and other support departments. The activations on all the UP Campuses make students aware of all the support services offered by UP but also signal to students that completing their degrees in the minimum amount of time is their responsibility. Taking responsibility for one's life and career goals is one of the critical graduate attributes that the University endeavours to engender and encourage. FLY@UP endeavours to create a 'help-seeking' culture amongst our students.

Four FLY@UP newsletters were distributed to the students via social media and clickUP. These newsletters aimed for FLY@UP to inform the students about the UP-support network and provide all the necessary information they may need during the specific quarter they were heading into for the year. Quarter 1 and 3's newsletters were geared towards support service information. They encouraged students to be proactive and reach out/be informed regarding all the free support services available to them at the University. Quarter 2 and 4 newsletters were distributed just before exams started and contained helpful and insightful information regarding exams.

In 2023, the FLY@UP social media platforms were used consistently to share vital information, key dates, UP support services' offerings, contact details, and interactive content, both Instagram and Facebook pages were growing every day with a total of 8.4k followers on Instagram and 9.3k followers on Facebook. Additionally, in 2023, the campaign brought back the very popular pop-up thrift store where students could shop for thrift clothes for free (Staff and students donated 2836 items of clothing for the Semester One thrift and 3 164 items for the Semester Two thrift). In addition, FLY@UP again collaborated with Spec-Savers Hatfield to provide an estimated 200 students per semester with new glasses.

In 2023 FLY@UP facilitated the ambassador program again, with 16 ambassadors (UP students) hired to assist with the social media campaigns, coordinating, sharing, increasing awareness, and much more, again highlighting the FLY@UP message to our students. The ambassador programme not only provides students with some on-campus work but teaches the students vital industry skills to take into the work force one day. Lastly, FLY@UP tested out a new strategy in the 2023 year for it's READY 4 EXAMS activations where originally exam packs would be handed out to students at activations, this year however, the exam packs were distributed to the Faculty Student Advisors (FSA) to hand out to students attending their exam workshops, in an effort to get the workshop attendance up, ultimately benefiting and getting the students ready for the exams each semester.

Four newsletters were distributed to students via social media and clickUP, to inform students about the UP support network and provide necessary information for specific quarters of the year. The newsletters contained information gathered from the FSAs, peer advisors, student health services, the student counselling unit, SEMLI, library services, SWC, and various other student support services at the University:

- Newsletter 2023, Vol.1, Quarter 1 read HERE
- Newsletter 2023 Vol.2, Quarter 2 read HERE
- Newsletter 2023 Vol.3, Quarter 3 read HERE
- Newsletter 2023 Vol.4, Quarter 4 read HERE

3.5 Faculty Student Advisors

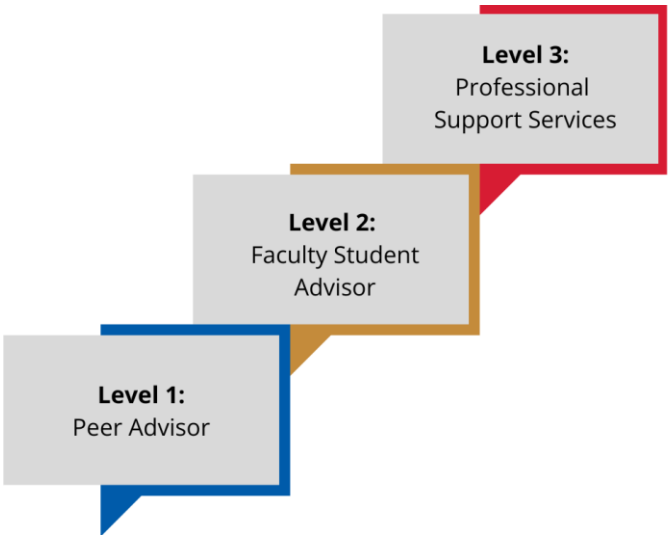
Student advising plays an essential role in ensuring student success. Faculty Student Advisors (FSAs) at the University of Pretoria (www.up.ac.za/advising) serve as an invaluable support system, offering advice and referrals for students in need of various forms of assistance. FSAs primarily focus on co-curricular support and development, including specific module selection advice, guidance on dropping modules, and assistance with study skills, time management, and stress management. Furthermore, FSAs manage the University's extended Online Orientation (UPO) modules, which equip students with critical academic skills, and convene monthly to ensure a consistent approach across faculties.

A strong referral network has been established with the Student Counselling Unit and other support services, enabling targeted interventions by advisors, such as reaching out to students based on first-semester test results or mid-year exam analysis. This comprehensive approach is designed to assist at-risk students. The introduction of case management software in 2021 and the implementation of

Anthology REACH, a more comprehensive student success software, in 2023, are further steps toward enhancing the FSAs' ability to track and support students.

Since 2016, the University of Pretoria has been dedicated to improving graduation rates within the minimum time frame. The advising system, a key element of the University's student support ecosystem, has experienced increasing demand since its inception in 2010. Initially consisting of five advisors, the system has grown, leading the University to fund nine permanent advising positions in 2019. However, this is still insufficient, particularly in faculties with over 10,000 student registrations. As a result, UCDP grants have been used to fund supplementary positions across the 9 faculties of UP. The current request seeks to continue this practice by using UCDG grant funding to cover the salaries of the existing 13 advisors and add one more position, thus funding as follows:

- 4 half-day appointments
- 10 full day appointments.



FSAs are highly trained professionals who offer vital academic services by advising and referring students. Unfortunately, the demand for FSA support exceeds the University's capacity, prompting many deputy deans to request additional FSA appointments. A large proportion of student queries relates to routine advising issues, which can be quickly addressed by advisors with a more basic skill set, available at a lower cost. This led to the introduction of a multi-level support system, where Peer Advisers handle initial issues - carefully selected students skilled in addressing routine or common concerns. If a student's issue is more complex or requires specialised knowledge, it is escalated to FSAs. This multi-level approach streamlines operations, ensures that each issue is addressed at the appropriate skill level, and saves cost by reserving higher-skilled, higher-paid staff for more complex problems.

The breakdown in 2023 was as follows:

Faculty	Number of FSA posts
Faculty of Economic and Management Sciences	1 Permanent 2 UCDG funded
Faculty of Education	1 Permanent
Faculty of Engineering, Built Environment and Information Technology	1 Permanent 3 UCDG funded
Faculty of Health Sciences	1 Permanent 1 UCDG funded
Faculty of Humanities	1 Permanent 1 UCDG funded
Faculty of Law	1 Permanent

Faculty of Natural and Agricultural Sciences	1 Permanent 3,5 UCDG funded
Faculty of Theology and Religion	0,5 Permanent
Faculty of Veterinary Science	1 Permanent

Some of these posts are shared by two people therefore, while we have only 19 posts, we employ 24 FSAs. In 2020, the Senior Photography position (post level 8) was converted to Manager: Academic Advising (post level 7). This position is responsible for supporting the deputy deans: teaching and learning in the supervision of the group of 24 Faculty Student Advisors, as well as coordination of all student support-related activities, including FLY@UP and the Orientation programme.

As discussed previously, the FSAs use student success dashboards to identify and assist at-risk students using students' engagement data and formative assessments. The current Tableau Learning Analytics dashboard provides an overview of student engagement per module, selected high school and programme registration information, and whether they attended any sessions with an FSA. It also houses students' last three months' clickUP (LMS) marks. FSAs can view:

- Students who have improved their marks from month to month.
- Students whose marks have declined from the last month to the present month.
- Students who are not performing well but who have improved in the last month.
- Students performing well but whose marks have declined in the last month.

In addition to the Tableau dashboard, FSAs had to consult the UP portal and use the Learner Case Management System to capture the details of their interventions with students. In 2022, the possibility of acquiring a single system that could offer all these elements was explored. Consequently, in 2023, Anthology REACH was purchased for this purpose and implemented by EI staff. FSAs were included in numerous consultation sessions and underwent in-depth training with Anthology consultants. The system was branded Support@UP and offers both FSAs and students a one-stop support shop. Support@UP allows FSAs to gather full institutional knowledge about a student by incorporating data analytics, surveys, and an option for students to open a support case for any student support need. This will inform FSAs' action plans and the effectiveness of their response to students' needs.

Building on the joint effort between FLY@UP and the FSAs that was piloted in 2022, FLY@UP provided FSAs with exam packs (FLY-branded stationery students need for the exam period) during both exam periods. Feedback from FSAs and students was extremely positive, and FSAs saw greater attendance than before the initiative.

Finally, 2023 saw the title Faculty Student Advisor replaced with "Academic Success Coach". The title "Faculty Student Advisor" (FSA) caused confusion internationally and among students within the UP environment. The title often leads to students thinking that Faculty Student Advising and Faculty Student Administration are the same professions. This confusion is detrimental since the roles of these two professions vary greatly and lead students to have incorrect and unrealistic expectations about the kind of service that can be provided by an FSA. An academic success coach and an academic advisor are two different roles in the field of education that aim to support and guide students in their academic journeys. While both academic success coaches and academic advisors play crucial roles in supporting students, their areas of focus differ. Success coaches concentrate on personal growth and skill development, while advisors focus on helping students navigate their academic paths and meet degree requirements. While there are elements of both advising and coaching in the current FSA practice, the title Academic Success Coach best describes the profession and addresses the confusion caused by the title of Faculty Student Advisor (FSA).

3.6 Peer Advisors

A new initiative in 2021 was the formalisation of peer advising. The primary duties of peer advisors are to assist students with basic advising questions and to serve as a resource to connect students with the FSAs (where applicable) and available campus resources. Peer advisors help undergraduate students by working closely with FSAs and answering common student questions related to the registration and de-registration of modules, degree/module planning, preparation for appointments with professional advisors, etc. The value of peer advising is found in the peer-to-peer student perspective, which often promotes a better understanding of shared academic information; for this reason, peer advisors are a valuable academic resource. They also serve as essential referral sources at UP as they have often been the first point of call for most students. They are easy to relate to and can refer to the FSAs or redirect enquiries to student administration.

FSAs are often inundated with more severe enquiries, such as assisting with personal challenges that impact academic success, motivation, stress, and time management. The peer advisors assist with enquiries such as credit counting, module selection, and timetable information, which are all equally important, but they need training to advise accordingly. In 2022, the peer advisors worked closely with the FLY@UP coordinator, were very involved in the FLY@UP campaign activations and were active on the FLY@UP social media platforms. The peer advisors were briefed before each activation, where it was explained to them what the activation was about and what information to relay to the students when they approached the FLY@UP to stand looking for information. Ensuring that the peer advisors were trained to communicate the correct information and effectively with the students with whom they interacted face-to-face was essential. The peer advisors were also trained when taking on the exciting challenge of doing an Instagram Story Takeover. The social media training involved learning how to use the app, staying on brand for UP, using storytelling tools to keep students engaged, and relaying important information to students (i.e., contact details, where their offices are on campus, exam rules). A few peer advisors were also tasked with hosting monthly meetings, which involved public speaking to the group, tracking meeting minutes, and staying on topic to ensure that meetings ran smoothly.

Peer Advisors are recruited based on their successful response to FSA interventions. We noticed that the best training they can have was their personal experience as students in identifying when they need support and the process of support. Formal training comprised familiarising themselves with all the degrees in the faculty via the UP Yearbooks and reading through the rules and regulations of Faculty Student Administration.
The training of new peer advisors was extended by enrolling them in the custom-created online training module. The topics covered in this module include:

- An overview of peer advising at UP
- Peer advising practice
- Self-management
- Communication
- Stress management
- Leadership skills
- Teamwork
- Setting boundaries
- Motivating students
- Encouraging help-seeking behaviour
- SMART study skills
- Admin duties and responsibilities

3.7 Tutoring

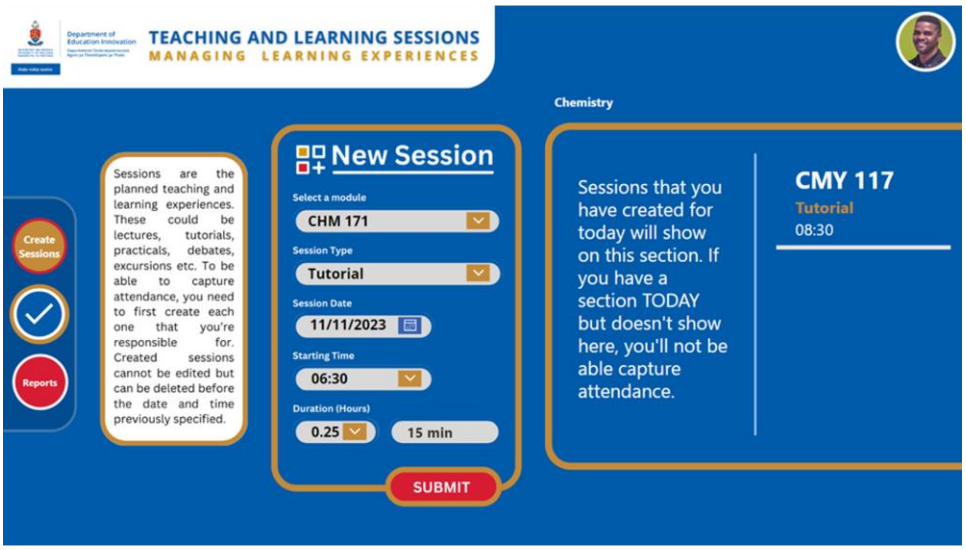
In 2023 a total of 506 teaching support staff completed the institutional tutor training, the figure below shows a faculty breakdown of the number of teaching support staff who completed training. In 2022 it was decided that the institutional tutor training which is online and self-paced would be revised. Previously the training had three themes but after it was revised, two more themes were added. Part of the revision was the intentional inclusion of introductory videos by the tutors. This idea was driven by the need to create a sense of ownership for the tutors. The training has five themes, which are.

1. Introduction to tutoring
2. Tutoring for learning in Higher Education
3. Exploring tutorial spaces
4. Knowing your students
5. Evaluating your tutorial practices

The key outcomes of the training are:

- Tutors should be able to analyse and reflect on the purpose of tutorials in Higher Education in the South African context.
- Understand and reflect on their role as a tutor.
- Reflect and discuss the significance of tutoring for engaged learning.
- Be familiar with a range of teaching and learning approaches that are applicable for tutorial spaces and lastly,
- Understanding the UP context and embrace student diversity and agency.

At the end of the training, tutors are given the opportunity to complete a survey where they give feedback on their experience of the training and comment on the elements that they found useful. A mid-year report was shared with the Deputy Deans of teaching and learning on tutorials. The report included information on the number of teaching support staff that were appointed and paid using the University Capacity Development Grant funds. The report also indicated the modules that the tutors were appointed for. As part of reporting on tutorials and tutors it is also integral that we give an indication of the actual reach of tutorials (the number of students attending tutorials) compared to the number of students who are registered for the modules. The reporting process indicated that there are still gaps in the capturing of tutorial attendance data in faculties. However, from 2021 we had been exploring various electronic platforms that can be utilized by faculty tutor coordinators and tutors to capture tutorial attendance data. In 2023 a tutorial attendance app was developed as a solution to solve the issue of some department not collecting tutorial attendance data due to having large numbers or lacking the capacity. Tutor coordinators and tutors will be supported and trained on how to use the system efficiently. The use of the app will be rolled out in 2024. The system will ensure that we able to report on the Department of Higher Education and Training UCDG funding expenditure and also have an institutional report on tutoring which can be shared with faculties.



In 2023 the deputy director: academic developed introduced the EI managed type II tutorials as a limited academic support service provided to students at high risk of failing or being academically excluded. Type II tutorials were provided to students enrolled in modules with no planned tutorial offering and which had no capacity to handle the administrative load of appointing tutors for a few at-risk students. In 2023 three modules benefited from type II tutorials namely, WTW 164, SWK 122 and EBN 111.

The criteria used to identify students that received academic support through the type II tutorial intervention and modules were as follows:

- Students who self-identify as requiring academic support and validated by FSAs as needing help.
- Students who are flagged as at risk by FSAs and Lecturers and needing intervention in the form of supplemental instruction or one-on-one tutorials.
- Modules with few at-risk students flagged as requiring tutorials by the deputy dean but lacking capacity to offer and manage tutorials.

3.8 Donor programmes' wrap-around student support

EI houses and manages several donor-funded programmes that provide wrap-around support to selected students. These include two programmes funded by the Michael and Susan Dell Foundation (USA), a postgraduate and undergraduate programme funded by the Mastercard Foundation (Canada), and the Ikusasa Student Financial Aid Programme (ISFAP), funded by corporate businesses in South Africa. Wrap-around support refers to the availability of at least one manager for scheduled check-ins, consultations, arranging additional activities, and other support activities. A programme might also make provision for additional staff for counselling and advising.

3.8.1 The Mastercard Foundation Scholars Programme (MCFSP)

In 2023, the University of Pretoria Mastercard Foundation Scholars Program maintained its focus on supporting current Scholars to achieve academic success while simultaneously preparing for the Phase 2 funding period from 2024-2030. As of February 2024, the program had achieved a total enrolment of 396 Scholars since its inception in 2014, with a diverse cohort comprising 235 males, 161 females, 310 internationals, and 4 refugees/displaced Scholars. Among these, 104 Scholars were actively enrolled, and the program boasted an impressive 258 Alumni.

A key highlight of the year was the recruitment outreach trips conducted to Kenya, Malawi, and Uganda to promote the scholarship program for 2024 and 2025 in preparation for Phase 2. These trips generated significant interest from potential Scholars, setting the stage for a promising expansion of the program. Simultaneously, the program intensified its efforts to provide academic support, with targeted interventions for Scholars facing challenges to help them complete their studies on time. By the end of 2023, only two undergraduate Scholars remained in the program, reflecting the program's commitment to ensuring Scholars successfully transition to the next stage of their academic journey.

Recognising the importance of mental health and well-being, the program prioritised psychosocial support for its Scholars. In the second semester alone, 134 counselling sessions were provided, covering a wide range of topics including academic concerns, personal issues, and career transition support. The program also extended support to Scholars facing serious mental health challenges that required hospitalization, demonstrating its dedication to the holistic well-being of its participants.

The year also saw several Scholars participate in international exchange programs, broadening their horizons and gaining exposure to new academic and cultural experiences. Spain emerged as a popular destination for these exchanges. Furthermore, by November 2023, 24 Scholars had secured internships, reflecting the program's commitment to fostering professional development and facilitating successful transitions to the workforce.

Community engagement remained a core pillar of the program, with Scholars taking the lead in organizing impactful initiatives. A notable example was the organization of soup kitchens to provide meals to vulnerable community members, showcasing the Scholars' dedication to giving back and making a positive difference in their communities.

Behind the scenes, the program team worked diligently to lay the groundwork for the launch of Phase 2 in 2024. This included initiating recruitment efforts to attract young people with disabilities, refugees, and internally displaced persons as new target demographics. Staff training and job description reviews were undertaken to ensure the program was well-equipped to support these new cohorts and their unique needs.

Collaborations with partner organizations played a crucial role in the program's success and growth. Partnerships with institutions such as Ashesi University, USIU-Africa, the University of Rwanda, ACN, and UNHCR facilitated the sharing of best practices and the planning of joint initiatives, strengthening the program's impact and reach.

Despite facing challenges related to academic preparedness, strict performance criteria, and immigration hurdles, the University of Pretoria Mastercard Foundation Scholars Program remained steadfast in its commitment to providing comprehensive support to its Scholars. The unwavering dedication of the University of Pretoria and the strong relationships fostered with the Mastercard Foundation and partner institutions emerged as key success factors, enabling the program to navigate challenges and continue empowering young leaders from diverse backgrounds.

As the program looks ahead to Phase 2, it stands poised to build upon the successes and lessons of 2023, ready to welcome new cohorts of Scholars and expand its impact in nurturing the next generation of transformative leaders.

3.8.2 The Michael and Susan Dell Foundation

The Michael and Susan Dell Foundation (MSDF) provides support to two different programmes at the University of Pretoria - The Dell Young Leaders Programme (DYL) and the Sikelela Scholars Programme (SSP). These programmes support and empower low-income students (primarily first-generation

university NSFAS students) to graduate and secure meaningful employment. Katlego Thindisa is the Programme Manager for the Dell Foundation Team at the University. David Thompson, who served as the Program Associate, has left the unit since the end of 2022, replaced by Ms Tebuhleni Nxumalo in 2023.

The Dell Young Leaders Programme delivers strategic, systematic wrap-around support for a selection of NSFAS students (high-potential students from historically and financially disadvantaged schools and communities). The support includes financial (food, books, transport, tuition, allowances, etc.), academic, wellness, and career support. It has also assisted the students in reducing their NSFAS loans by awarding each of them R150,000. The DYL creates a holistic, student-centred academic, situational, wellness, psychosocial, and work-readiness support system. The programme has consistently succeeded, with many students completing their degrees and obtaining employment. By 2022, the programme supported 293 students with a graduation rate (eight years) of 83%, a retention rate of 96%, and a placement rate of 97%.

The Sikelela Scholars Programme leverages the existing University resources and technology to address non-financial barriers to student success. This programme aims to determine if such support could improve student performance and to document how such support could be scaled for the future. However, the programme provides limited academic, financial, wellness, situational, and career support. Awardees receive R150,000 throughout their degree and an emergency travel allowance of R500 per semester. With 279 graduates (in 2022), there has been a 99% retention rate since the programme's inception in 2016. The total number of awards by 2022 came to 747, of which 457 students are still active, and the other 270 have graduated. The Sikelela Scholars Programme is currently being evaluated for potential scalability at the University of Pretoria.

3.8.3 Ikusasa Student Financial Aid Programme (ISFAP)

The Ikusasa Student Financial Aid Programme (ISFAP) currently has 133 active students across the EMS, EBIT, NAS and MbCHB faculties. To date, ISFAP has delivered 155 UP graduates since its launch in 2017. ISFAP focuses on sending a well-rounded graduate into the workplace and this is achieved through hosting various workshops and interventions during the students' undergraduate studies. These include Ethics-, Personal branding - and Stress management workshops. There is also a focus on the student voice and community amongst our students as we believe this is crucial to their academic success. This is done through student led social events. In 2023 we launched the Vespa Skills Programme which teaches first- and second-year students the soft skills that are necessary for academic success. A unique event that was held in 2023, was our May Social where we had a panel of four experts from the relevant fields. Students had the opportunity to ask these experts everything that they have been wondering about regarding life as a professional as well as how to succeed as a student.

4 Research outputs

4.1.1 Publications in Accredited Journals

Groening, Z., Coetzee, C. & Mathabathe, K.C. (2023). Investigating the Influence of an Online Intervention on the Development of High School Chemistry Teachers' PCK about Environmental Sustainability, African Journal of Research in Mathematics, Science and Technology Education, 26:2, 166-180, DOI: 10.1080/18117295.2023.2235104.

Kekana, M., Jordaan, M., Machimana, E., Mooa, R., & Legodi, H. 2023. Students' Voices on How to Educate Communities about the Prevention of COVID-19 Using Robotics and Technological

Innovation: A Transdisciplinary Research Approach. The International Journal of Technologies in Learning 30 (2): 83-102. https://doi.org/10.18848/2327-0144/CGP/v30i02/83-102

4.1.2 Book Chapters

Agherdien, N., Ganas, R., & Hlabane, A.S. 2023. Theorising Being and Becoming Collective and Reflexive Helping Professionals: A CHAT Perspective. In R. Pillay; S. Mkwanazi, & S. Moonsamy. S. Transforming Teaching and Learning Experiences for Helping Professions in Higher Education (pp. 273–286). BRILL. https://doi.org/10.1163/9789004540811_017

Bradley, M.M., Mathibedi, M.F., Phyffer, J. and le Roux, F.R. (2022). Embracing and Reimagining Technology-Enhanced Learning in Public International Law to Generation Z. 1st Edition. In C. Maimela (ed.), Technological innovation (4IR) in law teaching and learning: enhancement or drawback during COVID-19, South Africa, Pretoria: PULP. (pp. 35-57).

Eloff, I., Agostini, E., Dittrich, A & Mathabathe, K.C. (2023). Vignettes of Gender Equality, Wellbeing and Teaching. In: Mayer, C. H., Vanderheiden, E., Braun-Lewensohn, O., Chen, G., Sueda, K., Mangolothi, B., Safdar, S. & Kim, S. (Eds). Women Empowerment for a Sustainable Future World: Transcultural Positive Psychology Perspectives. Springer. https://doi.org/10.1007/978-3-031-25924-1_38

Machimana, E. G., Sefotho, M. M. & Ebersöhn, L. (2022). Benefits of community engagement practice in the context of higher education and rural school partnership: Multi-perspective voices. In E. S., Van Eeden, I. Eloff, & H. Dippenaar (Eds.). Community Engagement Research in South Africa: Methods, Theories, Histories and Practice (pp. 241-259). Van Schaik publishers.

Meintjes, A. (2023). Re-imagining Authentic Online Assessment for Large Classes in a Low-tech Environment. In T. Jaffer, S. Govender & Amp; L. Czerniewicz (Eds)., Learning Design Voices. Available at: https://edtechbooks.org/ldvoices/authentic_online_assessment.

4.1.3 Conference Papers

Byles, H.S., Janse van Vuuren, H.H. and Lemmens, J. (2023). Using technology to extend the reach of the Faculty Student Advisors at UP. Flexible Futures Conference, University of Pretoria, Pretoria, 23 - 24 August 2023.

Israel, V. & Smart. A. 2023. “Implementing the First Year Experience (FYX) in clickUP: a case study of the pilot” paper presented by at the 9th Flexible Futures 2023 conference “Transforming Higher Education for the AI era: embracing flexibility and innovation”, University of Pretoria Hatfield campus on 23 & 24 of August 2023.

Lemmens, J. and Byles, H.S. (2023). Learning Analytics Dashboards for Professional Academic Advisors. Learning Analytics and Knowledge Conference, Arlington, Texas and Online, 15 - 17 March 2023.

Lemmens, J., Janse van Vuuren, H.H. and Majozi, P.C. (2023). High Impact Modules: Where and how [and why should I care]? Flexible Futures Conference, University of Pretoria, Pretoria, 23 - 24 August 2023.

Majozi, P.C., Janse van Vuuren, H.H. and Lemmens, J. (2023). Course Analytics 2.0: Ecosystem to Improve Teaching, Learning and Student Success. Siyaphumelela conference 2023, Wanderers, Johannesburg, 28 - 30 June 2023.

Majozi, P.C., Janse van Vuuren, H.H. and Lemmens, J. (2023). Leveraging RPA to streamline analytics processing. 30th SAAIR Conference 2023, University of Stellenbosch, Cape Town, 23 - 26 October 2023

Mathabathe, K.C. & Majozi, P.C. (2023). Open-source natural language processing (NLP) models as a methodology for understanding the student voice in the context of teaching and learning (workshop). Flexible Futures Conference, University of Pretoria, Pretoria, 23 - 24 August 2023.

Mathabathe, K.C. & Majozi, P.C. (2023). Open-source natural language processing (NLP) models as a methodology for understanding the student voice in the context of teaching and learning. Siyaphumelela conference 2023, Wanderers, Johannesburg, 28 - 30 June 2023.

Scheepers, D. (2023, Nov 22-24) From Resistance to Influence: A Developing Perspective on Change Strategies to Make the Most of EdTech System Implementations. Paper presented at Online Educa 2023, Berlin, Germany.

Smart, A. 2023. "Preparing for a new Learning Management System: a training team perspective (from initiation to before training)". 9th Flexible Futures 2023 conference "Transforming Higher Education for the AI era: embracing flexibility and innovation", University of Pretoria Hatfield campus on 23 & 24 of August 2023.

Smart, A., Van der Walt, J.P. & Carneson, S. 2023. "Student development modules on the Learning Management System (LMS): Enablers, barriers, and readiness." paper presented at Higher Education Learning and Teaching Association of Southern Africa (HELTASA) "(Un)Conference" 24 to 26 October 2023 "Is there 'light at the end of the tunnel'?" Vanderbijlpark Campus, North-West University (NWU), South Africa.

Wilkens, V., & Smart, A. 2023. "Reviewing the flipped classroom implementation in a service module". 9th Flexible Futures 2023 conference "Transforming Higher Education for the AI era: embracing flexibility and innovation", University of Pretoria Hatfield campus on 23 & 24 of August 2023.

4.1.4 Research Reports

Janse van Vuuren, H.H. (2023). Correlation between Gr12 English marks and performance in LST 110 for students studying BVetNurs. Department for Education Innovation. Unpublished resource.

Lemmens, J. (2023). First-year Academic Orientation 2023. Department for Education Innovation. Unpublished resource.

Lemmens, J. (2023). UP Readiness Survey Report 2023. Department for Education Innovation. Unpublished resource.

Lemmens, J. and Janse van Vuuren, H.H. (2023). Review of the FSA support using LCM data: 2020 to 2022. Department for Education Innovation. Unpublished resource.

Strydom, J.F, Loots, S., & Meintjes, A. (2022). Developing an Evidence-Informed Framework to Guide Quality Blended Teaching and Learning in South African Higher Education. Kagisano, 14, 55-92.

4.1.5 Membership of Associations / Research Bodies / International Committees

Machimana, E. G. (2023). Education Association of South Africa (EASA).

Mathabathe, K. C. (2023). Team member of the international Teach4Reach 2.0 collaborative project between the University of Pretoria, University of Innsbruck and University of Vienna.

Nsibande, R. N. (2023) International Society for the Scholarship of Teaching and Learning (Issotl)

4.1.6 External Workshops presented

Jordaan, D. (2022). Pyramid Analytics basic workshop presented for CPUT and VUT. 18 -20 October 2022. Granger Bay Campus (CPUT)

4.1.7 Online articles and magazine publications

Jordaan, M., Machimana, E. G., Mahlangu, L., Matlheketlha, A., Makena, L., Mathebula, C. (2023). Transdisciplinary community engagement seminar. Lentšu la sechaba: The voice of the CE community. Department for Education Innovation, Unit for Community Engagement, University of Pretoria, Summer: December 2023, Vol 19, 1-25.

Scheepers, D. (2023, Nov 6) Adapting to Agile EdTech Development: A Case Study of University of Pretoria's e-Education Team, OEB Insights. https://oeb.global/oeb-insights/adapting-to-agile-edtech-development-a-case-study-of-university-of-pretorias-e-education-team/