DEPARTMENT FOR EDUCATION INNOVATION

Annual Report 2021

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
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Contents

1. Director's report

1.1. Introduction and overview

The Department for Education Innovation (EI) provides vision, training, and support to optimise student learning and success. The Department has a team of experts in the fields of education, assessment, community engagement, instructional design, graphic design, videography, communication technology, educational research, and student academic development. The various sectors collectively contribute to the production of outstanding teaching so that students are supported to succeed in their studies. The Director of the department is Professor Gerrit Stols. The Department is divided into two sub-directorates with their own Deputy Directors, namely, Mr Dolf Jordaan (E-Learning and Media Development), and Dr Kgadi Mathabathe (Academic Development). Below is the structure of the Department for Education Innovation:

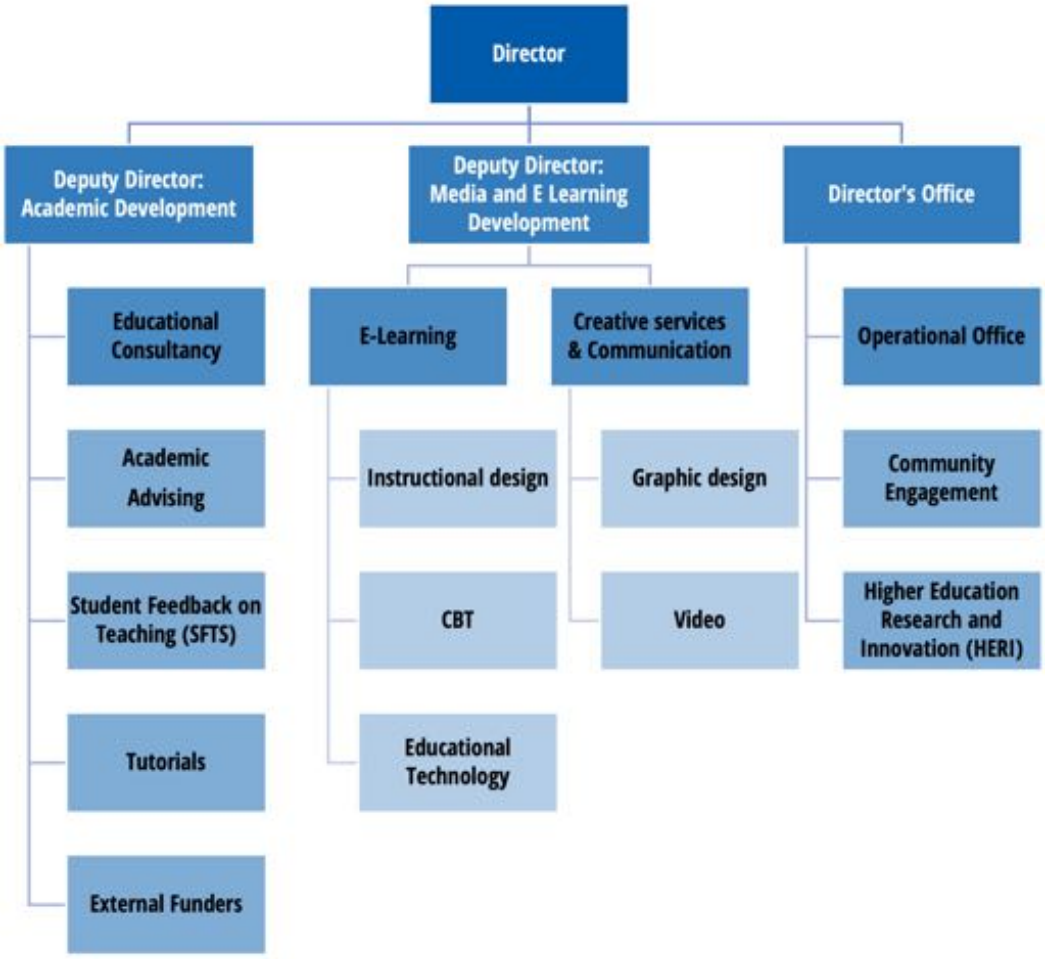


Figure 1: The structure of the Department for Education Innovation

The Unit Heads are Ms Elize de Waal (Operations Office), Mr Almero du Pisani (Creative Studios and Communication Technology), Dr Sanet Haupt (Education Consultancy), Ms Detken Scheepers (E-Education), Dr Juan-Claude Lemmens (Higher Education Research and Innovation), and Ms Gernia van Niekerk (Community Engagement). The figure below presents a visual summary of the goals and work carried out by the EI Department.

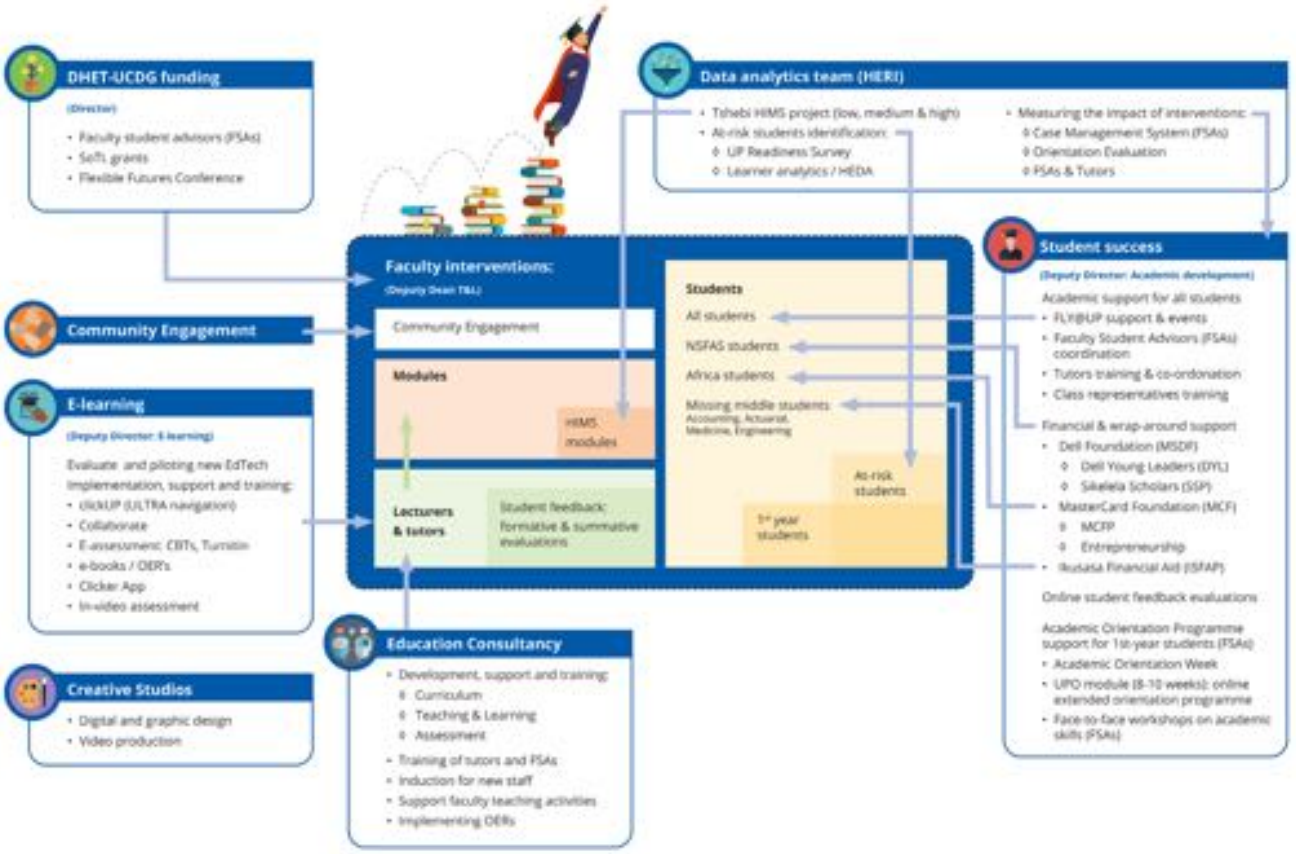


Figure 2: A visual representation of the main work of the Department for Education Innovation

1.2. Teaching and learning in 2021

The Department promotes education excellence and aims to consistently respond to a rapidly evolving society, and ever-changing environment. This is done by embracing the latest, best global practices of integrating Information and Communication Technology (ICT) into teaching, learning and student success. As a result of the COVID-19 pandemic, the University of Pretoria (UP) had to suspend all contact classes from 2 May 2020 and continue with remote teaching and learning during the whole of 2021. The University decided to retain the key elements of its hybrid flipped-learning model, *Teach and Learn: The UP Way* because this model articulates well with remote teaching and learning. It requires extensive non-classroom-based activities for both lecturers and students. The guiding documents used to ensure the continuation of teaching, learning, assessment, as well as optimal student success rates are *TEACH & LEARN The UP Way 2021* and *REMOTE TEACHING The UP Way 2021*. The vast majority of lecturers and students managed to move with confidence and fairly seamlessly into the remote teaching and learning mode. In response to this, the University of Pretoria was ranked as one of the top universities in South Africa by the StuDocu World University Ranking in 2021. The survey gives the students the chance to grade their institutions. Both the *Learn the UP Way* video and the *Learn the UP Way Online* animation won Silvers at the MACE Awards.

The University's flipped-learning methodology (see Figure 3) reinforces the following sequential phases in instructional process:

1. A preparation phase during which students prepare before class;
2. An engagement phase where both the lecturer and students engage during class; and
3. A consolidation phase where students consolidate their knowledge after class.

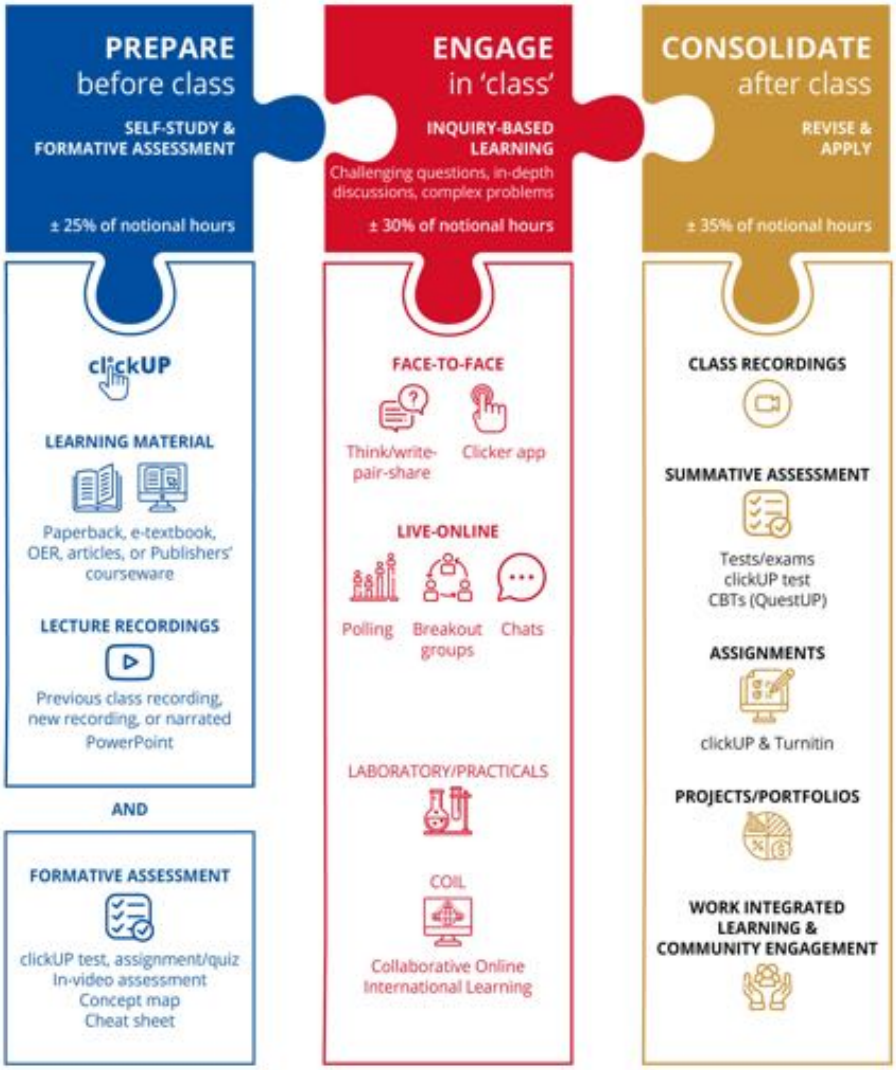


Figure 3: The University's flipped-learning methodology

The UP Study Guide templates required lecturers to provide information to students on how to prepare for each lecture session, as well as to provide comprehensive assessment plans. Another basic requirement for student success is to ensure that all students have access to essential course materials. The lecturers teaching the foundational courses were encouraged to use free Open Educational Resources (OER). Through creating an environment for independent preparation, students were seen to become more self-reliant, as well as more inclined to become successful lifelong learners. Students were, and will continue to be referred to various resources such as textbooks, articles, websites, and videos for this purpose. This equips them with the relevant knowledge to engage actively and meaningfully in class. It is also of great value for students to engage in meaningful assessment activities before each class. Assessment activities take the form of a short clickUP test, in-video assessments, or the creation of a mind map, to name but a few examples. The University of Pretoria's hybrid teaching and learning model offers students the best of both worlds, online and contact, and is designed to enable them to succeed at university and in life beyond university.

The University combines the latest technology to support its teaching and learning methodology and develop scalable, flexible, interactive, and active learning environments. The digital strategy is embedded into a flipped-learning methodology to ensure that students come to class prepared, complete pre-class assessments, engage in class, and consolidate their knowledge after class.

Table 1: The technology available to support the University's hybrid learning

PREPARE before class	ENGAGE in class	CONSOLIDATE after class
Textbook / eBooks	Bb Collaborate	Assessment platforms
Class material	Student response system	Class recordings
OER	AVER 340+ Cameras	Plagiarism software
Videos		Online proctoring
Courseware authoring tools		
H5P in-video assessment		
clickUP - Blackboard Learn (LMS) & Blackboard Mobile		
EvaluationKIT from Watermark		

Many of the technologies rely on Artificial Intelligence (AI) or incorporate AI. The most common AI technologies used in higher education are those aimed at ensuring the integrity of assessments (proctoring and plagiarism detection solutions), and personalising learning. The effective management and use of data are critical because AI requires large sets of reliable data to make meaningful predictions.

The University of Pretoria uses the Blackboard Learn Learning Management System (LMS) - branded as clickUP- and Blackboard Mobile as fundamental technologies to support hybrid learning. The University recently renewed its contract with Blackboard for another five years, beginning in 2021. The University has a long history with Blackboard. In 2019, we moved to a stable Amazon cloud-based SaaS (AWS) environment in Frankfurt. This move reduced downtime as continuous updates can be implemented with zero or minimal downtime. In December 2019, the University enabled Blackboard continuous delivery, automatically updating the system to provide new features quickly. In December 2020, the University implemented Blackboard Ultra Navigation. This upgrade provides students with quick access to the most critical information from all courses. The University uses Blackboard Mobile to enable further student access to their learning material across various devices. Students can thus access content from the Bb app, participate in discussions, participate in virtual Blackboard Collaborate classes, and view their grades. For more detailed information on the 2021 Blackboard usage and implementations, please see Section 5.1.5.

Students are essential participants in improving lecturers' teaching practices, and as such, their feedback is of great value to the lecturer. Summative feedback is often used to evaluate the quality of teaching, and may be used in performance management. EvaluationKIT (Watermark) enables students to provide feedback on the effectiveness and quality of teaching through a single sign-on in the LMS anywhere and from any device, including phones. This platform also allows academic staff and their line managers to develop and accumulate a portfolio of evidence, which can be used for performance management and academic promotion purposes. An electronic lecturer and module evaluation system's function is to ensure that the academic staff are able to engage in reflective practice to gain new insights into their practice, which in turn enhances the standard and quality of teaching.

1.2.1. PREPARE before class

Technology enables us to assess student preparedness in many powerful ways. 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, allowing for students' interactions with the textbooks and their engagement to be tracked. AI driven adaptive learning systems create a personalised learning experience by adapting the content according to students' individual learning needs. This is done based on their responses to questions, tasks, and experiences. Publishers are at the forefront of developing courseware and personalised adaptive learning platforms, e.g. MyLab (Pearson), and Connect (McGraw Hill). Students can also use the Openstax App to access the free Open Educational Resources (OER).

Table 2: Technology available to support students' preparedness for class

PREPARE before class	Technology
Textbook / e-books	Vitalsource platform (all publishers)
OER	Openstax
Videos	YouTube
Courseware	Connect (McGraw-Hill), Mindtap (Cengage), MyLab (Pearson)
Assessment	H5P in-video assessment, Bb test, Bb assignment

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

1.2.2. ENGAGE in class (face-to-face or synchronous online)

Research shows that inquiry-based learning motivates students, stimulates critical thinking, and creates opportunities to develop a deeper understanding of concepts. Inquiry-based learning (i.e. teaching by questioning, not by telling) enables students to think, communicate, and justify their ideas. The latest technological developments allow us to personalise education and promote active learning, even in large classes. A student response system (Clicker app) captures individual students' responses in a class and automatically records the responses (marks) in the clickUP Grade Centre. The TurningPoint Mobile Clicker app allows students to respond to multiple-choice type questions and could be used in any virtual online session (e.g. Blackboard Collaborate), accessed by students from anywhere. The TurningPoint mobile app's use provides lecturers with data about class attendance (with built-in geolocation), student engagement, and student understanding (formative assessment). A summary of the students' responses is also available, and is displayed on the web-enabled device while polling is open. It is now possible for remote students to participate fully in class via live-streaming technologies such as Bb Collaborate. Bb Collaborate is a real-time video conferencing tool that lets you add files, share

applications, and use a virtual whiteboard, as well as chats and polls to interact. The online video platform integrated into clickUP opens in any browser, so students do not have to install any software to join a session. Students can use their Blackboard app or any browser on their mobile phones to join a Collaborate session.

Table 3: Technology available to support students' engagement in class

ENGAGE in class	Technology
Live streaming platform	Bb Collaborate
Streaming hardware	USB Aver 340+ camera
Student response system	TurningPoint mobile clicker solution

The University purchased 200 USB Aver CAM340+ cameras and tripods for lecturers who want to live stream their classes in 2021. This enables lecturers to use Blackboard Collaborate to stream and record the class, allowing students to attend classes face-to-face or virtually.

1.2.3. CONSOLIDATE after class

Creating opportunities for students to reflect, integrate and restructure their knowledge after class is critical. This could include the opportunity to prepare for 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. It is therefore important to make the class recordings available to students on clickUP for 'catch-up' and revision purposes.

Table 4: Technology available to support students' consolidation of knowledge after class

CONSOLIDATE after class	Technology
Assessment platforms	Blackboard assessment tools, Gradescope, Respondus,
Plagiarism detection software	Turnitin
Online proctoring	Proctorio
ePortfolios	Blackboard portfolio tool

The use of 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 students' learning. The assessment in 2021 mainly continued online, but various tools and alternative approaches were used for assessment, as explained in the guideline, *Alternative and Online Assessment The UP Way 2021*.

The University has been using various online assessment tools and approaches. One of these is the Respondus assessment solution, which is a powerful tool for creating and managing exams or tests

printed on paper or published directly to Blackboard. Exams can be created offline by placing questions in a specific format in MSWord. The University uses Blackboard tests for assessments, which are automatically graded, whereafter the students' results are tracked in the Bb Grade Centre. Another option is to use the Blackboard assignments tools, which allow the online submission of assignments. 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 University has used the Questionmark (QM) Perception Computer-Based Testing (CBT) system for many years, but decided to phase out the system in 2021 and move to a new cloud-based solution, Cirrus Assessment. For more detailed information on the Cirrus implementation, please see Section 5.1.7.3. This system will enable 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 up the possibility of writing CBT tests on student laptops in an IT lab or any lecture hall. Laptops could be secured with a lock-down browser to disable students' ability to move between screens while writing tests. It will also allow students to write assessments off-campus.

There are many ways of enhancing the integrity of online assessments, including the use of proctoring systems. Of course, lecturers are encouraged to create assignments that make cheating harder by using more authentic assessments, such as case studies and original application questions. 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.

The marking and grading of tests and papers is time-consuming and requires concentration and attention to detail. Thankfully, there is technological assistance available. 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 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 at once. 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, resulting in improved learning outcomes.

E-rater, another app that is available within 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.

1.3. Student success and support

Around the globe, higher education institutions are under constant pressure to improve student success. However, defining and quantifying student success is a complex endeavour. There are different views on what student success entails. Early definitions only focused on student retention and attrition rates. We know today that student success does not only include the passing of modules and completion of qualifications in minimum time. Both institutions and students must take responsibility and accountability for student success. FLY@UP was created in response to the University's concerns about the time that most students take to complete their first degree. For more detailed information on FLY@UP, please see Section 3.1. The overall module pass rate for UP has increased from 82.5% to 84.6% between 2018 and 2019, and increased again from 84.6% to 88.5% between 2019 and 2020. Overall, the first semester pass rates for 2021 declined as compared to those of 2020. In 2019, the institutional (UP) first semester examination pass rate was 84.10%, which increased to 89.92% in 2020, and then declined to 86.9% in 2021. However, the first-generation student data looks very positive. The pass rate of first-generation students has increased significantly across the last three years: 57.25% in 2019, 68.30% in 2020, and 82.3% in 2021. The improvement in the performance of first-generation students shows that the University's student success initiatives are fruitful.

To improve the quality of teaching and learning, and to enhance student success, the following ongoing initiatives continued online in 2021:

- Faculty Student Advisors (FSAs) offer a vital anchoring function in the faculties to provide a 'safety net' service, advising and referring students for whatever form of support or intervention they require. FSAs continued to support students online by using Bb Collaborate or Google Meet to virtually meet with students. Each FSA was provided with a tablet, headphones, and data.
- The tutors continued with online tutoring via the relevant modules' clickUP courses. Using Bb Collaborate or Google Meet, students can attend a tutorial from anywhere synchronously or log in asynchronously to work through the saved tutorial. To ensure that tutors know how to use clickUP tools (quizzes, discussion tool, and Collaborate) they have to complete an online course using a self-enrol link. Upon successful completion of the online course, tutors receive a letter of participation.
- The High Impact Modules (HIMs) project is an initiative of the Tshebi committee to improve the module success rate of a selected number of modules on the HIMs list. The HIMs project focuses on high impact modules with a pass rate of below 75% and a student enrolment of more than 500. The purpose of the project is to provide a holistic review of the modules with targeted interventions to increase the module success rate. For more detailed information on the HIMS project, please see Section 7.4.

- UP maintains a comprehensive programme to support the academic development of first-year students. The 2021 Academic Orientation Programme consists of the following:
    - A pre-orientation online module (which could be completed using smartphones from 22 February 2021).
    - Online Academic Orientation Week (Faculty-based): 10 to 13 March 2021.
    - A UPO module (faculty-based): an eight-week online extended orientation course that includes various academic and soft skills, and is monitored by the FSAs.

For more detailed information on the Academic Orientation Programme, please see Section 3.4.2. Keeping in mind that there would be a greater focus on the hybrid approach, we felt that students needed a head-start with the relevant technology before lectures started in 2021. Hence, an online pre-orientation course was conceived. This was made available to all provisionally accepted students. We are aware that the participating students would include those from disadvantaged backgrounds with little or no access to laptops and computers, so the pre-orientation online module could also be completed using the Blackboard App on smartphones. The aim of this module is to provide all learners who may become UP students a glimpse of what they may expect from academic life at UP. To enable these students to transition to a hybrid T&L environment, it was aimed that students would also be able to use their phones to engage in our pre-orientation programme from 15 February 2021. Here, they were guided on how to access and use the tools they would encounter at UP. The module included a computer literacy introductory course, which incorporates an introduction to UP's learning management system, clickUP.

1.4. The early identification and support of students

Data is one of the most powerful tools for lecturers and their students to inform, engage, and support student success. All of the data from the various electronic platforms flow into one central system via the Blackboard LMS, except for the Learner Case Management System. Integrating a digital teaching, learning, and student success software package into the LMS means not just connecting applications; it also requires careful planning of the flow of learning and student success data. With this in mind, the University uses Pyramid Analytics software to collect all the data and develop user-friendly student success dashboards for management, lecturers, and students.

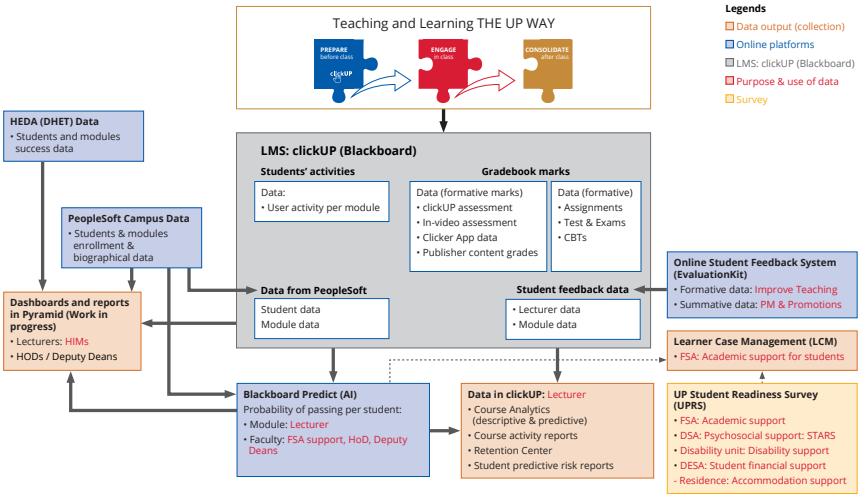


Figure 4: Visual presentation of the learning analytics data flow

Student success-related technologies can be grouped into three categories: identification, information, and support, which is further explored in the table below.

Table 5: Student success-related technologies

Identification	Information	Support
Predictive software	Support information hubs	Enhance accessibility
Analytics software	Dashboards and nudges	Support information hubs
Survey platform	Reports	
	Case management systems	

The University aims to create a more inclusive environment, broaden students' access to learning material, and support students. To achieve this, the University uses Blackboard Ally to enhance digital content for access and learning, and helps institutions to build a more inclusive learning environment. It improves the student experience by helping students control course content with usability, accessibility, and quality in mind.

Table 6: Technology to support student success

Student support	UP platforms
Enhance accessibility	Blackboard Ally
Support information hubs	Blackboard Assist

The primary function of FSAs is to provide co-curricular support and development, specifically, advice on module choice, dropping modules, study skills, time management, stress management and so on. This is offered through workshops and individual appointments. The FSAs use Blackboard Engage to identify students at risk of failing and to support the students. The FSAs use the new online Learner Case Management System to capture their interactions with students electronically. However, the FSAs also refer students with psychological problems for counselling, students with content problems for tutoring, and students with financial difficulties to the Finance department. For students to also control their own needs and contact the many different support services offered by the University, we use Blackboard Assist in clickUP as a central information hub. For more detailed information on the work of the FSAs, please see Section 3.2.

New technologies and AIs create many new opportunities to monitor and enhance student success. The University utilises many adaptive learning solutions from different publishers as part of their instruction methods and assessment practices. Beyond these uses, the Department for Education Innovation also uses AI in its student success initiatives. AI requires large sets of reliable data to extract patterns and to make predictions. Therefore, the effective management and use of data becomes critical. The effective use of data allows the University to use predictive analytics' early alerts to prevent possible future problems, rather than looking backwards and acting after a problem has become apparent. Therefore, the main priority is to develop students' success dashboards based on AI predictions and quality data. The University uses Blackboard Engage (Predict) predictive learning analytics to

identify students at risk of failing. This allows the FSAs to proactively identify and proactively support students who are at risk of failing. It generates predictions on student risk using historical data about student demographics and success from the Student Information System (SIS), as well as activity and grade data from the LMS or clickUP.

Table 7: Technology to identify students that need support

Identification	UP platforms
Predictive software	Blackboard Engage (Predict)
Analytics software	Pyramid Analytics
Survey platform	Qualtrics

The UP Readiness Survey uses Qualtrics to measure students' readiness for university education. Readiness for university education can broadly be defined as the level of preparation of a student (financial, social, and academic engagement) to succeed at a higher education institution. For more detailed information on the UP Readiness Survey, please see Section 7.5. The results are used to identify first-time students in their first year for targeted interventions, such as the peer mentorship programme or academic advising by the FSAs. In addition, the information may also be used to identify and refer students who have indicated financial distress, accommodation challenges, data or device challenges, and a recognised disability to the respective support departments. In general, the results are also used to obtain a better understanding of the profile of the new student cohort.

There are several data functions embedded in clickUP (Blackboard). The first essential requirement is the use of the Bb Grade Centre. The use of the Bb Grade Center allows lecturers to monitor their students' performance using the:

- Performance dashboard (displays all types of user activity in your course);
- Retention center (early warning system: identify at-risk students and send automated messages);
- Course reports (view summaries of course usage); and
- Analytics for Learn report (run different reports for courses that track how students are performing).

Table 8: Technology to capture and provide student data

Student information	UP platforms
Case management systems	IDSC Learner Case Management System.
Dashboards and nudges	Blackboard Retention Centre and dashboards. Pyramid Analytics dashboards.
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 the students within each course. The report allows students to compare their activity and progress with that of their peers in the same course. Each undergraduate course also provides access to Student Risk Reports under the Evaluation in the Course management links. Blackboard Engage (formerly Blackboard Predict) is a student success solution that leverages LMS activity, student biographical data, and advanced analytics to identify at-risk students, making early intervention possible. The instructor report provides an integrated dashboard at the aggregated and individual student levels.

Students must also be able to track their progress. 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. The COVID pandemic highlighted the need for student-focused data to enable students to track their progress.

HERI thus embarked on an exciting new initiative that should foster an evidence-based approach to improving teaching and learning, and to supporting student success. In order to achieve this, we created two Pyramid dashboards that are targeted for deputy deans and heads of departments.

1.5. Professional development and training

Effective student learning requires a professional approach to teaching and staff development. The Department for Education Innovation (EI) provides institution-wide workshops and priority courses to develop the teaching, assessment, and e-learning skills of academic staff members. The aim of continuing the professional development programme is to develop a combination of Technological and Pedagogical Knowledge (TPK) and skills. This is the kind of knowledge required to integrate appropriate technology into teaching while addressing the complex nature of academic knowledge.

The Education Consultancy Unit provides institution-wide priority courses to enhance teaching, learning, and assessment. For more detailed information on the 2021 professional development courses, please see Section 2.1. The University's professional development programme (CPD) is tailor-made to support and develop academics at different career stages, which include:

- An emerging scholar with an interest in following an academic career;
- A newly appointed academic or someone in the early stages of their career; and
- An academic leader and established academic who has developed a significant teaching capacity.

An Academic Induction Programme was developed and implemented for all new full-time and part-time lecturers in 2021. For more detailed information on the 2021 Academic Induction programmes, please see Section 2.1. Effective student learning requires a professional approach to teaching. Therefore, the DHET developed the Framework for Enhancing Academics as University Teachers to support the effective implementation of teaching development in South Africa. UP, in turn, reviewed its approach to teaching and learning. The following courses were offered by the Education Consultancy and the eLearning units.

Table 9: Courses offered by the Education Consultancy

Course	Date	Duration
Academic Induction Programme	9-11 February; 26-28 July	2 days
Developing study guides	24 March; 25 June; 20 August	8:30-11:00
Inquiry-based learning	23 April, 15 Sept	8:30-11:30
Learning theories for the digital age	6 May; 22 July	13:00-15:00
Career portfolio	25 Feb; 8 March; 20 April; 29 July; 20 Oct	2 hours
How learning works	29 April; 25 Aug	1,5 hours
Feedback to students	20 August 2021	1 hour
Open Education Resources (OER)	Self-paced online	n/a
Project-based learning	12 March; 5 May; 31 August; 10 November	9:00-12:00
Curriculum Mapping and Alignment	4 June	9:00-12:30
Planning a learning opportunity	19 May	8:30-12:30
Rubric design	8 April; 11 June; 24 Aug	8:30-12:00
Purposeful questioning	13 April; 21 May; 10 Sept	8:30-11:30
Effective but smart marking	26 March; 30 March; 9 April; 3 Sept; 17 Sept	3 hours
Accountable assessment	16 March; 6 April; 1 June; 18 Aug; 5 Oct	8:30-13:00
Objective assessment	24 March; 16 April; 8 June; 1 Sept; 15 Oct	8:30-12:30
Game-based learning	28 May; 8 September	9:00-13:00

For more detailed information on the 2021 training of the E-Education Unit, please see Section 5.1.1. Lecturers can now also enrol and complete a self-paced online course.

Table 10: E-learning courses

Course	Date	Time
Grade scope	19 May, 2 June, 16 June, 30 June	16:00-17:00
In-Video Assessment (H5P)	18-May, 31-Aug	9:00-11:00
Creating digital lectures	3-Jun, 23 Aug	9:00-16:00
clickUP OVERVIEW*	21-Jun, 1-Nov	8:00-13:00
clickUP CONTENT	22-Jun, 2-Nov	8:00-13:00
clickUP ASSESSMENT	23-Jun, 3-Nov	8:00-13:00
clickUP modalities for participation	24-Jun, 4-Nov	8:00-13:00
clickUP METRICAL	25-Jun, 5-Nov	8:00-13:00
clickUP for administrators	1-Jun	8:00-12:00

Trendy tools for cool lectures	09-Jun, 18-Aug	9:00-13:00
clickUP Grade Center	20-May, 1-Jul, 9-Nov	8:00-13:00
Turnitin	4-Jun, 17-Aug, 16-Nov	8:00-12:00
Turnitin grading and feedback	8-Jun, 20-Aug, 18-Nov	8:00-12:00
Proctorio training	7 April, 9 April, 14 April	14:00-15:00
Gradescope	19 May, 2 June, 16 June, 30 June	16:00-17:00

The E-learning Unit also presented a number of institutional virtual lunch hour sessions in 2021:

- 15 April: Keeping track of student activity in clickUP.
- 11 May: Increasing your online teaching efficiency in clickUP.
- 15 June: Preparation for online examinations.
- 27 July: Good practice to communicate and enhance student engagement in a remote teaching environment.
- 17 Aug: Good practice for creating videos and using Bb Collaborate.
- 16 Nov: Preparation for online examinations.

1.6. Flexible Futures Conference

This conference creates an opportunity for UP and other universities to showcase and share their teaching and learning innovations. The theme of the virtual conference that was organised by EI on 26 and 27 August 2021 was 'Reimaging Teaching and Learning in Higher Education'. The sub themes included:

- Reimagining teaching and learning in higher education;
- Reimagining student success and support in higher education;
- Reimagining assessments in higher education;
- Reimagining teaching and learning to improve students' readiness-for-work and employability;
- Reimagining the use of data and AI to support teaching, learning, and student success;
- Reimagining curriculum design and development in higher education; and
- Reimagining strategies to boost student resilience and wellness in higher education.

The keynote speaker, Professor Mariët Westermann, vice chancellor and chief executive of New York University Abu Dhabi, focused on reimagining teaching and learning in higher education. Professor Emma Ruttkamp-Bloem, Head of the Department of Philosophy at the University of Pretoria, opened the discussion on reimagining the ethical use of AI technology to support teaching and learning. This was followed by a presentation given by Joe Pringle of Amazon Web Services regarding the 'Practical applications of AI and Machine Learning'. Krista Greear, Blackboard Senior Accessibility Strategist, shared a personalised approach to engaging with course content: automating UDL Principles with Blackboard Ally's alternative formats. Alesta Nortje from the Central University of Technology repre-

sented Cengage to reimagine teaching and learning to improve students' readiness-for-work and employability competencies. Besides the keynote presentations, the Deputy Deans Teaching and Learning had a panel discussion chaired by Professor Alta van der Merwe on the future of tertiary teaching and learning.

There were 112 other presentations. A total of 340 people registered for the conference and at any moment during the conference, about 100 to 150 people attended the sessions. Approximately 90% of the registrations were from UP staff, all of whom were sponsored to attend. This was an opportunity to learn and share innovative teaching, learning, assessment methods, and student success interventions, as well as the effective use of educational technology in higher education. The sponsors for this conference included Blackboard, Cengage, Amazon Web Services (AWS), OneConnect, and the DHET's University Capacity Development Programme (UCDP).

1.7. The Scholarship of Teaching and Learning (SoTL) grants

The Scholarship of Teaching and Learning (SoTL) grants are part of the University of Pretoria's University Capacity Development Grant (UCDG) provided by the Department of Higher Education and Training. The purpose of the grants is to promote institutional research to improve teaching and student learning and success. We received 34 applications, 26 of which were granted R 20 000 each in funds. Due to the COVID-19 pandemic, one grant was cancelled. A total of 17 011 students benefited indirectly from the 26 SoTL projects. In accepting the grant, the applicants accept a tacit contract to keep to the activities and expenditure in their applications, and to submit an annual report. Each grantee submitted a progress report at the end of 2021. To determine the impact of these grants, one of the questions asked was: What changes were made in the classroom based upon your findings? The feedback received highlights the significant impact that these grants have had on the lecturers' classrooms and innovative teaching practices.

1.8. AI T&L Think Tank: Teaching & Learning

At the first meeting on 28 May 2021, Professor Emma Ruttkamp-Bloem introduced the topic 'A general introduction to ethical concerns around online student contact', referring to salient aspects of existing research on AI and data ethics policies. She included some references to Proctorio software as a special case. Proctorio ensures online assessment integrity through advanced technologies and data security processes. Professor Ruttkamp-Bloem was also invited as a keynote speaker at the Flexible Futures Conference to talk about AI ethics. At the second AI Think Tank meeting, Dr Marié Hattingh led the discussion about the development of AI chatbots. It should be noted that Dr Marié Hattingh received the 2020 University Teaching and Learning Award for her development of a knowledge conversion platform in the form of a BA Bot in the second year Informatics module to create an environment of continuous learning.

2. Academic development

The Academic Development and Support Department, which is headed by Dr Kgadi Mathabathe, is responsible for providing strategic leadership on the academic development of students and lecturers. This is in support of the University of Pretoria's vision, mission, and strategy, specifically with reference to the University's holistic development and student success focus. As Deputy Director: Academic Development, she is accountable for the following areas of focus within the Department for Education Innovation:

- Education Consultancy;
- FLY@UP and Academic Orientation;
- Student Advising based within faculties with 21 Faculty Student Advisors (FSAs);
- Student Feedback on the Teaching Survey system; and
- Institutional coordination of the teaching assistant programmes, e.g. tutorials.

In addition, Dr Mathabathe provides oversight of the following externally funded programmes:

- The Michael and Susan Dell Foundation (MSDF);
- The Ikusasa Student Financial Aid Programme (ISFAP); and
- The Mastercard Foundation Scholars Programme.

2.1. Education Consultancy

The Education Consultancy (EC) unit, headed by Dr Sanet Haupt, provides strategic leadership and change management of curricula; teaching, learning and assessment innovation; and continuing opportunities for teaching professional development to promote the implementation of a hybrid and inquiry-based approach. An intricate matrix model is followed where each consultant is assigned to a faculty. In the faculties, under the leadership of the Deputy Dean: Teaching and Learning, ECs build relationships with faculties, schools, departments, Teaching and Learning Committees (TLCs), and engage with individual academics in order to deliver on the group's key performance areas. They contribute to updating policy guidelines, procedures, and teaching-related documents of the specific faculty. In their function in EI, ECs are tasked with nurturing, supporting, and developing academics' capabilities in their role as university teachers through teaching and learning advice (consultations), teaching practice (peer) reviews, support material development (OERs, study guides, assessments), and in collaborating through Scholarship of Teaching and Learning (SoTL) projects. Other responsibilities further include providing initial and continuing professional development opportunities for curriculum development, teaching, assessment, and content for institutional teaching support staff development. The professional development opportunities offered include courses that assist academics to build their academic/teaching portfolios, which are required for permanent appointment and application for T&L awards. In this way, academics are recognised and rewarded for their work as university teachers.

2021 was a defining year for the Educational Consultancy unit, one of the flagship entities within the academic development division of the department, as academics at UP needed progressively more assistance to pivot to a changing higher education landscape. The unit lost four of its nine Education

Consultants to retirement and resignation. Filling those positions has been exceptionally challenging as institutions compete for the same small pool of experts. In addition, the resource limitations have necessitated a strategic change in the way in which the unit functions as we moved to a project-based approach rather than a faculty-based approach.

The group manages institutional projects requested by the Vice-Principal: Academic, and they also collaborate to create, implement, monitor, and evaluate teaching-related documents and policies for the University. The consultants strive to specialise in their area of interest through in-depth research, and attending professional development opportunities in their educational fields of mastery. The management of EI projects and initiatives mainly takes place via the EC community of practice, whilst faculty-related involvement is negotiated during scheduled meetings with the relevant Deputy Dean: Teaching and Learning.

The EI Consultative Forum was established in 2020 when a need was identified for broader stakeholder consultation on the implementation of the National Framework for enhancing Academics as University Teachers within UP. The first meetings interrogated the guidance of the framework and what it should achieve at UP. Drawing on the feedback from the discussions of the framework in faculties through forum representatives, the EC group applied for the UCDP grant. The input highlighted a need for funding to develop career-stage appropriate technology to make the unit's development offerings searchable. The ECs received a University Capacity grant as an enabler for further development of Continuous Professional Development (CPD) opportunities for both academics and the consultants. This is seen as extremely appropriate and timely given that the COVID-19 pandemic has challenged the suitability, viability, and sustainability of our teaching and learning operating models, practices, and systems. The second focus area was on: "What does the future of Teaching, Learning and Assessment at UP look like". The forum discussed the way in which UP should reassess and adapt its strategies to survive and thrive after the pandemic. In the latter part of 2021, the forum was requested to evaluate and give input for a questionnaire to determine academics' learning and development needs, and their delivery preferences. This questionnaire will be distributed to all academics in 2022 to enable the unit to review the current offerings. This will further assist in developing a training and development plan that addresses the University's needs, and which is aligned to national strategies/imperatives.

CPD at UP is important as it ensures that academics upskill throughout their careers. It also allows them to adapt to changing circumstances in their environment. The CPD narrative focuses on teaching

to address student success within the UP context. This requires a scholarly and professional approach to teaching, and the delivery of contextually responsive curricula. This was achieved by actioning the imperatives in the National Framework for enhancing Academics as University Teachers, for example, separating attendees at the Academic Induction according to career stage. The framework enables CPD for university teachers, offering development activities across the career continuum of an academic, focusing on pedagogical expertise. The ECs developed and presented various CPD opportunities aimed at different academic career stages. The scope of these CPD offerings included enhancing academics' teaching skills, curriculum development and assessment initiatives. All CPD offerings were offered online during 2021. The registration and evaluation of these courses were embedded in the HR system, which necessitated Heads of Departments to develop and approve development plans for their staff. The evaluation provided by the participants is highly valued, and is continuously used to enhance our offerings. In 2021, our institutional training was completed by 428 academics, whereas 1293 academics attended faculty-specific training. We also completed some training for assistant lecturers and faculty specific tutor training following on the institutional training. It is evident from the numbers that a significant proportion of the academic staff attended professional development opportunities/ activities. Opportunities for academics to access professional development activities are considered a lead indicator for improving the quality of teaching. In this sense, it may be assumed that EI's teaching development activities have had a measure of impact on the quality of teaching at UP. Various other faculty initiatives have been established to promote knowledge production and sharing in university teaching and learning. These initiatives include: Brown Bag lunches, webinars, and sharing resources via faculty-based ClickUP modules. The Education Consultancy Unit offered the following courses in 2021:

1. Academic Induction Programme.
2. Developing study guides.
3. Inquiry-based learning.
4. Learning theories for the digital age.
5. Career portfolio.
6. How learning works.
7. Feedback to students.
8. Open Education Resources (OER).
9. Project-based learning.
10. Curriculum mapping and alignment.
11. Planning a learning opportunity.
12. Rubric design.
13. Purposeful questioning.
14. Effective but smart marking.
15. Accountable assessment.
16. Objective assessment.
17. Game-based learning.
18. Innovil (Assistant lecturer training).
19. A resource on Collaborative Learning was made available.

The flagship of our training is the Academic Induction for all new full-time and part-time lecturers, which was attended by 233 participants in 2021. As part of the teaching and learning requirements, newly appointed staff must complete the UP Teaching and Learning Induction process during the probation period (first year). Therefore, the first opportunity to attend the academic induction was 4-5 March 2021, and the second was 12-13 August 2021. The entire induction process within the span of probation consists of the following:

- Attending a two-day introductory course;
- Completing all the foundational professional development courses (included clickUP courses) as identified by the Department for Education Innovation;
- Receiving peer-evaluated (class visits) at least twice by a peer or Educational Consultant; and
- After completing the induction process, a certificate will be issued.

On the first day, the programme included an institutional perspective on Teaching and Research at UP, presented by the University executive, and ended in faculty group meetings facilitated by each Deputy-Dean: Teaching and Learning in the respective faculties. Academics were also orientated toward the UP teaching and learning model. The second day catered to different career stages, and was divided into early career academics and established academics, each receiving their unique programmes. In 2021, the programme was evaluated by a member of our Consultative Forum, Dr LJ de Jager, a senior lecturer at the Faculty of Education. She found that the programme balanced theoretical and academic content with practical application. Moreover, she mentioned that sections were presented in an interactive and fun way, which added to the effectiveness of the online experience.
Apart from our institutional responsibilities, the unit was also involved in national and international initiatives. Under the auspices of the national framework for enhancing academics as university teachers, national collaborations between universities are encouraged as they nurture, support, and develop academics as university teachers. To this effect the unit engaged with the University of Limpopo on multiple levels. At an international level, the unit was part of the Pedagogical Leadership in Africa (PedaL) initiative.

2.2. Student Feedback on Teaching Survey (SFTS)

The University of Pretoria is committed to the improvement of teaching and learning through dedicated support to lecturers and students. Students particularly are important participants in the improvement of the teaching practices of lecturers, and as such, their feedback on the SFTS is of value to the lecturer. The student feedback system at UP, powered by Watermark Course Evaluations & Surveys, enables students to provide feedback on the SFTS through a single sign-on in clickUP; anywhere and from any device, including phones. The purpose of the evaluation of teaching is to assist lecturers to continuously improve their teaching, learning and assessment practices and the general quality of the modules they teach. Student feedback on the general quality of teaching and learning is regarded as one of the ways in which these practices can improve. Lecturers can also submit up to seven questions to enquire into the specific contexts of their modules.

The implementation of the electronic student feedback system has been successful in view of the response rates that have been achieved and the amount of modules and lecturers that have been involved since the implementation of the pilot in April 2020.

2020 figures

- 10 SFTS projects/cycles were administered to 1833 modules.
- 2927 lecturers were enrolled in 2020 to obtain student feedback.
- 128 521 responses were received out of 334 552 student feedback surveys sent via EvaluationKIT.
- UP's response rate on all the 10 cycles averaged 46.37%.
- Additional context specific questions were added to 53 modules.

2021 figures

- 17 SFTS projects/cycles were administered to1913 modules.
- 2 752 lecturers were enrolled in 2021 to obtain student feedback.
- 106 288 responses were received out of 358 609 student feedback surveys sent via EvaluationKIT.
- UP's response rate on all the 17 cycles averaged 44.13%.

For both 2020 and 2021, UP administered 693 161 student feedback surveys and received 234 809 responses. The average response rate for both years is 42.05%. According to Van Mol (2017), many studies conducted among students report response rates below 20%. Therefore, the average response rate of 42.05% is double that reported by Van Mol (2017).

In 2021 the Student Feedback Office (SFO) facilitated a round-table discussion at the Flexible Futures conference. The purpose of the round -table discussion was to provide an opportunity for lecturers to reflect on the contribution that student feedback has made in their development as practitioners in general and more specifically in the enhancement of their curriculum, teaching and assessment practices. The outcome of this discussion was a consensus view that the student feedback does provide the lecturer with evidence on the aspects of their practice they need to continue or enhance and that it would be difficult to make curriculum changes without it. In addition, some lecturers expressed some challenges that they face with the over-evaluation, especially in team-taught modules and the overemphasis of the summative use of student feedback as opposed to formative use for the enhancement of teaching practice.

2.3. Tutorials

Tutoring is a co-curricular activity directly related to teaching and learning. The aim is to ensure that students have a better understanding of the knowledge and skills in a module, to deepen student learning in a peer-supported environment, which will influence retention and success in that module, and eventual graduation.

The office of Academic Development appointed a Senior Teaching Support Coordinator (institutional tutor coordinator) in 2020. The newly appointed Senior Teaching Support Coordinator (Ms. Esther Mphanda) began her role at the beginning of 2021. Part of the role of the coordinator includes managing and providing oversight of the various teaching support staff programmes. One of the key focus

areas of the coordinator was to operationalize the support of the teaching support staff. The first steps the coordinator followed to achieve this was by establishing networks and collaboration with key role players (Deputy Deans of Teaching and Learning, Faculty tutor coordinators, Education consultants and Instructional designers) in the faculties. In 2021 we continued to facilitate a number of institutional roadshows and one-on-one meetings, which were pivotal in gaining insight into how tutorials are structured throughout the university.

Annual report generated for DHET

A report needs to be generated annually to demonstrate how funds were spent and the level of impact of tutorials on student success. In order to complete the report, we requested the faculty tutor coordinators within the different departments to submit reports on tutoring by way of completing a google at the end of each semester. In this way we could have a comprehensive report per semester to share with the stakeholders. The first semester report was well received at the Tshebi meeting. The report focused on key areas:

- Whether the module is a High Impact Module (a module with high enrolment, that caters for a number of programmes across faculties and has a high dropout rate)
- The number of students enrolled for the module
- The module performance average mark
- The number of tutorial sessions provided in total
- The challenges experienced with tutorials
- The successes experienced with tutorials

Training and Support for teaching support staff in 2021

The training of teaching support staff (tutors, teaching assistants) continued being a priority in 2021. Newly appointed teaching support staff were encouraged to enroll and complete the online university-wide training (UP Tutor Training 2021) which is compulsory. The faculties are also encouraged to commit to providing ongoing subject-specific pedagogical tutor training in addition to the generic training. The Education consultants continued providing additional training in the various faculties.

Faculty	Number of tutors who completed training
EBIT	163
EDU	33
EMS	98
HEALTH	33
HUM	106
LAW	22
NAS	146
THEO	8

VET	23
TOTAL	632

Table 1: Newly appointed tutors who completed the 2021 UP Tutor Training

Since the pivot to online teaching in 2020, tutorials also took place online. It became apparent that there was also a need for teaching support staff to be equipped with the skills that would enable them to facilitate tutorials efficiently online. Additional interactive online training on how to use Blackboard Collaborate to present tutorials was provided on the 21st of April 2021 facilitated by Mr. Dennis Kriel. Training covered a number of topics ranging from creating a session, session settings, attendance statistics to recording a session and making it available to students just to name a few. Overall 97 tutors from six faculties were in attendance. The tutors appreciated the practical and interactive nature of the training which complemented the already available instructions sheets provided by EI.

Supporting Teaching Support Staff with data

With tutorials being conducted online, this meant that the tutors had to make use of data, resulting in additional financial strain for them. The EI department procured 500 data simcards from Cell C and distributed these amongst the 9 faculties to alleviate the expense associated with offering tutorials remotely and online for teaching support staff. The work of the tutorials office continues and includes the exploration of a number of interventions which will make tutorials impactful at UP.

3. Student success

The University recognises that student success requires holistic and integrated support and opportunities for students as they progress through their studies and continue to employment, entrepreneurial activity, or postgraduate study. The implementation of this approach at UP entails the integration and close coordination of the various functions related to student success, namely, student recruitment, enrolment and orientation, financial aid, student accommodation, teaching and learning support and development (academic integration), student affairs (life, health, leadership, psychosocial integration, welfare, and sport and recreation), and campus safety.

Within the student lifecycle approach, student wellbeing and the academic experience are critical. This thus includes appropriate curricula, the quality of teaching that students experience (face-to-face and online), interventions for students 'at risk', and the quality of 'campus life'. This approach also adds emphasis on students taking responsibility for their academic work, social life, and career development. The latter dimension is epitomised by the FLY@UP campaign ('FLY' stands for 'The Finish Line is Yours', where 'yours' is meant to imply students taking responsibility for their own learning.) The initiative intentionally aims to provide students with holistic support and actionable options to succeed in their studies and graduate in the minimum amount of time.

3.1. FLY@UP

At UP, student support remains a priority and, regardless of the challenges posed by the COVID-19 pandemic, the University takes every opportunity to remain a healthy part of the lives of its students. The Finish Line is Yours at the University of Pretoria (FLY@UP) is the tagline of a programme that aims to encourage students to complete their academic qualifications during the stipulated time period. Recently, the FLY@UP programme took its services online by curating an entirely virtual Student Support Day. Dr Hestie Byles, Manager: Academic Advising and FLY@UP, which is located in the Department of Education Innovation, explained that it is important for them to support students on their academic journeys.

The FLY@UP initiative not only wants students to graduate on time, but to graduate to the best of their abilities. This initiative equips students with the necessary knowledge about resources, tips, and skills that they can apply to reach their finish lines, and even after reaching these academic finish lines in terms of work readiness. FLY@UP aims to get students to realise that all of this is possible if they take responsibility for their degrees by putting in the necessary hard work. They also need to reach out to the support services that have been made available to help them on their journey to attaining their degrees. In 2021, the FLY team welcomed two new coordinators, Tayla Jonker and Natalie Sithole, with Dr Hestie Byles continuing to manage the initiative.

The on-campus activations events provided the FLY team the opportunity to interact with students and share the FLY messages. In 2021, we were invited to, and were able to host a total of nine on-campus activations on 31 March, 16 April, 19 May, 17 June, 22 June, 4 November, 8 November, 11 November 2021, and 18 November 2021. The activations were hosted on the Hatfield, Groenkloof, and Prinshof campuses. They were focused on providing stu-

FLY@UP
www.up.ac.za/fly@up

dents with free health screenings, and encouraging students to #stopthespread of #COVID19. Furthermore, there were examination preparation activations held in the second semester, known as #ready4exams, where stationery and exam focused items were handed out to students.

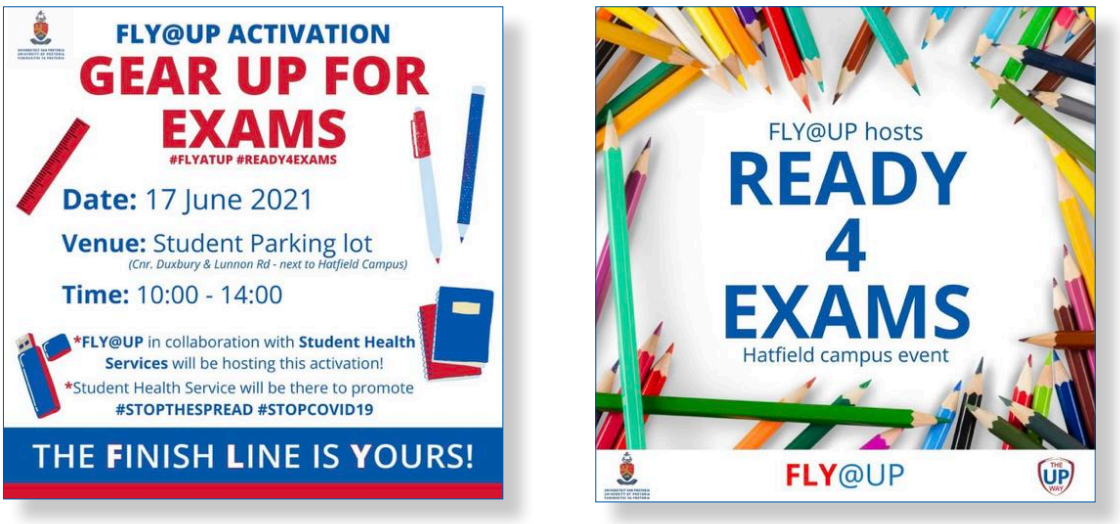


Figure 5: FLY@UP posters for activation events held in 2021

Figure 6: Photos from some of our FLY@UP activation events

Due to the continued COVID-19 pandemic, larger on-campus events were still not possible. In its place, we introduced virtual support fairs on an online platform called Kumospace. FLY@UP was joined by the library; Student Health Services; Student Counselling Unit; Career Services/Ready 4 Work; FSAs; Peer Advisors; Student development/student leadership (TBC); Student Wellness Committee (TBC), and the Centre for Sexuality, AIDS and Gender (CSA&G) (TBC). Each support service designed their own room where they could interact with students, play videos, share links and so forth. The students found the events beneficial as can be seen from the feedback below.

Some students who attended the event commented on how much they enjoyed and got out of it. “I enjoyed the casual nature of the event,” Chrizelda Visser said. “I got to ask questions that usually feel

too silly to ask in an email. It is great how dynamic the event was, with the option of turning your audio/video on or off; you could also look around on your own and at your own pace. The extras in the event such as using the white board made it feel like a video game, which made it so much fun." For Thapelo Legodi, it was the informative nature of the event that captured his attention, "The rooms that I visited were informative, especially Career Services, which focused on having a career plan and can assist in increasing my employability and choosing employers."

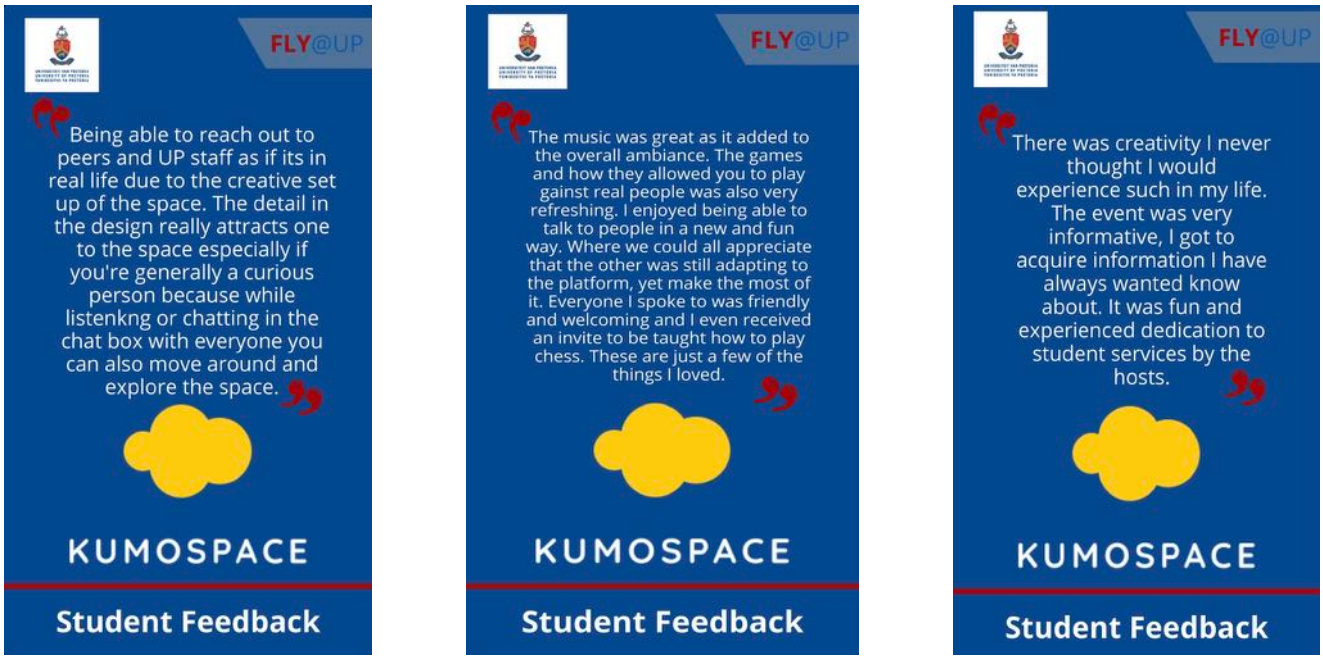


Figure 7: Student feedback from the Kumospace online event

Plan B workshops were held on 28 and 29 April. During these workshops, first-year students who were no longer happy with what they were studying were provided with information to make informed decisions. The sessions focused on talks around losing hope and getting bad marks having a huge impact on a student's future. The importance of exam marks, which will replace Matric results if students want to change to another degree next year, was discussed. Transfer options were discussed with students who were still performing well, but wanted to change degrees. Just over 100 students attended each day; this was by far our biggest turnout yet. In the past, we never had more than 10 attendees.

2021 saw the introduction of the FLY@UP support newsletters, known as the FLY@UP support post. Two newsletters were distributed in 2021. Newsletter 1 showcased all of UP's support structures, and can be found here.

Figure 8: An example from Newsletter 1

Figure 9: An example from Newsletter 2

The second newsletter focused on exam preparation, and offered tips from all the support services. View the second newsletter here.

3.1.1. Social media

FLY@UP launched its social media presence at the end of 2020 by starting a Facebook and Instagram page @flyatup. Over the course of 2021, FLY's Facebook and Instagram pages steadily grew each month. Our Facebook page is now liked by 4 097 people, and followed by 4 221 people, while our Instagram page has a following of 3 301 - both pages are still steadily growing daily. The FLY coordinators implemented: 1) Mondays polls, 2) What can we do to help Wednesdays and 3) Feedback Fridays (based on the polls and reactions on the Wednesday). To view our Instagram page and all the posts and campaigns run during 2021 follow this LINK (click on our highlights to view our 2021 activities).

Support messages from students: Messages received during the 2020 student pledge were used in a campaign to motivate other students.

Figure 10: Student pledges that were used to motivate other students

FLY@UP Exam preparation campaigns: our July exam prep campaign consisted of six short videos with the following themes:

Figure 11: Video themes related to exam prep

Our November campaign consisted of 5 reels (short videos with music), which involved our Student Peer Advisors, that used an upbeat and light-hearted manner to encourage students and motivate them through the second round of exams in 2021. The 5 reels were as follows:

- Dancing into Exams - motivating, uplifting, and encouraging the students at the beginning of the exam period.
- Stay consistent during Exams - reminding students to remain consistent during exams to ensure that they pass.
- Whatever you want, you CAN get - reminding students to put their minds towards the goals they want to achieve, for example, passing a difficult exam.
- Manifest this - a scenario where a student passes an exam after working very hard for it.
- Well Done! You've made it - celebrating the end of exams for 2021 with the students.

Follow this LINK to view the 5 reels on our Instagram page.

3.1.2. FLY@UP and Specsavers

FLY@UP and Specsavers partnered again in 2021 to provide students with free eye testing and glasses. A total of 348 students received brand new spectacles. The stories and pictures from students who received glasses from the FLY@UP and Specsavers partnership were shared on social media.

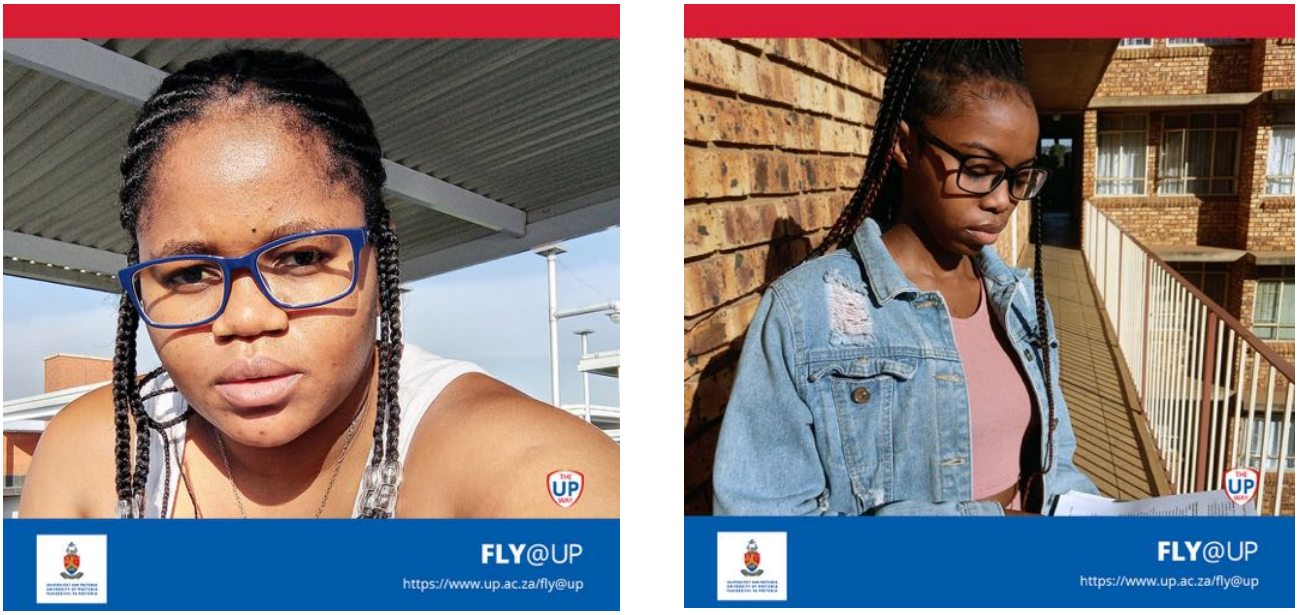


Figure 12: Students who received glasses through our collaboration with Specsavers

3.2. Faculty Student Advisors (FSAs)

EI has oversight over the FSAs, who report to the Deputy Deans: Teaching and Learning in each faculty. UP has nine FSAs who are permanently employed, one for each of the nine faculties. In addition, there are five and a half FSA posts with annual contracts that are funded by the UCDG, and a number of additional contracts separately funded.

Table 11: FSA information

Faculty	Permanent FSA	40 Hour contract appointment	20/25 hour contract appointment
Humanities	1	0	2
NAS	1	2	1
Law	1	0	0
Theology and Religion	0.5	0	0
EMS	1	3	0
Vet Science	1	0	0
Education	1	0	0
Health	1	1	0
EBIT	1	2	2
Mamelodi	0	3	0
	8.5	**10**	**5**

A new system where FSAs could capture sessions and session detail was piloted in 2020, and fully implemented in 2021. The system was designed by IDSC and is colloquially known as the Learner Case Management system or LCM. A total of 23 317 FSA sessions were recorded in 2021.

In addition to the DHET grant that funds the contract FSA positions, a small amount of money was also made available in the form of a Collaboration Grant. This money ensured that most FSAs could attend the Siyaphumelela Conference in 2021, and training could be offered to improve professional development and the practice of advising at UP.

3.3. Peer advisors

In 2021, the three-year DHET grant that funds the contract FSAs was extended to provide for the appointment of peer advisors. During the course of 2021, the following peer advisors were appointed.

Table 12: Peer advisors per department

Faculty	Peer advisor(s) per faculty
Humanities	2
NAS	2
Law	1
Theology and Religion	1
EMS	2
Vet Science	1

Education	22
Health	0
EBIT	3
Mamelodi	1

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/or with general campus resources. Peer advisors will assist undergraduate students by working closely with FSAs, and answering common student questions related to the registration and deregistration of modules, degree/module planning, as well as preparation for appointments with professional advisors etc.
The role of the peer advisors is to:

- Assist the FSAs in facilitating workshops and capturing workshop attendance.
- Act as the first point of contact for advising support for students.
- Schedule advising appointments for students via electronic calendars.
- Advise students with straightforward questions related to add/drop deadlines, module and faculty queries.
- Provide proper referrals to campus resources.
- Assist FSAs with sending selected emails.

3.4. Orientation of first-year students

At the University of Pretoria, the orientation of first-year students is considered a critical success factor in attaining Goal 1 of the University's 2017–2021 strategy, i.e. to increase access, throughput, and success. The Academic Orientation Programme for the first-year students is an academic programme that falls under the DVC Academic, Professor Duncan, and is organised by the Department for Education Innovation. In order to enhance the impact of the 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 orientation week incorporates the FLY@UP campaign, which focuses on the incoming cohort of students' minimum time to completion of their degrees. The development of the Academic Orientation Programme was placed in the context of the four stages in the student life cycle, namely, connection, entry, progress, and completion (Rassen et al., 2013).

Figure 13: Details of the four stages of the student life cycle

In the past, the Academic Orientation Programme was placed between Step 2 (entry) and Step 3 (progress) where the face-to-face orientation week was seen as a means of assisting students to progress through university. Due to COVID-19, the plans for the 2021 Orientation programme focused its sights on a hybrid model where a limited number of faculties at a time would be allowed on campus. These plans were negotiated with faculties, and at the close of the 2020 academic year, all arrangements were in place to start the hybrid orientation on 01 March 2021. At this stage, the plan was to have two faculties at a time physically present on campus with no more than one hundred individuals in a lecture venue, and no more than 250 students in an open air venue. Towards the middle of January 2021, the decision was made to move the orientation to being completely online.

The Academic Orientation Programme (https://www.up.ac.za/orientation) comprises the following:

- Pre-orientation online module Towards becoming a UP Student' could be completed using a smartphone if a laptop was not available;
- Online Academic Orientation Week (Faculty-based): 10 to 13 March 2021; and
- UPO module (faculty-based): eight-week online extended orientation course which includes various academic and soft skills, and is monitored by the FSAs.

3.4.1. Pre-orientation

Keeping in mind that there would be a greater focus on the hybrid approach, we felt that students needed a head-start with the technology before the lectures started in 2021. Hence an online pre-orientation course was conceived. This was made available to all provisionally accepted students. We are aware that the participating students would include those from disadvantaged backgrounds with little or no access to laptops and computers, so we ensured that the pre-orientation online module could also be completed using the Blackboard App on smartphones. The aim of this module is to provide all learners who may become UP students a glimpse into what they may expect from academic life at UP. The first part of the module consisted of an introductory computer literacy component, which included an introduction to UP's LMS, ClickUP.

This introductory computer course was customised based on each student's feedback, and delivered on one of the following three levels: for 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 Orientation team, and regular nudges were to be sent to students who were not progressing satisfactorily.

The second unit of pre-orientation is called 'Skills to support your academics'. This unit consists of three parts:

- Part 1: Academic reading;
- Part 2: Academic writing; and
- Part 3: 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, and so forth.
Feedback on the 2021 Pre-orientation module:

Table 13: Do you feel that the Computer Confidence unit prepared you for using UP's online learning platform, clickUP?

Yes	77.88%
No	4.456%
Not sure	17.50%
Unanswered	0.163%

Table 14: Will you be able to use the skills that you encountered to support your academics?

Absolutely	85.163%
Not at all	0.271%
Perhaps	14.402%
Unanswered	0.163%

Table 15: Do you now feel more confident to handle your money?

Yes	90.489%
No	2.554%
Not sure	6.739%
Unanswered	0.217%

Other feedback:

- A very informative module on preparing for tertiary level education. Indeed very beneficial. Thank you UP!
- It was extremely helpful to obtain real world information and guidance
- It was beneficial. Good preparation for the coming academic year.
- This module prepares and helps first year in the transitioning. It does not only talk about academics, but also about things that happens in a country and life in general helping one to be very prepare. This module helped financially, physically, and academically.
- It was helpful, especially since school does not teach us about taxes or budgeting. It was a relief to finally gain some knowledge about it.
- This module opened my eyes to the hidden requirements of studying further in university. It was extremely beneficial because I now know how to read, write, and use my money in my first year of studying in the University of Pretoria.
- Working through these online units and seeing how easy the online platform is to navigate really has eased my anxiety around operating online. I feel a lot more confident about classes and working through the semester online now. Thank you!!!
- It was very helpful and boosted my skills towards working with a computer, thank you!

3.4.2. The Online Academic Orientation Programme

During the 2021 December recess, the country moved back to Level 3 lockdown, which made it impractical to have sessions with only 50 participants in a session. We did not have sufficient academic staff to facilitate double the amount of planned sessions. As a result, the programme was taken back to the drawing board to conceptualise a fully online programme.

We worked closely with both the registration and the VC's Welcome Day teams so that the activities would be seamless for the students. Having decided on the format, intensive meetings were rearranged with faculties from the beginning of February in order to get buy-in from both academic and administrative staff. They were required to present their topics via either videos or live presentations. Using videos implied the involvement of professionals in order to maintain the face-to-face standards

of the past. The staff members were put under pressure to produce their videos within two weeks. This was a near impossible task for most faculties, hence the pressure in the last two weeks of planning. In the final instance, we received video links less than 20 hours before implementation of the online programme. In total, there were 810 sessions to be uploaded to the 50 groups of programmes. 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.

The current Academic Orientation Programme for the 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 the students. Collectively, this gives first-year students a TASTE of UP.

Table 16: The respective sessions that make up a TASTE of UP

Session titles	What each session comprises
Transitions@UP:	• UP readiness survey; • STARS mentorship programme; • Work readiness; and • Faculty houses.
Advice and Academic Support@UP:	• FSAs; • Faculty administration (Timetable explanation and programme information); and • Library.
Support@UP:	• Student counselling services; • Student health services; • Gender based violence; • Anti-discrimination; • Disability Unit; • Security.
Technology@UP:	• UPO; • ClickUP; and • Learn the UP WAY.
Expectations@UP:	• Academic integrity; • Faculty information sessions; and • Discipline competences.

UP Mobile App Orientation Persona: EI has worked in collaboration with the UP Mobile app developer to add a new persona to the existing UP Mobile app. The Orientation 2021 persona allows students, for the duration of the Orientation, to access the different faculty programmes and provides an interactive campus map. A welcome message will be sent the day before orientation, with follow up messages on subsequent days.

Campus Tour Guide App: this app can be used by students to navigate their way around campus while getting information about selected buildings relevant to their faculty. The app can be downloaded here: http://onelink.to/uptourguide on any Android or Apple device. A web-based campus environment is also available should students not be able to access campus grounds. The web-based campus simulates the real campus, and a smartphone can still be used to scan relevant buildings on the web campus.

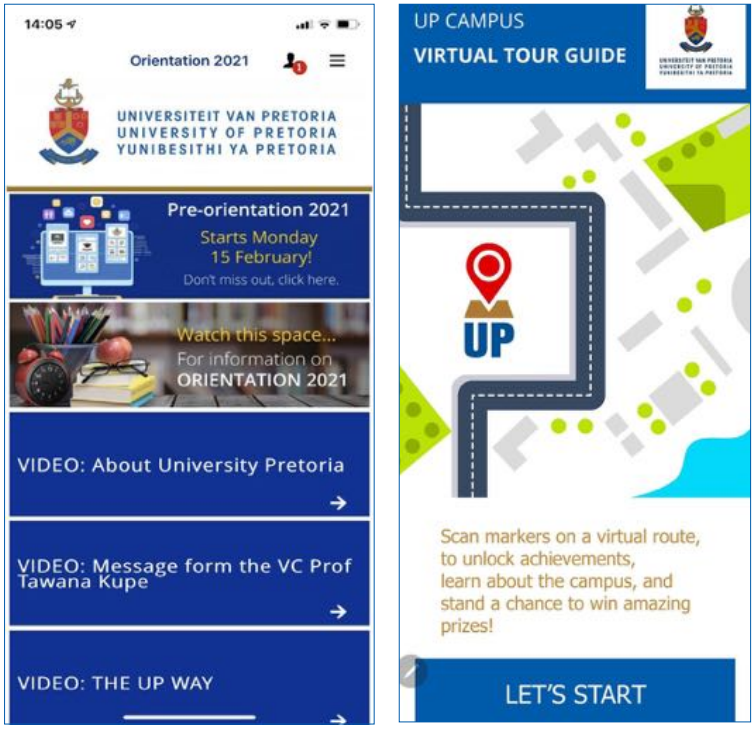


Figure 14: Examples of the UP Mobile App Orientation Persona and the Campus Tour Guide App

Table 17: Attendance of the Online Academic Orientation week

Faculty	Enrolment	Attendance day 1	Attendance day 2	Attendance day 3	Average percentage
Humanities	1158	582	741	820	61.69
NAS	1593	1233	1242	1035	73.45
LAW	689	454	474	496	68.89
Theology and Religion	96	64	47	41	52.78
EMS	1662	1178	1165	1160	70.26
Vet*	133	325	269	245	210.28
Education	1102	572	692	643	57.68
Health Sciences	586	500	489	452	81.97
EBIT	1755	1240	1291	1295	72.67
Mamelodi	687	386	497	523	68.22
Average attendance	9461	6534	6907	6710	71.00

Orientation 2021 Feedback:

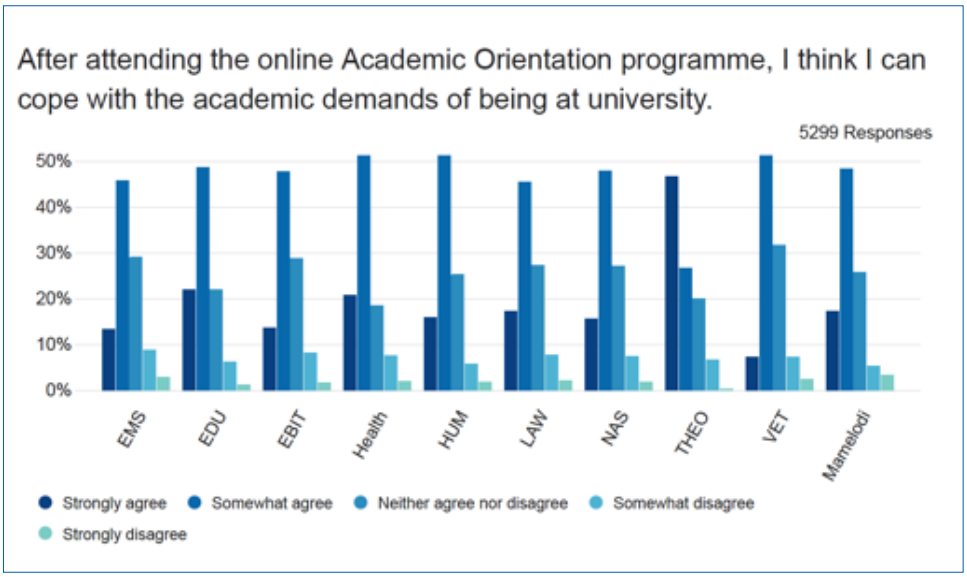


Figure 15: Feedback regarding coping with the demands of University life

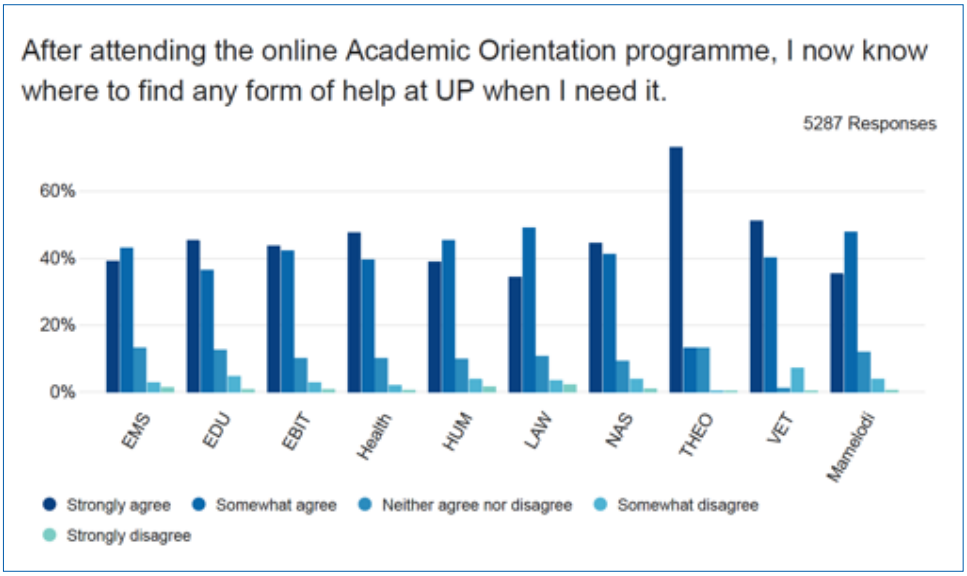


Figure 16: Feedback regarding finding forms of help at UP

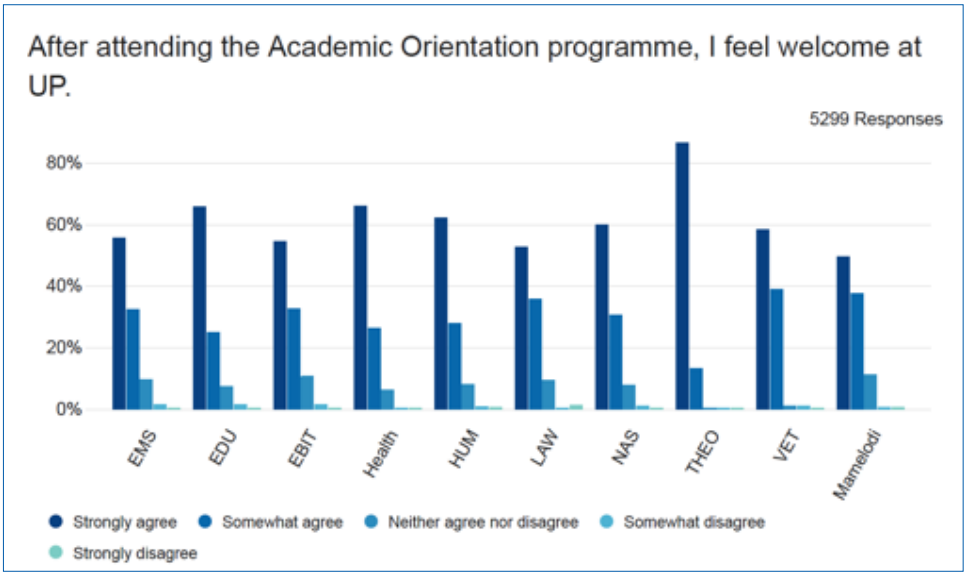


Figure 17: Feedback regarding feeling welcome at UP

3.4.3. UPO modules: eight-week online extended orientation programme

In addition to the one-week academic orientation, all students are required to complete an eight-week online module (UPO), which is an extension of the orientation programme. Students started their online extended orientation through UPO during the orientation week and continued with the module for another seven weeks. As part of the campaign is to enable students to complete their degrees in the minimum amount of time (FLY@UP), Dr Byles also developed and co-ordinated the UPO module, and continues to do so. The topics covered weekly include FSAs' contact details and the details of other resources, time management and goal setting, academic reading and writing, note taking, study methods, and examination preparation. The UP Readiness Survey was also 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 also boosts their academic performance.

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

- Introduction/orientation;
- Let's go – course choices and your FSA;
- Get real – set your goals and manage your time;
- Get down to academic (reading and writing) business;
- Get going – engaging with class and studying effectively;
- Take a break, fill up;
- I can – success stories; and
- Examination preparation and stress management.

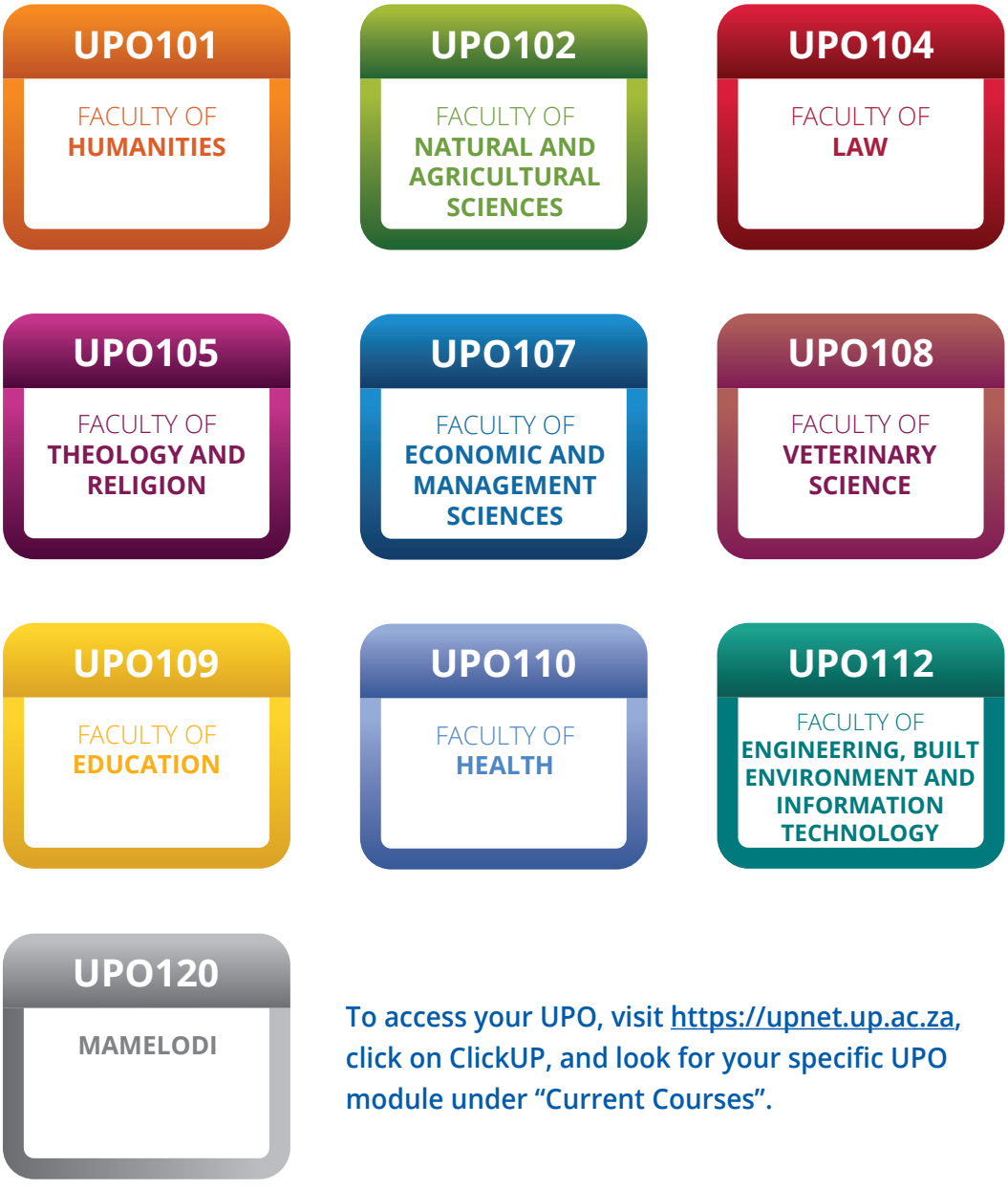
Within the UPO, it was mandatory that all first-year students attended at least one of the weekly face-to-face (F-2-F) workshops presented. The table below shows the UPO pass rate percentage per faculty and an overall pass rate of **85.5%** for 2021.

Table 18: UPO pass rates

Module Code	Faculty	Students enrolled	Students passed	Pass %
UPO101	Hum	1375	1196	87.0
UPO102	NAS	1338	1204	90.0

UPO104	Law	745	646	86.7
UPO105	Theol & Rel	138	107	77.5
UPO107	EMS	1715	1474	85.9
UPO108	Vet Science	393		0
UPO109	Education	1408	1176	83.5
UPO110	Health Sciences	521	472	90.6
UPO112	EBIT	1854	1562	84.3
UPO120	Mamelodi	814	686	84.3
	Average			**85.5**

Each faculty has its own UPO, as can be seen below:



To access your UPO, visit https://upnet.up.ac.za, click on ClickUP, and look for your specific UPO module under "Current Courses".

4. Donor programmes

EI houses and manages several donor-funded programmes that provide support to selected students. These include two programmes funded by the Michael and Susan Dell Foundation (US), a postgraduate and undergraduate programme funded by the Mastercard Foundation (Canada), and, most recently, the Ikusasa Student Financial Aid Programme funded by corporate business in South Africa.

4.1. 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). Since 2012, the Foundation has provided a selection of NSFAS students with wrap-around support. It has also assisted them to reduce their NSFAS loans by awarding each student with an amount of R150 000. The Dell Young Leaders Programme has consistently seen success with a high percentage of students completing their degrees and obtaining employment. The Foundation's second programme, the Sikelela Scholars Programme, began in 2016 and also provides wrap-around support to students. The aim of this programme was to determine if such support could improve the performance of students and to document how such support could be scaled for the future.

4.1.1. The Dell Young Leaders Programme

Programme Team:
Mr. Katlego Thindisa (Program Manager), Mr. David Thompson (Programme Associate)

Launched in 2012 at UP, the Dell Young Leaders Programme continues to deliver strategic, systematic support for high potential students from historically and financially disadvantaged schools and communities. The focus of the DYL model has always been its broad wrap-around support, which is provided to students to address the barriers to and challenges of graduating and securing employment. The DYL programme that was designed to, and is centred around creating a holistic, student- centred system of academic, situational, wellness, psychosocial, and work readiness support. As such, the pro-

gramme has, over the years, improved and enhanced its offering through the employment of technology in line with direct student-facing interventions. With success benchmarks set at 80% for graduation rates, and 100% employment rate after graduation, the DYL Programme aims to position itself as a high impact flagship programme.

Despite the continuing impact of COVID-19 on the 2021 academic calendar, and the uncertainties it gave rise to, the Dell Young Leaders programme at UP continued to thrive. At the commencement of the 2021 academic year, the programme welcomed 53 students to its Alumni Community, 52 of whom were placed in further studies or employment within three months after graduating.

During 2021, all student support was provided by means of online meetings or telephonic engagement by the programme team. Each quarter, all Dell Young Leaders completed an online check-in survey allowing the programme team to identify students who may be experiencing difficulties, or who may be identified as being at risk. The programme focused on academic, financial, and situational concerns, and provided direct support to students where necessary.

Through these processes, more than 250 one on one consultations were held with students who were identified as being at risk for academic reasons or for situational reasons. In such cases, referrals were made to the Student Counselling Unit for psychological support related to anxiety, stress management, loss and bereavement, and other psychological concerns.

The vast majority of student developments, engagements, workshops, and events took place online. However, where possible, key events took place in person (University COVID protocols observed) to ensure as full an experience for the students as possible.

In 2021, the DYL programme managed to effectively launch two cohorts due to the impact and uncertainties created by COVID-19 in 2020 specifically, thus the Foundation delayed the selection of the 2020 cohort until November 2020. This resulted in the programme

launching their support and holding special launch events for two cohorts during the 2021 academic year. The programme therefore grew by 120 students during the course of 2021. The 2020 cohort was launched in March, and the 2021 cohort was launched in October 2021. The launch of the 2021 cohort was a great milestone for the programme at UP as it was its 10th cohort since the inception of the programme in 2012.

As part of the continued program growth and development of its student support model, the Michael & Susan Dell Foundation introduced the role of Student Success Interns in 2021. This created the opportunity for two of their successful graduates to secure meaningful employment through which they could grow their work experience and skill set. This further gave them the opportunity to simultaneously give back to the programme and to positively impact the lives of Dell Young Leaders and Sikelela Scholar students.

This pilot internship programme was so successful that the foundation has approved the continuation of the programme, as well as increasing the number of interns to three for the 2022 academic year. Dell Young Leaders 2021 Wrap-Around support includes the following *financial support*:

- *Swipe Cards fund allocations (1st and 2nd Semester):* additional food and books funds support was made available to all active undergraduate students through allocations to their programme allocated swipe cards. The total value for support provided to students through food and books swipe card funds was in excess of R 1 198 500.
- *Transport funds (1st and 2nd Semester):* in each of the two semesters, an allocation of R500 was made available to students for travelling purposes related to academic activities or personal emergencies where students needed support to cover travelling costs. We have seen an increase in requests and usage of transport funds, particularly amongst Health Science and Education students that need support to travel to various places for their practicals.
- *Scholarship Spending:* the program continued to provide support on a need analysis basis per student. Scholarship funds were used in 2021 to cover various costs, including tuition, academic projects costs, campus residential and private accommodation costs, as well as subsistence costs (meals and living allowances for private accommodation students). The total funds disbursed by the University's Financial Aid department for 2021 costs of attendance amount to R2 507 795,81.

Dell Young Leaders 2021 wrap-around support includes *academic support*:

- The introduction of scaled masterclasses support: the programme negotiated with external tutor service providers for preferential rates, which allowed pre-emptive support to be provided to students registered for high risk modules (modules identified by the programme through performance analytics of previously registered Dell Young Leaders, as well as modules with very high numbers of students registered). This took the form of scheduled contact sessions focused on the core competencies for the modules identified. Instead of waiting for and offering support only to students who identified as being at risk for the module, this offering was made available to all students registered for the module. Throughout the 2021 academic year, a total of 32 modules were identified and master class sessions were completed.
- In addition to these masterclass offerings, the programme held Academic Writing Workshops, as well as a Learning Community Event, which focused on exam preparation skills.
- Introduction of the *2nd Year Success Programme*: given the delay in support provision to the 2020 cohort of Dell Young Leaders, the team developed a programme specifically aimed at engaging with this new cohort of students, and providing them with tailored support ranging from alumni mentor sessions to skills development workshops targeting specific academic skills to support the transition to second year.

The Dell Young Leaders Wellness Interventions include a range of wellness events that were held online to ensure that we could continue to provide students with the opportunity to engage in community, develop skills, and focus on overall wellbeing. The events held included the following:

- Wellness Activation and Welcome back event – presented by fitness influencer.
- Mind Power Session – focused on mental health.
- Knowing Nutrition – presented by a qualified nutritionist.
- Wellness Round Tables – opportunities for students to engage with peers on wellness-related topics.
- Burnout prevention.
- Motivation.
- Resilience.

Students who attended the events completed surveys, with over 90% of the students providing positive feedback and high ratings for the events. All of the students who participated in the wellness events were awarded with branded gear as incentives. As part of the Department of Health's national vaccine roll-out plan, as well as the University's drive to get as many individuals as possible vaccinated, a communication drive was initiated by the programme to encourage all Dell Young Leaders to take up the opportunity to register and get vaccinated. All students who presented the programme with their proof of vaccination were awarded with health vouchers.

Dell Young Leaders 2021 Wrap-Around support includes *Career support, Alumni engagement,* and *a Mentorship Programme.* In upskilling, preparing, and supporting students for the workplace, various interventions and support continue to be implemented. These include training and development initiatives

and interventions, data allocation for virtual interviews, travelling funds to interviews, financial support for professional body fees, and workplace transition costs. The following events took place in 2021:

- Final Year Bootcamp for 2021 Final Year Students – this aimed to kickstart the thought process related to preparing for the transition from studies to the workplace.
- Careers Symposium – this focused on "Tell your Story", which refers to how to convey your story effectively in an interview.

Support interventions for active undergraduate students included:

- Curriculum Vitae (CV) support.
- Developed and introduced in 2021 - a series of targeted careers tasks in line with the progress of a student in their degree focused on getting students to think about what they can be doing to develop their career awareness; career preparation; development of skills and gaining of experience; as well as the development of a professional CV.

The DYL Alumni Community programme launched in 2020 has proven to be a success. A series of Alumni Development and Engagement Events were held in 2021. These were hosted by Employer partners and 'senior alumni' focusing on topics relevant to alumni in the workplace. This has resulted in the Online Peer Learning Community being established, which we hope to see grow in the future.

4.1.2. The Sikelela Scholars Programme

Programme Team:
Mr. Katlego Thindisa (Program Manager), Ms. Sihle Nontshokweni (Programme Associate)

The Sikelela Scholars Programme (SSP) was launched in 2016 as a pioneering effort to leverage existing resources and technology in order to address non-financial barriers to student success. The programme is a university completion programme that offers student support. This is critical in easing the transition from high school to university, driving students' progress towards graduation, and preparing students for the world of work.

2021 marked six years since the programme was launched at the University of Pretoria. Reviews and reflections going into the 2021 academic year were done on SSP's performance against the original strategic intent of the intervention to understand the programme's impact, identify lessons, and chart a meaningful way forward. With 162 graduates to date, including the current Miss South Africa, Lalela Mswane, there has been a 99.5% retention rate since the inception of the programme in 2016. SSP has proven that it represents a scalable solution to improved student throughput through its innovative and cost-effective operating model. It offers students an integrated support centre, simplifies the process of seeking help, and aggregates the issues that disadvantaged students encounter to offer some efficiencies in solving these.

Going into 2021, the Dell Young Leaders and Sikelela Scholars Program were set to grow with the intake of the 2021 cohorts, with DYL selecting an additional 60 students and SSP an additional 150


students. In SSP, this intake took the programme to 558 active students, and the total number of active students on MSDF supported programmes at UP to 809 students. While benefiting from the student support learning and experience gained through the DYL, 2021 presented the opportunity to review the staffing model. This was done to ensure that the programmes could effectively serve the total active student body, leading to the introduction of the Student Success Interns in 2021.

The University's leadership also identified an opportunity to consolidate the university facing responsibilities for DYL and SSP to create improved communication, data flow, and stakeholder management between UP and the foundation's programmes (the foundation supported this recommendation). Mr. Katlego Thindisa took over the management of the Michael & Susan Dell Foundation programmes at the University of Pretoria.

The new staffing model presented the opportunity to align student support offerings closer to those of the DYL Wrap-Around support model. This was done while maintaining lower costs in running the SSP while still achieving further scalability as part of the programme's vision.

Through this staffing model, the Sikelela Scholars Program continued to thrive in 2021, with students leveraging wrap-around support in the form of academic-, financial-, situational-, and career-related support.

The Sikelela Scholars 2021 wrap-around support includes the following *financial support:*

- *Swipe Cards fund allocations (1st and 2nd Semester):* food and books funds support was made available to all active undergraduate students through allocations to their programme allocated swipe cards. The total value for support provided to students through food and books swipe card funds was in excess of R 2 250 000.
- *Transport funds (1st and 2nd Semester):* 2021 marked the introduction of the transport funds support offering to the Sikelela Scholars. In each of the two semesters, an allocation of R500 was made available to students for travelling purposes related to academic activities or personal emergencies where students needed support to cover travelling costs.
- *Discretionary financial support - financial barriers to success:* the programme continued to provide support on a need analysis basis for SSP students who were permitted to proceed with their studies in 2021, but had financial holds on their accounts due to various reasons. Through interest funds generated from the Dell Young Leaders Scholarships, four students

were supported to cover historic debt, allowing them to register for the 2021 academic year and be retained as students at the University of Pretoria.

The Sikelela Scholars 2021 wrap-around support includes *academic support*:

- Introduction of scaled masterclasses support – pre-emptive support was provided to students registered for high risk modules. This took the form of scheduled contact sessions focused on the core competencies for the modules identified. Instead of waiting for and offering support only to students who were identified as being at risk for the module, this offering was made available to all students registered for the module.
- In addition to these masterclass offerings, the programme held Academic Writing Workshops, as well as a Learning Community Event, which focused on exam preparation skills.
- Academic support in excess of R 218 618,60 was offered to active undergraduate SSP students in 2021.

The Sikelela Scholars wellness offerings include a range of wellness events and support offerings similar to those offered to Dell Young Leaders. These were held online to ensure that we could continue to provide students with the opportunity to engage in community, develop skills, and focus on overall wellbeing. The surveys completed by the students showed that over 85% of the students gave high ratings for the events, with 100% of the students noting that they would be interested in attending future wellness events. All of the participants were awarded with branded SSP gear as incentives. As part of Department of Health's national vaccine roll-out plan, as well as the University's drive to get as many individuals as possible vaccinated, a communication drive was initiated by the programme to encourage all Sikelela Scholars to take the opportunity to register and get vaccinated. All students who provided the programme with their proof of vaccination were awarded with health vouchers.

As part of aligning the MSDF wrap-around support models, introductions were brought created for Sikelela Scholars in upskilling, preparing, and supporting the workplace. Interventions and support in 2021 included training and development, Curriculum Vitae (CV) support, data allocation for virtual interviews, and travelling funds support for in-person interviews. The following events took place in 2021:

- Final Year Bootcamp for 2021 Final-Year Students – this aimed to kickstart the thought process related to preparing for the transition from studies to the workplace.
- Careers Symposium – this focused on "Tell your Story", referring to how to convey your story effectively in an interview.

4.2. Ikusasa Student Financial Aid Programme (ISFAP)

The inclusion of the 2021 cohort in the ISFAP@UP programme brought the number of ISFAP grant recipients to a total of 247. In 2021, ISFAP renewed its commitment to funding missing middle students at UP by entering a Memorandum of Understanding for the next three years, 2022 to 2024. This ensured job security for the programme managers for the next three years.

Several events set the tone for the 2021 academic year. The first-year launch function was held virtually to welcome the new cohort. All of the attending students received an Uber eats voucher as a celebratory meal for the event. Mo Malele joined as the motivational speaker, with a personal message from the DVC: Academic, Professor Norman Duncan and the Deputy Director: Academic, Dr Kgadi Mathabathe. A hoodie and laptop distribution event was held for the 2020 and 2021 student cohorts. It was a great opportunity for the programme managers and students to connect and meet face to face for the first time. Each of the 60 graduates who graduated in 2020 and 2021 received a R1000 Takealot voucher to get them work ready. ISFAP provided all of the students with data to lessen the expense associated with online learning. The opening of student residences in 2021 also meant that students experienced fewer challenges with internet connectivity, and would be in an environment that is conducive to learning.

The signature feature of the ISFAP is the wrap-around support students receive on an ongoing basis throughout the year. For 2021, the wrap-around support included the following interventions:

- A dedicated psychologist for all ISFAP students: The major foci in 2021 were stress management and mental health.
- Weekly learning communities now called 'Grow sessions': Weekly Growth Sessions are completely student led. The students are encouraged to follow a 'teach to learn' approach during the Growth Sessions, where each student got an opportunity to teach their peers a part of the topic under discussion. Twenty percent of the Growth Sessions are also spent on social time where students share how it is going, and encourage and support each other.
- Mentorship by alumni - mentors were allocated to students upon request, and the first ISFAP Alumni group was established to assist students who needed guidance from recent graduates. Mentors also received a Mugg & Bean voucher to take out their mentees for coffee.
- Seven Habits workshops held by one of the programme managers for the third-year students (Habits 1-3) and final-year students (Habits 4-5).
- Quarterly group check-in sessions were held by programme managers to focus on student wellness and the importance of taking care of yourself.
- Individual tutor sessions provided for students who require additional support beyond the learning community sessions.
- One-on-one sessions with students regarding their academic performance, with specific

follow up sessions with students who are at risk of failing to place them on the watchlist for monitoring.

- Welcome back to second semester and the end of year/pre-exam get together sessions with programme managers.

In addition to the support provided by the programme managers, the students were also encouraged to leverage the wrap-around support provided by the University, such as workshops and consultations with the FSAs.

- Some of the challenges highlighted by the students and the programme managers included:
- Online fatigue - students were observed to be longing for face-to-face interaction and support. The online workshops were convenient and functional, but they still lacked the human connection that is needed by students.
- The process of finalising the new cohort for 2021 took longer. The first years thus joined the programme very late in the year and could not benefit from interventions until May.

Figure 18: Photos depicting the hoodie distribution event

Despite navigating a challenging year, the programme managers constantly identified and implemented innovative ways of keeping in touch with the students and keeping them engaged. These included:

- Video calls, sending gifs in WhatsApp groups, using memes and humour to break the ice and form relationships where we could not meet personally.
- Meeting up with students where possible, for example, conducting some drive-bys to the residences with sanitizer packs and laminated motivational posters
- Students who were willing to commit to the attendance of tutor classes were allocated to tutor groups. This created a space where tutor classes were close to a 100% attendance. Students could not randomly join these tutor groups without committing from the start of the semester.

4.3. The Mastercard Foundation Scholars Programme (MCFSP)

In its eighth year of a 10 year partnership with UP, the Mastercard Foundation Scholarship Programme (MCFSP) continues to offer scholarships to high-achieving African students interested in studying at undergraduate or postgraduate levels at the University. The Foundation targets academically talented yet economically disadvantaged young people in Africa. It specifically targets students who will contribute to the transformation of the continent 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.

Due to the COVID-19 pandemic challenges, some of the 2020 academic year programmes at UP were carried over into 2021. Mastercard Foundation Scholars were also affected as a result. Their academic programmes were completed in February 2021. The 2021 academic year commenced on the 4th of January 2021, and lectures began on the 15th of March 2021.

4.3.1. The MCFSP recruitment

Twenty-seven new 2021 postgraduate cohort members from the 2020 recruitment drive countries were accepted in five faculties (Engineering, Built and Information Technology (EBIT); Economic and Management Sciences (EMS); Humanities; Law; and Natural and Agricultural Sciences (NAS)) at UP. Of the 27, 12 are pursuing Master's and fifteen Honours degree programmes. In addition, 14 scholars from the programme's previous cohorts transitioned to Honours degree programmes, and another eleven to Master's degree programmes. There were 52 new postgraduate scholars for the 2021 academic year in the programme, comprising 30 males and 22 females. Of the 27 new recruits, 23 came from the Rest of Africa (ROA) region, and four scholars from the SADC region. The countries represented in this cohort include Burundi, Cameroon, Ghana, Kenya, Malawi, Nigeria, the Republic of the Congo, Reunion, South Africa, South Sudan, Tanzania, Uganda, and Zimbabwe. The countries of Burundi, the Republic of the Congo, and Reunion were represented in the programme for the first time since the programme's inception at UP. Sadly, two scholars from this cohort had to defer their admission to the 2022 academic year due to visa and health challenges. Throughout the 2021 academic year, all scholars received wrap-around support, which included:

- Tuition as per qualification;
- Medical aid;
- Accommodation in a University residence;
- Meals;
- Prescribed books;
- Stationery and printing;
- Winter allowance;
- Monthly stipend; and
- Travel.

In addition to making sure that the scholars complete their studies in the minimum amount of time, the programme team provides therapeutic, psychosocial, and academic support.

4.3.2. The MCFSP orientation

Upon arrival in South Africa, the new 2021 cohort recruits were collected from their various drop-off zones in Pretoria and transported to the orientation venue to participate in the orientation programme. COVID-19 protocols and regulations were observed at the orientation venue to ensure the safety and wellbeing of all present. The new recruits were invited, along with the transitioning Honours recruits from the previous cohorts, to the 2021 orientation. Each of the scholars received a laptop, a settling in allowance, and a welcome pack, which contained toiletries, bedding, SIM cards for phones, and COVID-19 essentials (face masks and sanitisers), among other basic needs, to enable them to settle in South Africa. The first part of the orientation programme organised by the programme team took place off campus, at the Capital Hotel in Pretoria, on the 25th and 26th of February 2021.

4.3.3. MCFSP programme launch

Addressing the new and transitioning recipients of the scholarship, UP Vice-Chancellor and Principal, Professor Tawana Kupe, said that students must take responsibility for their studies and have an inquisitive mind while in this programme:

> *Be innovative, creative and think critically about topical issues. Also remember to practice the core values of UP and MCFSP, which are excellence, relevance, accountability, responsibility, commitment, integrity, pride, humility, and fairness. What is good about this Program is that it is pan-African; it aims to train transformational leaders who will support the sustainable development of the African continent.*

Figure 19: New and transitioning recipients of the MCFSP scholarship

Dr Grace Ramafi, MCFSP Programme Manager at UP, advised recipients to work hard academically and maintain excellent results, "The University is an enabling environment with many opportunities at your disposal, which can open doors for you in the future. Expand your knowledge and engage with others." One of the new recruits, Chioma Amaechi from Nigeria, who is studying towards a Master's degree in public management and policy, said, "It is a privilege and an honour to be part of this programme and I am excited. This means I am a step closer to realising my dreams. I feel that I was selected to make a difference."

4.3.4. Academic progress

Due to the continuing COVID-19 challenges, not all scholars were accepted back at the University residences. This was done in line with the COVID-19 protocols regarding the number of scholars permitted to be present at the university. One hundred and thirty-five of the current 146 scholars registered for the 2021 academic year in the programme are back on campus, with 11 scholars (two undergraduates and nine postgraduates) studying from home. All Scholars were supported virtually and, where needed, physical contact was allowed, with COVID-19 protocols always being observed.

The 2021 Honours cohort was handed over from Dr. Efe Isike to Ms. Bonolo Letshufi (Undergraduate Coordinator). This was due to the decreasing number of undergraduates under the support of Ms. Letshufi. There are 36 undergraduates in the programme, with 135 post-graduates. As the ten-year Programme Agreement is slowly drawing near to its end in 2023, the number of undergraduate scholars remaining in the programme has been tremendously reduced from the original 102 scholars. This was the case as some transitioned to postgraduate programmes, while others opted to find employment after completing their degree programmes. The last undergraduate recruitment was conducted in 2019 when the programme satisfied its 102, as per the ten-year Programme Agreement.

During the individual consultation session held at the beginning of March 2021, the remaining 34 scholars requested further extensions to enable them to complete their programmes.

A survey was administered virtually on the 3rd of June 2021 to ascertain the various challenges that the postgraduate scholars had experienced with virtual learning. The major findings from the survey indicated that they had experienced:

- Delayed and discouraging feedback from their supervisors; and
- Having limited time to carry out their research due to the various constraints brought on by the pandemic.

The team concurred and came together to support these scholars, granting an additional three months' extension, which ended in July 2021. Scholars were requested to submit a motivation from their supervisors stating where they were with their research; a research plan of what was left to be done, and how this would be done in the stipulated time. This also affirmed their commitment to completing their academic activities during the extension periods agreed upon. These issues were addressed by the coordinator virtually. The Master's scholars are divided into 3 levels based on their year of admission into the programme. These are: the Extension Master's cohort; the 2020 Master's cohort; and the 2021 cohort. The academic progress of these scholars is discussed below. Out of the 34 extension scholars, 25 have completed their degree, and the nine left are currently in the final stages of their research. They are being monitored by the coordinator. Three postgraduate scholars at Honours level also applied for an extension. Two of these have completed and transitioned to Master's level, while one is busy with a year-long module and will only complete it at the end of the year. This scholar is considered to be an at-risk scholar, and is monitored frequently.

4.3.5. Academic counselling

Academic counselling sessions focused on academic skills development and consultation around matters such as time management, planning, organisation skills, goal-setting, self-motivation, and revision strategies. During the months of October and November, sessions were dedicated to examination stress and test-taking skills and the building of scholars' academic confidence. During the month of December, scholars who had failed examinations also reached out for debriefing and support. These scholars were referred to their academic coordinators to discuss the way forward, and to plan to sit for supplementary and/or special examinations. Remarkably, given the fact that many examinations took place online, scholars who were experiencing significant exam stress and panic during an exam were able to reach out to the psychologist for support and encouragement (an occurrence which would not have been possible in normal examination situations). Scholars were also encouraged to trust themselves and what they had learnt, and to reflect on the answers they provided. This afforded them some perspective and peace of mind that they were indeed answering the questions posed in a meaningful manner. In the end, they were able to submit the paper and passed the examination.

Certain trends that were noted during the third and fourth quarters included: 1) Tendencies towards procrastination were addressed fairly frequently with academic skills development, and 2) Coping strategies to deal with academic stress and academic load, as these often precede procrastination or avoidance of academic work. It was also emphasised that it is important and valuable to consult with the lecturers, tutors, and academic coordinators on time. A few scholars reported academic depression due to poorer than anticipated results, which can also result in academic anxiety. These sessions were typically addressed in a client-centred manner, looking for examples of academic successes and instances of overcoming obstacles or challenges in the scholars' academic histories. Academic stress was also frequently reported and addressed by considering the purpose of stress and how to use stress as a motivator to mobilise rather than paralyse a person. Writing and research skills support was also provided to postgraduate scholars in terms of formulating arguments and breaking down tasks when doing literature reviews. This support also informed them on how to access their dedicated information specialist at the library to assist them in conducting adequate literature searches. Lastly, a few sessions were dedicated to the student-supervisor relationship, as well as working effectively in collaboration with fellow group members.

Two scholars deferred their studies to 2022, and are now in the process of applying to be reinstated to study in the 2022 academic year. They have experienced some administrative issues with their faculties. One of the scholars neglected to apply on time, while the other needed to motivate his re-registration to continue with his academic programme. The psychologist and undergraduate academic coordinator contacted the respective faculties. The psychologist wrote motivational letters and emails, and consulted with faculty administration to advocate for the scholars. As a result, both have been readmitted to their respective degree programmes for 2022.

4.3.6. Psychosocial support

Therapy sessions were aimed at supporting scholars facing a range of concerns. A number of scholars sought bereavement counselling. Scholars were also supported in terms of psychological and emotional difficulties, including mood difficulties, social anxiety and panic attacks, adjustment difficulties,

personal development and transitioning to work, and managing work conflict and poor relationships in the workplace, as well as within the family.

Other scholars were supported in terms of health-related matters and medical emergencies, including:

- Chronic back pain: the scholar was referred to a biokeneticist who provides services free of charge at the High Performance Centre to all registered students at UP. The scholar reported major improvements as a result of the therapy they received.
- Heart problems: a scholar was admitted to Zuid Afrikaans Hospital in Muckleneuk (a suburb bordering Hatfield) to undergo a series of special investigations, including a cardiac angiogram. She was supported emotionally during her hospitalisation, as well as during the period following her discharge. Support of this scholar is still ongoing.
- Another scholar was admitted to two separate facilities, the ICU at Louis Pasteur Hospital following a negative reaction to medication, as well as gastroenteritis. The scholar has recovered from the acute illness and is continuing his recovery process in his home country with the support of his family. The primary reason for the deferment of his studies was due to him already missing a few weeks of the second semester, which would have placed him at an academic disadvantage. He is continuing with psychotherapy on a bi-weekly basis, and the psychologist remains in contact with the scholar's father to monitor his progress and to offer further support.
- On the 16th of September, a scholar gave birth to a healthy baby boy. The scholar reached out to the psychologist at the onset of labour, and was supported throughout her hospitalisation. There were also follow-up sessions to monitor her adjustment to being home with her new-born baby; mother and child are doing well. She was also supported in preparing for her flight home with an infant. She has informed the team that she arrived home safely.
- COVID-19 support: a number of scholars tested positive for COVID-19 during the year. They were provided with emotional support. They also received support from the rest of the programme team.

One scholar was supported following a mugging incident. She was seen for a number of sessions (six in total), and on three occasions, Brain Working Recursive Therapy (BWRT) was utilised to address the trauma and to attempt to prevent the onset of Post-Traumatic Stress (PTS). The scholar reported doing much better and has been able to effectively resume normal day-to-day activities within her environment.

Support for programme alumni continued throughout the year in the form of assistance with transitioning to the world of work, managing difficult work relationships, and transitioning to further studies (PhD). Another alumnus reached out for bereavement counselling.

4.3.7. Community engagement

On the 28th of August 2021, Mastercard Foundation scholars, through their representatives, organised and carried out a clothing donation drive. This was done as a way of attesting to the Mastercard Foundation's core values: raising a generation of leaders who will identify problems in society and bring solutions. We identified and communicated with two areas in our vicinity to which we could donate

in Pretoria, an orphanage in Sunnyside (Peas in a Pod) and the PEN Centre for the elderly homeless (Arcadia, Loftus).

Peas in a Pod is a specialist house of safety, started by Dr Annali Swanepoel, specialising in abused girls from the ages of two to 18. PEN is a non-profit organisation that serves vulnerable communities in the inner city of Tshwane. It serves as a bridge between the vulnerable and those who are supporters. Scholars and the Mastercard Foundation management were asked to donate clothing, money (a minimum of R50 per person), or toiletries three weeks before the event. We set times for the collection of the donations until the final day of collection, which was on 27 August 2021. The representatives sorted the clothes according to sizes (teenagers and the elders), and cleaned and packaged them. We also asked for the leftovers of the scholars' welcome packs from the Mastercard Foundation management, which included toiletries such as sanitary pads, soap, body lotion and toothpaste.

The clothes that would fit teenagers were taken to Peas in a Pod, together with the toiletries, while the clothes suitable for the elderly were taken to the PEN Centre. The donated money amounted to R884. Of this amount, R120 was used to buy packaging bags and washing powder for clothes. The remaining R764 was given to the orphanage as a food voucher. Due to the COVID-19 pandemic restrictions, only 10 Scholars (including reps) joined the donation handover to the recipients.

4.3.8. Scholar-led events

The first, and hopefully first of many, Mastercard debates for scholars was organised. After creating all the marketing content, the response was incredibly positive, with many scholars signing up to participate. All participants were trained by Victor Ngungu and Zainab Olaitan, who also invited the Dean of the Law Faculty, the Head of the Student Law Review, and a member of the Mastercard Foundation Scholarship Programme team in Canada to attend. The debate was well attended, with scholars from other Mastercard Foundation universities attending. There were more than 70 attendees. All of the participants were awarded certificates and prizes for participating to encourage other scholars to participate in future. The Scholar Council rep presented the debate to the other council reps, and Canada management. The future plan is to extend the event to all Mastercard partner universities to make it an annual event to promote collaboration and networking among partner institutions.

After listening to the scholars, the Events Committee approached management with a proposal to start hoodie sales. Once approved, an affordable supplier was found, the graphic design was submitted, and advertising and the collection of orders from scholars could start. Once 50 orders had been reached, the supplier produced all the hoodies, and they could be distributed to the scholars. A total of 50 hoodies were ordered at R300 each, and 50 hoodies were delivered in white, black, and grey.

5. E-learning and Media Development

Mr Dolf Jordaan is the Deputy Director: E-Learning and Media Development. As a result, he is involved at a high level in successfully implementing the hybrid model of teaching and learning. He plays a leading role within the University at a strategic level in moving the University forward in a virtual learning and assessment environment. The details included in the E-learning and Media Development and Creative Studios section aim to reflect the contribution that both groups made to support academic staff in 2021.

5.1. E-Education

The E-Education group is managed by Ms Detken Scheepers, and comprises e-learning project managers, Instructional Designers (IDs), computer-based testing assistants, and a clickUP help desk officer. Staff members are distributed across the Hatfield, Onderstepoort, and Prinshof campuses to support the use of e-learning.

Two vacancies in the e-education group were filled with the appointment of Ms M Thukane as Sr Instructional Designer to support the Faculty of Natural and Agricultural Sciences. Mr D Tive was also appointed as an Instructional Designer for the Faculty of Economic and Management Sciences. Mr. P Mthembu resigned effective 1 October 2021.

A number of staff members in the e-education group fell ill with the COVID-19 virus or lost close family members in 2021 to the pandemic. Two staff members underwent operations that led to extended periods of sick leave. The group thus relied on the support of two contractors, namely, Mrs Estelle Drysdale and Ms Marinda Steyn, during 2021 to continue with their high service delivery.

5.1.1. Continuing academic development

The E-Education group employs various strategies to develop lecturers' autonomy in the use of institutional e-education systems. Different formats of continuous professional development are foundational to this approach. We present priority courses, faculty or departmental training sessions based on requests, as well as individual just-in-time training.

5.1.1.1 Priority training courses

All priority training was presented online during 2021. The self-paced online courses remained available for lecturers. The QuestUP courses were only presented in November to train lecturers in the use of the newly implemented QuestUP 2.0 system. The training team improved their efforts in the following ways:

- In January, they adapted all contact training courses to be presented in a synchronous online format. The team had to provide extra support to lecturers with login and other technical problems with the use of breakout groups during the sessions. They also answered questions from the participants in the Chat area of Blackboard Collaborate. This was necessary as online

support and training proved to be very difficult as the presenters could not see the progress of the participants as they completed the clickUP activities.

- The implementation of new technologies with the same names as two of our courses created confusion. Therefore, we changed the name of the clickUP Assist course to clickUP for Administrators, and the clickUP Collaboration course was renamed to clickUP Modalities for participation. The name changes resulted in updates to the training PowerPoints, handouts, and online courses.
- In the second semester, the team unbundled the 'Creating digital lectures' course into three separate courses, namely, the Narrated ppt, In-video assessment, and Bb Collaborate courses. These three courses better address the needs of lecturers as they now only need to attend the course relevant to their needs.
- The team completed an information booklet for 2021 courses.
- An additional three clickUP workshops (Overview, Content, and Assessment) were presented in March for new lecturers.

Table 19: Number of participants who completed e-education courses in 2021

Course	Contact Session Attendees	Dates	Average Feedback score	Online Course Completions	Total no. of completions
Creating digital lecturers/narrated PPT	54	5/02, 3/06, 23/08	.99	21	75
Bb Collaborate	55	11/08, 12/10	.97	12	67
Trendy tools for cool Lectures	52	23/02, 09/06, 10/08	.93	**	52
Overview	82	8/02, 9/03, 21/06, 29/10	.98	17	99
Content	69	9/02, 10/03, 22/06, 9/11	.98	22	91
Assessment	70	10/02, 11/03, 23/06, 3/11	.94	17	87
Collaboration/modalities for participation	42	11/02, 24/06, 4/11	.91	4	46
Metrical	42	12/02, 25/06, 5/11	.98	5	47
In-video Assessment	51	2/02, 3/03, 18/05, 31/08	.84	10	61
Turnitin	63	25/02, 04/06 17/08, 16/11	.98	13	76

Tii: Grading and feedback	50	26/02, 08/06 20/08, 18/11	.96	7	57
clickUP Grade Center	79	24/02, 20/05 1/07, 9/11	1	19	98
Assist/clickUP for Administrators	24	16/02, 01/06	.98	**	24
e-Learning for Academics	18	18 & 19/02	*	**	18
QuestUP	34	24 & 30/11	*	**	34
TOTALS	**785**			**147**	**932**

*Feedback not captured or not in the same format as other courses. *Not available online +Average response rate 71%

Table 20: Comparison of contact attendees of e-education priority courses over the last five years

Courses	2017	2018	2019	2020	2021
clickUP Assist/Administrators	28	36	47	13	24
clickUP Overview	116	48	65	27	82
clickUP Content	88	56	49	26	69
clickUP Assessment	83	52	64	26	70
clickUP Collaboration/modalities for participation	62	32	47	14	42
clickUP Metrical	51	34	29	11	42
Turnitin	45	39	38	29	63
Tii Grading and feedback		43	28	18	50
clickUP Grade Center	31	56	78	33	79
Creating digital lectures/narrated PPTS	59	49	38	19	54
Mobile tech/trendy tools	19	29	56	16	52
ELA	22	27	27	10	18
In-video assessment				29	51
Bb Collaborate					55
Totals	**604**	**501**	**566**	**271**	**751**

5.1.1.2 Ad Hoc training

The e-education group also presented 13 institutional, three faculty-wide, and six departmental sessions to assist lecturers with remote teaching and online assessment. Four training sessions were presented to 153 tutors. The details of the sessions are recorded in the following tables.

Table 21: Institutional sessions presented during 2021

Session title	Audience	Attendees	Organiser	Presenter/s	Date
clickUP StepUP	All academic staff	129	EI	Dolf Jordaan	11 March
Proctorio training sessions	All academic staff	86	EI	Vendor training & Dolf Jordaan	13, 21 April
Keeping track of student activity in clickUP	UP BBL	199	EI	D Jordaan & E Drysdale	15 April
Bb Collaborate for tutors	UP Tutors	68	EI	D Kriel	21 April
Increasing your online teaching efficiency in clickUP	UP BBL	164	EI	D Scheepers	11 May
Preparation for online examinations	UP BBL	186	EI	D Scheepers	15 June
Perusal and moderation of online examinations	UP BBL	191	EI	D Scheepers	6 July
Good practice in communicating and enhancing student engagement in an online teaching environment	UP BBL	135	EI	D Scheepers	28 July
Collaborate tips	UP BBL	190	EI	D Kriel & J Slabbert	17 Aug
The new QuestUP: A brand new online assessment system	UP BBL	165	EI	E Mostert	15 Sept
Digital accessibility - three sessions in collaboration with A Samuels and the Disability Unit	UP BBLs	30 May: 78 31 Aug: 65 9 Nov: 53		D Jordaan and other presenters	30 May, 31 Aug, 9 Nov

Table 22: Faculty wide sessions

Session Title	Audience	Attendees	Organiser	Presenter/s	Date
Strategies to present engaging online lectures	Academic staff in EMS		Deputy Dean: Teaching and Learning	D Scheepers	29 April
Grade Scope Training	Academic staff in NAS, EBIT and EMS		EI	Vendor Training	13, 21 April, 4 May
Grade Center basic	Mamelodi		Mekidela Belay	M Thukane	25 August

Table 23: Departmental sessions

Session Title	Audience	Attendees	Organiser	Presenter/s	Date
Bb Collaborate	Information specialists	12		A Smart, H Untiedt	2 March
Bb induction, Collaborate, uploading of questions to Bb via Excel	AIM lecturers	26	P Singh	A Smart	4 March
Using and managing clickUP groups	Agricultural Economics, Extension and Rural Development Lecturers	11		Mpho Thukane	8 Sept
Blackboard Collaborate attendance	Radiography Dept	8	M Kekana	N Ngcobo	
Cirrus Lab admin training	SCS Lab Admins	16	EI	D Scheepers	11Nov
Access a test; view feedback; view students answers, review marked assignments.	External BVetNurs monitors	4	C Donnellan (EQM 410) D Kettles (ANV 420) Dr Evans (SAS 410) L Pienaar (PAH 110)	N Nkosi	

Table 24: Tutor training

Session Title	Audience	Attendees	Organiser	Presenter	Date
Online tutor training for Humanities tutors	Humanities tutors	79	G Pretorius	G Pretorius	09/03
Blackboard Collaborate tutor training	All tutors	55	Detken Scheepers	D Kriel	21/04
clickUP refresher marking course	Sociology tutors and lecturer	5 tutors and 1 lecturer	Gaby Pretorius	G Pretorius	09/061
Online tutor training for Humanities tutors	Humanities tutors	14	Gaby Pretorius	G Pretorius	19/08

5.1.2. E-Education support provided to faculties

As all staff were working remotely for the majority of 2021, the team provided advice and direct support to individuals, and small groups of lecturers via email, WhatsApp, telephonic, and virtual meetings.

5.1.2.1 E-support offices

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. The aim of the offices is to focus on the administrative side of e-learning, while educational advice and more advanced support is provided by the instructional designers. These offices were responsible for the following support during 2021, which is detailed below.

The creation of clickUP modules and the enrolment of students and staff:

- One hundred and eighty-three merged enrolment modules (these are courses where lecturers want to use the same content for two or more courses).
- One thousand and forty-two programme modules, these courses all have manual enrolments.
- One thousand clickUP Training modules, and 499 lecturers enrolled for these modules as instructors
- Over 170 cases were logged with Blackboard Support during 2021. Many requests were related to restoring of Bb Collaborate recordings because some lecturers did not download the recordings timeously, as requested by EI.

Mr. Johan Slabbert also managed the internal and external software integrations in clickUP. clickUP has integrations via Building Blocks (B2), LTI (1.1 x23 and 1.3 x6), and REST API. Most enrolments in PeopleSoft are done via SIS (Student Information System flat feed files). The enrolments of lecturers and the Gradebook integration from PeopleSoft used the REST API.
In terms of the PeopleSoft integrations:

- The TEMP access functionality was enhanced to allow batch upload for UP users. It was changed to exclude/warn of students who were not prepared for 2021. This function was removed from EI on instruction from Professor Koornhof, and DESA will take over this function in 2022.
- Immediate Publish (via the REST API) functionality was developed to push a user and their enrolments immediately to clickUP to prevent having to wait for the SIS integration process, which took at least one hour.
- The testing of enhancements in the Grade Import process for Blackboard Learn Classic and Ultra were carried out.
- The development of Course Choice was finished in PeopleSoft (faculty, department, school, or course can now have a flag, Ultra, Choice or Original/Classic) using three new templates.

Other existing integrations of clickUP during 2021 include:

- The EvaluationKIT required some effort before it could work with Ultra Navigation.
- Gradescope was implemented with a new REST API and LTI, and worked well. It was used by 245 staff members to deliver 604 assignments in 119 courses. The assignments were completed by 7 100 students. Gradescope is licensed for 8 200 students.
- iPeer – 15 courses were created for 2021, and 4898 users enrolled.
- WileyPlus – NextUI REST API and LTI integration were implemented.
- We updated and implemented a new URL for analytics on BB Extractor service after the move of the URL.
- Numbas was updated to newer versions on https://numbas.up.ac.za. Multiple meetings were conducted with New Castle University about the issue. Currently, 28 Courses use Numbas, with 9600 students and 174 000 assessments written. We are planning on hosting Numbas in the UK from 2022.
- AWS LDAP direct login to clickUP is currently used by 96% of users. Mr. Slabbert worked together with ITS to have redundancy (backups) for this service implemented.
- Turnitin – Various cases were logged for Error 231 (Changed email addresses). We further tested Turnitin LTI 1.3 for Ultra Courses.
- H5P – LTI 1.3 for Ultra courses enabled.
- TurningTechnologies – clickers: there were numerous problems with the integration thereof earlier in the year. Not many courses used it in 2021, and less than 42 Instructors logged in during 2021.

New integrations of clickUP during 2021 include:

- Bb Ally – assistive tools for higher content accessibility have been implemented for about ten courses in 2021. This product will be enabled in all courses for 2022.
- Proctorio – this online proctoring software was integrated into clickUP to deter dishonest behaviour in clickUP tests. It was enabled in 73 courses, but usage has been observed to be low.

- Badgr Pro – a product that allows for micro-credentials was installed in clickUP, but was set up on Badgr. It still has to be finalised.
- Impact/EesySoft – we started in November with its implementation for new contextual support inside clickUP.

Table 25 records the email and just-in-time training provided to staff and students per month by each e-support office. Support levels fluctuated in correspondence with the rhythm of the academic year, with more support requested at the beginning of semesters and during examinations. In general, lecturers seemed to have a higher maturity in the use of clickUP, as evidenced by the decrease in support requests and a change in the type of requests received. Overall, there was a 14% decline in support requests, a 21% decline in support requests, and a 53% decline in JIT training on the Hatfield campus. The lack of data for four months in 2020 made a similar comparison for Prinshof impossible. Table 26 compares the support levels between 2019, 2020, and 2021.

Table 25: Number of e-support individuals supported by each office during 2020 and 2021

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total per office
Hatfield (Staff & Students)	2020	1013	900	558	591	669	539	1145	983	465	363	353	202	7781
	2021	1 397	1 012	1 473	548	404	337	534	943	354	302	324	264	7 892
Prinshof (Staff)	2020	111	71	42	*	*	*	*	110	116	41	62	24	577
	2021	147	164	130	108	77	49	72	118	144	89	107	40	1245
Prinshof (Students)	2020	83	56	15	*	*	*	*	42	39	14	21	11	281
	2021	13	31	9	8	16	12	17	54	17	13	26	0	216
JIT training Hatfield	2020	10	33	29	38	44	45	40	26	28	26	23	8	350
	2021	12	15	36	16	14	15	13	15	10	3	17	0	166
JIT training Prinshof	2020	0	0	0	0	0	0	0	3	0	2	0	0	5
	2021	0	0	2	1	1	0	0	0	0	0	0	0	4
Total	2020	1217	1060	644	629	713	584	1185	1164	648	446	459	245	8994
Total 2021	**2021**	**1569**	**1222**	**177**	**681**	**512**	**413**	**636**	**1130**	**525**	**407**	**474**	**304**	**9523**

Table 26: Comparison of the number of individuals supported by e-support office for 2019 to 2021

	E-mail responses			**JIT training**		
	2019	**2020**	**2021**	**2019**	**2020**	**2021**
clickUP e-support (Hatfield) (Include emails from students)	5 305	7 781	7892	235	350	166
clickUP e-support (Health Sciences staff)	298	577	1245	55	5	4

5.1.2.2 Instructional design support

Instructional designers provided continuous advice to lecturers with their clickUP modules. Table 27 provides statistics on the number of active clickUP modules for the past five years. The focus of advice and support shifted during the lockdown period to include better online teaching practice, narrated PowerPoints, the use of Bb Collaborate for synchronous sessions, and proper educational use of click-UP assessment tools. Extensive support on the use of the Grade Center was also necessary as all marks were recorded in the clickUP Grade Center.

The statistics on the number of active clickUP modules for the past five years can be found in Table 27

Table 27: Modules on clickUP 2017-2021

	2017	2018	2019	2020	2021
UG modules	2,405	2,460	2,364	1917	1943
%UG modules	94.13	94,43%	95.2	97.9	97.6
PG modules	1,213	2245	2263	1292	1340
Number of departments	122	122	115	115	115
%PG modules	37.4	37.6	47.1	59.9	60.4

Specific faculty-related projects that were attended to during 2021 included:

- Veterinary Science: V Nkosi supported the HyFlex implementation and proctoring pilot.
- Education: J Maroga and P Mthembu assisted with the preparations and presentation of the "Distance Education and Teacher Education in Africa 2021 Online Conference" held on 3-5 August 2021.
- Health Sciences: H Untiedt provided extensive support to both staff members and students of the faculty-wide research module during 2021, and the review and redevelopment thereof for 2022.

5.1.2.3 Development of apps

The move to remote teaching during lockdown limited the time available for the development of mobile apps.

Table 28: Products developed during 2021

Project	Department	Owner	Status
Discovering animal diversity – a practical experience	Zoology and Entomology, Faculty of Natural and Agricultural Sciences	Dr Carel Oosthuizen	Completed

International law simulation	Department of Public Law	D M Bradley	Completed
Maxillofacial pathology	Dentistry	Prof. WFP van Heerden	Quizzes were rebuilt in Articulate Storyline 360. Technical issues prevented the final release of the product.
Soil	Department of Plant Production and Soil Science, Faculty of Natural and Agricultural Sciences	Mr Chris de Jager	The redevelopment of the existing multimedia on 'Soil' into an app was completed, but the lecturer required a change in the interface that resulted in delay to complete the product in 2021.

5.1.2.4 E-Assessment

The hybrid model at UP includes the use of various electronic assessment opportunities for students to enable regular assessment and feedback of both formative and summative assessments. The university uses various systems to enable this core function, namely, QuestUP, clickUP, Turnitin, the assignment tools of e-publishers, CompAssess, and Numbas.

QuestionMark Perception, known as QuestUP at the University, is used for summative objective assessment. This system supports secure objective assessment through the creation of reusable question banks and automated marking.

Lecturers also use several tools within clickUP to administer a variety of assessment formats for grading various online activities, e.g. discussions, blogs, wikis, and journals, managing submission and marking of assignments, and setting objective assessment items through the tests. Turnitin is used to verify the originality of students' work through the detection of 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. Publishers of various textbooks, e.g. Cengage, McGraw Hill, and WileyPlus, provide electronic assignments that enable formative assignments, which students use during their learning process. Finally, departments at the Faculties of Health and Veterinary Sciences use the capabilities of MS PowerPoint to administer assessments in computer laboratories, while some departments in EBIT use the specialised functionalities that Numbas affords to meet their assessment needs.

The continued lockdown period had a significant impact on the use of e-assessment as most online assessments moved to the clickUP system. The only two faculties where the QuestUP system was used throughout 2021 were the Faculties of Health Sciences, and Veterinary Science. These on-campus assessments required social distancing within the computer laboratories, which led to multiple sessions that had to be scheduled for larger student groups to allow all students to safely write their assessments. The statistics in Table 20 for the past five years clearly show the impact of the move of assessment to the clickUP system.

5.1.2.5 Online examinations

The continued lockdown during 2021 required the use of fully online examinations at the University, with students writing off-campus. DESA updated the rules and regulations to reflect the requirements for these types of examinations, and the CBT team provided input on the use of online assessment regarding the Examination and Related Matters document, and the UP Student rules and regulations.

The e-education team not only assisted lecturers with the setup of their examinations, but assisted during examination periods with two online examination support rooms, and two emergency telephone numbers made available to lecturers to assist them with problems during the examinations. These support channels were manned on a rotational basis from 7h00-20h00, Monday-Saturday for the duration of the July and November/December examinations. The support documentation that was created in 2020 was used again to guide lecturers to ensure the integrity of assessments and to comply with the regulation that students only receive their examination or final marks within PeopleSoft. The documentation was expanded to include the External Examiner clickUP guide. Updates were also made to the existing documentation on perusal and moderation. The following tables show the usage of the electronic assessment across all UP systems from 2016 to 2021:

Table 29: QuestUP assessments taken by students

CAMPUS	2016	2017	2018	2019	2020	2021
Hatfield CBT labs	7412	12609	11900	25190	296	0
Hatfield IT Labs	14338	22882	25585	24288	38	0
Mamelodi	837	2663	3276	4910	0	0
Prinshof	48491	48435	45241	45309	20089	17349
Onderstepoort	11751	16219	19707	20931	3837	4334
Groenkloof	14594	18243	16043	18355	1353	0
TOTAL	**97423**	**121051**	**121752**	**138983**	**25613**	**21683**

Table 30: COMPASSESS/ SAM assessments taken by students

ASSESSMENT SYSTEM	2016	2017	2018	2019	2020	2021
Hatfield IT labs	17903	25185	30329	30455	5764	56826
Groenkloof	755	2224	3785	4199	0	11245
Mamelodi	1519	2663	3285	2901	0	8822
TOTAL COMPASSESS/ SAM ASSESSMENTS	**20177**	**30072**	**37399**	**37555**	**5764**	**76893**

Table 31: Graded clickUP assessments attempts taken by students

Test type	2016	2017	2018	2019	2020	2021
clickUP tests**	695633	864932	1020844	1 199 682	2 299 186	3 086 596
clickUP assignments	122120	126209	155750	185262	703 114	870 308
Graded discussions	2808	1505	2257	8792	39 840	73 477
Graded wikis	4837	2089	2404	2569	3 961	4 019
Graded blogs	2674	2320	2673	2995	2 424	6 224
Graded journals	584	973	2258	4159	6 057	8 448
Turnitin assignments	124644	243445	200267	220478	463 995	536 381
McGraw Hill assign-ments	198292	219628	74274	308046	323 531	436 762
Cengage	32337	35424	179261	384014	208 150	367 871
WilleyPlus	2225	9841	10145	9529		
Numbas					92 241	114 935
Self and peer assessments	245	1017	625	102	808	1 783
TOTAL	**1 064 279**	**1 507 383**	**1 650 758**	**2 325 628**	**4 142 449**	**5 501 804**

Table 32: PowerPoint assessments taken by students

CAMPUS	2016	2017	2018	2019	2020	2021
Prinshof	2205	2212	2883	2510	3059	3815
Onderstepoort	169	8	6	114	0	0
TOTAL	**2374**	**2220**	**2889**	**2624**	**3059**	**3815**

Table 33: NUMBAS assessments taken by students

ASSESSMENT SYSTEM	2016	2017	2018	2019	2020	2021
NUMBAS	*	*	*	*	120 000	194224

5.1.3. Student support

5.1.3.1 Student clickUP introduction sessions

Online alternative training sessions replaced contact student orientation sessions. The use of the online self-paced student orientation module for clickUP more than doubled, with 7 677 students accessing the course in 2021. The GSTM lecturers indicated that the success of this initiative led them to the decision to continue using it in the future, and to not organise on-campus orientation sessions.

The instructional designers also provided 11 synchronous online student orientation sessions to 436 students. Table 34 provides a comparison of the sessions for the years 2016 to 2021.

Table 34: Student training

Year	2016	2017	2018	2019	2020	2021
Number of sessions presented	47	34	45	11	32	11
Number of students	2 008	1 706	1 874	1 637	1 099	436

5.1.3.2 Student Help Desk: Health Sciences

In 2021, the help desk for Health Sciences was only available to provide contact support for two to three days per week. Other support was provided via e-mail. A total of 40 students contacted the office in 2021.

Table 35: Number of individuals supported with clickUP through help desks

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Students: clickUP support	16	33	10	12	20	15	18	56	18	13	27	238

5.1.4. E-education support to other professional departments/ groups

The group also had to provide support to other groups within Education Innovation, Enterprises, TuksRes, COES, Faculty houses, and other professional departments as they increasingly used online training. Lockdown also forced more of their activities to take place online.

The e-support office provided administrative support with the following:

- They created 410 Enterprise courses (EUP) and enrolled 9 000 EUP students.
- TuksRes created 49 residence clickUP pages (students were enrolled via the SIS Feed files every evening).

- They created 30 undergraduate, postgraduate, and faculty house modules.
- Pre-University Academy at Mamelodi: 26 courses were created for Grade 8 to 12 on clickUP; 350 students manually enrolled and took part.
- Support was provided with the implementation of EvaluationKit to Ms. H Sehlapelo.

Instructional designers provided support with the use of clickUP and Bb Collaborate to:

- EI staff: Education consultants with various faculty modules;
- FLY@UP staff with the UPO modules;
- COES with the use of various clickUP tools and solutions to their needs;
- Student Affairs with the STAR Mentorship Programme (videos & test support); and
- Distance Education: J Maroga and P Mthembu provided support to the instructional designer for the Distance Education Unit.

BB Collaborate support was provided to numerous faculty- and institutional-based meetings beyond the teaching and learning focus.

5.1.5. National Community of Practice (COP): UP 2 U

The COVID-Pandemic caused the organisers of the 2021 UP 2 U meeting to plan a virtual national COP for the second year in a row. More than 123 national colleagues registered, and 84 attended the virtual event held on Tuesday, 26 October 2021 (08:30-13:30). The sessions focused on national universities' response to the COVID-19 pandemic. The topics included:

- How the COVID-19 pandemic impacted the work of educational technology professionals such as Instructional/Learning Designers I/LDs;
- Changes in staff development strategies;
- New technologies implemented at scale, and what lessons can be shared;
- Assessments one year later, what do we need to change, and what have we learnt? And
- How new teaching models have impacted the work of I/LDs.

The successful event was hosted by Mr Mike Swanepoel from Nelson Mandela University, and Dr Nicola Pallitt from Rhodes University. The feedback received from the participants highlighted the value of the national COP.

5.1.6. ClickUP

5.1.6.1 ClickUP Ultra Navigation

The second year of the COVID-19 pandemic again demonstrated the critical role of clickUP in assisting academic staff with remote teaching. In 2021, Blackboard implemented numerous enhancements and new features. Figure 20 provides an overview of clickUP usage in 2021 with interesting trends:

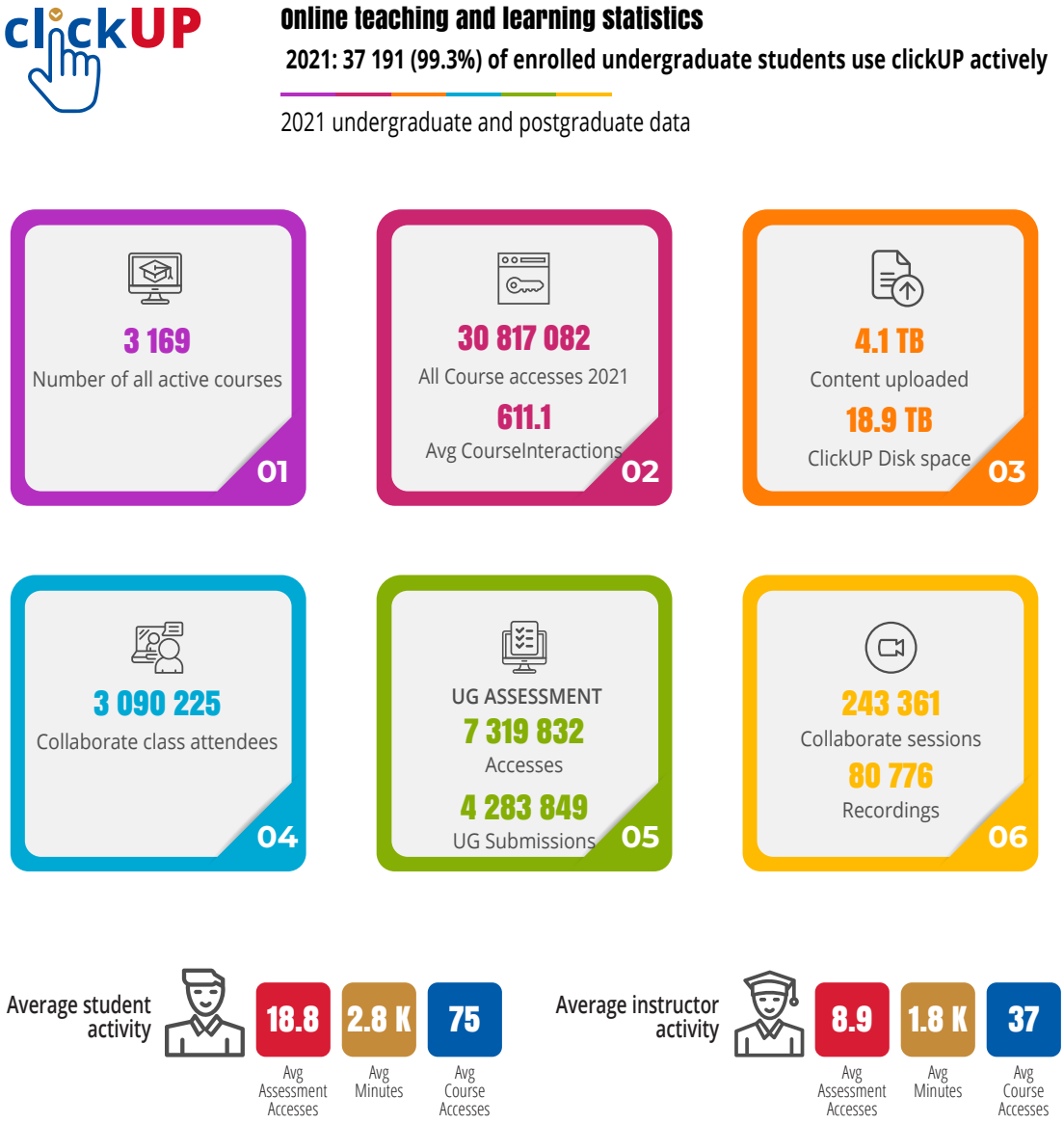


Figure 20: ClickUP usage 2021 data summary

The interesting trends observed were as follows:

1. The number of active courses is similar to that of 2020.
2. There were 23% fewer course accesses and less than 2% course interactions in 2021.
3. The content uploaded into clickUP increased in 2021 with 51%, contributing to an increase of 58% in disk space usage, for which the University must pay additional costs.
4. Collaborate class attendance grew by 196%, contributing to the acquisition of additional Collaborate storage and usage minutes in 2021.
5. Undergraduate students' assessment accesses only increased by 4.4 %, and there were more than 5% more assessment submissions in 2021.
6. Collaborate sessions increased by nearly 75%, while the number of recordings also increased by 105% in 2021.

The above data would not have been possible without the support provided by the Instructional Designers within the Department for Education Innovation. Figure 21 shows the impact of the two years of the COVID pandemic in comparison to the two years before the pandemic:

Figure 21: Instructional Designers' activity in clickUP from 2018-2021

The E-Education team continue to use the 2021 Alerts course for communication purposes. The 'StepUP' newsletters informed lecturers about the new changes they could expect within the clickUP system. Numerous StepUP newsletters were shared with lecturers during 2021, the logo of which can be seen in Figure 22 below.

Figure 22: StepUP newsletter logo

5.1.6.2 Collaborate

In 2011, the University deployed Blackboard Collaborate, a virtual classroom solution that enabled fully online teaching. This was initially used to support lecturers to facilitate post-graduate degree programmes in Africa. Collaborate continued to play a substantial role in 2021 to provide support to students and staff during the pandemic. Its value in providing support for the University to continue with remote teaching is visible not only in its usage since the University's closure in 2020, but also through its use by the Institutional Leadership of the University. The University had to acquire additional usage minutes in 2021 to support the growing demand.

Blackboard increased the development of new features and enhancements in 2021. The latest enhancements include a support chatbot, improved session reports, significant whiteboard enhancements, a gallery view, breakout groups integration with Blackboard groups, bulk downloading of recordings, and user ability to adjust the recordings' playback speed.

The value of 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 2021.

The following figures provide an overview of Collaborate usage by students and lecturers.

Collab Session Type	Session Count	Attendee Count	Session Duration Mins	Media Recording Count	Avg Num Attendees	Avg Session Attended Mins	Person Attended Mins	COL Collaborate Session attended hours
1 on 1 Session	5,101	11,262	265,808.15	1,631	2.2	46.54	415,781.68	3,957
Ad-hoc Session	817	11,232	74,953.25	634	13.7	86.14	482,158.67	1,173
Class Meeting	63,2...	3,090,2...	8,421,587....	63,781	48.9	129.00	185,605,237.89	135,943
Instructor Meeting	1,022	2,876	59,363.03	224	2.8	52.57	136,773.07	895
Lone Instructor Sessi...	14,0...	14,083	366,865.93	4,537	1.0	20.70	286,453.71	4,845
Lone Student Session	78,3...	78,381	718,928.40	84	1.0	3.50	256,548.67	4,500
Lone Unknown Session	30,7...	30,774	416,995.99	570	1.0	8.11	240,877.28	4,105
Student Group Meeti...	26,6...	332,163	1,493,465....	4,123	12.5	50.58	13,938,896.04	22,428
Unknown	4,041	33,136	256,411.89	1,182	8.2	57.75	1,413,695.90	3,890
Unknown Group Me...	19,3...	110,178	1,471,139....	4,010	5.7	70.66	5,715,423.88	22,742
Grand Totals	**243,361**	**3,714,310**	**13,545,519.83**	**80,776**	**97.1**	**525.56**	**208,491,846.78**	**204,478**

Figure 23: Student and lecturer usage data for Collaborate

The following graphs show the undergraduate students' Collaborate attended minutes, and distinct attendees per semester grade band for 2021.

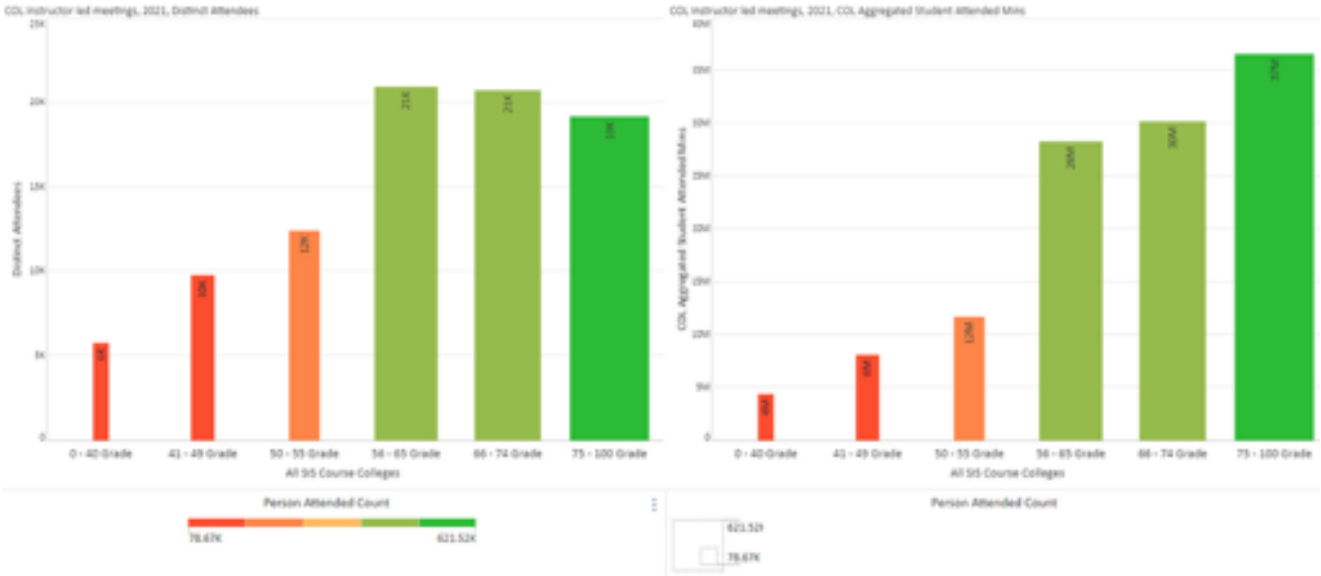


Figure 24: 2021 data for attendees, and their length of attendance on Collaborate

5.1.6.3 Learning analytics

The COVID-19 global pandemic increased the value of access to real-time data to support student success and institutional, data-driven decision-making at the University of Pretoria. It would not have been possible without the support received through national grants. Also, the ability to provide real-time data to numerous institutional and national stakeholders illustrated the value of investments in analytical systems and human resource development.

The Department for Education Innovation (EI) received numerous requests from the Executive, Deputy Deans, HoDs, FSAs, lecturers, and Instructional Designers to provide student success and institutional analytics data for informed decision making. A strategic focus in 2021 was to continue with remote teaching and learning using the Blackboard Learning Management System (LMS). Irrespective of remote teaching, existing student success projects, such as the HIMs project continued. Institutional teaching analytics data provided to stakeholders concentrated, amongst others, on:

- Remote teaching;
- Student support, including the loan laptop project;
- Online exams; and
- Lecture presence in the LMS.

The increase in demand for data required the development of dashboards and reports, which started in the first quarter. Dashboard training was presented to more than 120 Heads of Department (HoDs), and aimed to empower the users to use the developed reports and dashboards. The feedback received from HoDs indicated that the strategy to allow end-users access to developed reports might not be the best method to increase the use of the reports and dashboards. A new approach to frequently sharing reports with specific stakeholders will be possible by adding a new distribution license to the system.

EI consulted Blackboard data specialists to implement Analytics for Learn data, and technical changes that benefit numerous stakeholders. The aim is to implement required technological changes and to extend the data available in the data warehouse and include, amongst others, the following changes, and enhancements:

- Integrating student financial classification data from PeopleSoft in specific perspectives;
- Integrating Blackboard Collaborate data measurements;
- Enhancements to the Grade Center data available;
- Integrating Blackboard Ally data measurements;
- Improvements to tool description names;
- Integrating marks from 2016 onwards from PeopleSoft into different perspectives as dimensions (this is an ongoing project for which we may require additional consultation);
- Numerous improvements to the nightly Extract, Transfer, and Load (ETL) process;
- Database management: decrease the size of the database through managing content (this project has not been initiated yet);
- Numerous minor technical challenges, such as the integration of the HEDA data into Pyramid; and Installing the bursting license for data distribution.

The University's ability to provide real-time data to numerous institutional and national stakeholders during 2021 demonstrated its leadership role in Learning Analytics. The following outputs were delivered:

- Provided monthly reports for the DHET focusing on teaching and learning, and active students during the COVID-19 pandemic remote teaching period.
- Developed reports to determine students' level and medium of access to the LMS to determine which students may require a loan laptop to continue with their studies.
- Developed reports for lecturers to verify students' claims of technical problems during assessments or to verify activity data.
- Developed reports for Deputy Deans: Teaching and learning focusing on student engagement per module, per faculty to assist faculties to provide support to students. The value of the reports demonstrated the increase in LMS usage and the requirement to provide students with data support.
- Frequent upgrades of the Pyramid software with new service packs allowed users access to enhanced and new features.
- The integration of Blackboard Predict Analytics data enriched the value of the reports developed for stakeholders. Access to Predict data allowed lecturers to concentrate on students with an identified high risk of failing modules.
- Blackboard consultants provided ongoing support in integrating additional data sources into the Pyramid data warehouse.

Various stakeholders benefited through real-time data reports:

- The institution, the Executive, and senior management benefitted from frequent data-driven reports based on specific questions. These reports include online examination data, as well as student and instructor engagement at different levels.
- The students benefited as access and device data support decisions assisted again in 2021 to provide loan laptops to students based on specific requests.
- In 2021, more lecturers started to use the student success dashboards embedded in the LMS. For example, the retention dashboard was used by 237 instructors to monitor students based on set criteria. Five hundred and twenty lecturers used the instructor course analytics dashboards. In contrast, 3 661 users with an instructor role used the Grade Center to capture formative grades. The use of data-driven tools in the LMS illustrates an increase in the awareness of its value. It has proven valuable as it promotes interventions based on their real-time availability.
- Departments benefitted through the numerous reports that were developed for HoDs who wanted to measure student performance in specific modules to identify and support students at risk.
- FSAs benefitted (and ultimately, the students through targeted interventions). Positive feedback was received from the FSAs, who received reports per faculty, including Predict data. However, requests were received to revisit the prediction model for 2022.

- Staff development benefitted through an online session focusing on the value of data to support student success, which was attended by 128 lecturers. There was an increase in demand during the COVID-19 pandemic for an LMS data usage course. A fully online course was developed and communicated with the lecturers. The course assisted 30 lecturers with using data within their modules for appropriate interventions.

We consulted Blackboard Analytics consultants in 2021 to assist with the implementation of data changes. At the same time, Pyramid provided training to staff using the Pyramid enterprise business intelligence software. The University's ability to provide real-time data to numerous institutional and national stakeholders during 2021 demonstrated its leadership role in Learning Analytics on ClickUP Mobile.

5.1.7. ClickUP Mobile

The clickUP app is designed for students to view content and participate in their courses from their mobile devices. The app is available on iOS and Android mobile devices. Numerous changes were implemented in 2021. These include journal enhancements, progress tracking to assist students in monitoring their course content and assessment progress, and enhancements to the discussion board and messages.

The Blackboard Student application is a personal application designed for students. It allows students to view course activities and events, complete and submit assignments and tests, check grades and academic progress in real-time, receive notifications, and join virtual classes in Collaborate. The instructor application allows lecturers to interact with students from their mobile devices. The current version of the application enables lecturers to preview course items, assignments, and tests, participate in discussions, send announcements, and interact with students in Blackboard Collaborate.

Figure 25: FIG MOBILE DATA

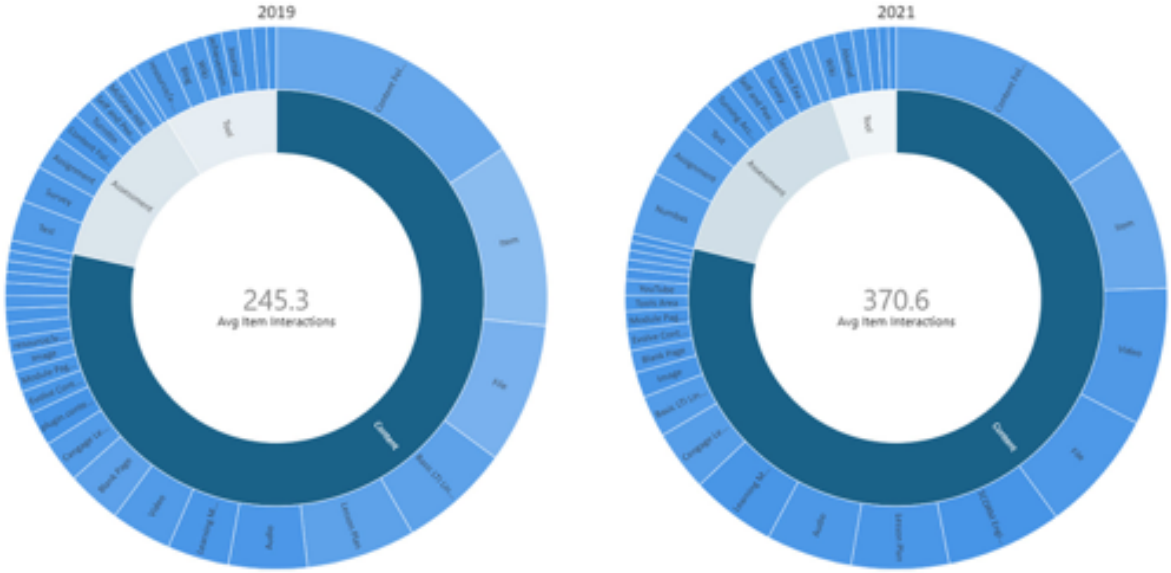


Figure 25 provides an overview of student mobile activities between 2019 and 2021. There was an increase in mobile item interactions in 2021 irrespective of the lack of free access to wi-fi on campus. The 2021 clickUP device data indicate an increase of more than 60% in average item interactions than in 2019.

5.1.8. Third-party content and software integrated into clickUP

5.1.8.1 Turnitin

The number of papers submitted to Turnitin increases year by year. While Turnitin's use rose in 2016 in response to the #feesmustfall campus disruptions, it would not have been unusual if it decreased in 2017. Surprisingly Turnitin usage again increased in 2018, slightly decreased in 2019, but significantly increased in 2020 and 2021 due to the implications of the COVID-19 pandemic.

Nearly half of the papers in 2018 had similarity scores of 25% and higher, corresponding to material published on the web or assignments submitted by other students. As high similarity scores might indicate the possible presence of plagiarism, UP started with a drive to increase the originality of assessment papers through awareness campaigns and training. More UP lecturers use Turnitin to screen, mark, and provide feedback on students' assignments. Figure 26 shows the similarity reports from 2018 to 2021 and how the majority of papers incline towards lower similarities with a slight decrease in high similarity.

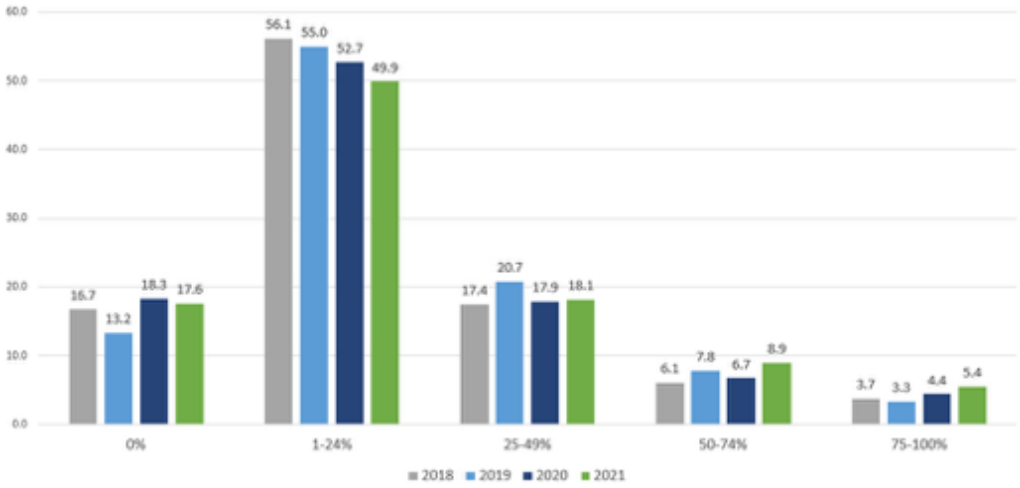


Figure 26: Data pertaining to Turnitin and the rates of discovered plagiarism

Lecturers are increasingly marking and providing feedback using Turnitin assignments, as the amount of feedback provided in 2021 is shown in Table 36.

Table 36: Turnitin feedback provided from 2018 – 2021

	Submissions with feedback	Scored with rubrics	Instructor feedback	ETS	PeerMark
Total 2018	86,3347	22 611	3 985 745	1 391 143	14776
Total 2019	103,417	21 945	391 495	206 123	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

Instructor feedback (column 3) consists of summary text comments, voice comments, QuickMarks, bubble comments, inline text comments, strikethrough text, 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.

5.1.8.2 H5P (In-video assessment)

The in-video assessment tool was implemented in 2020 to enable better continuous assessment of videos during students' pre-class preparation. New features were implemented in 2021, such as the confusion indicator, improved reporting access and accessibility options, and new content types. Training sessions were presented as part of the professional development portfolio of the e-education group. An online course on using in-video assessment also assists lecturers in using the software. Irrespective of the COVID pandemic's limitations on the uptake of the software, it was still used by 2 405 students. It was also deployed in 11 courses within the Department for Education Innovation.

5.1.9. Software upgrades/piloting of new software

5.1.9.1 Badgr Pro

The global adoption of micro-credentials that validate a student's skill, quality, or specific interest contributed to establishing a small task team to investigate institutional requirements and possible software solutions. The team had numerous meetings in 2021. Professor Duncan tasked Professor Wendy Kilfoil to coordinate the institutional investigation into micro-credentials.

Changes in clickUP also required the Department for Education Innovation to investigate a suitable replacement for the current achievement tool. Badgr Spaces provides digital badging capabilities in clickUP. Students and instructors in each course can see progress through badged learning objectives and pathways specific to the Space installed in the course. A Badgr Pro pilot will be activated in the first semester of 2022 to understand how it could address institutional micro-credentials requirements.

5.1.9.2 Blackboard Ally

UP is the first higher education institution in Africa to implement the Blackboard Ally software to make the University's digital courses more accessible to all students. This software enables students with learning disabilities, and second-language students to improve their academic performance.

The adoption of Ally fosters an inclusive learning environment. As such, the use of Ally aligns with the University's policies regarding equality and its commitment to embracing diversity. Ally is a revolutionary solution that integrates seamlessly into clickUP, making digital course content accessible to a greater diversity of students. It automatically checks digital files for accessibility issues. It further generates alternative formats, including HTML, ePUB, audio, and electronic braille, which are engineered 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 focus is on content accessibility, all students, including first-generation students, may benefit from accessing learning content in alternative formats. Students with inconsistent internet access may use offline, low-bandwidth formats. Those with undiagnosed learning disabilities could benefit from

downloading an audio MP3 format file to read and listen to content.

Ally was piloted at UP in 2021 among a small group of students and academics for a few months. Academic staff used the software to improve the accessibility of their digital learning content, and as a catalyst to create more equitable opportunities for all students.

Alongside the introduction of Ally, Dr Alecia Samuels of the Centre for Augmentative and Alternative Communication at UP has also developed a digital accessibility course. It aims to create awareness among academic staff of the need to design accessible digital materials, and also gives them the skills to make digital content more accessible from the very beginning.

Adding accessibility features to enhance digital content in clickUP in all courses in 2022 will assist UP in proactively addressing barriers to digital content for all students.

5.1.9.3 Online proctoring software

Proctorio includes ID verification, automated proctoring, content protection, secure browser settings, computer lockdown, originality authentication, administrative and faculty controls, and instantaneous analytics. It applies, amongst others, facial detection technology and a large variety of fully automated software using AI. The students' installation is simple (Chrome extension), and the integration with clickUP works well. The software was used successfully in a few modules in 2021. The feedback from lecturers highlights the effect of low bandwidth on the effectiveness of any proctoring system, and the additional anxiety that proctoring software might cause.

5.1.9.4 Cirrus Assessment Platform

The Cirrus Assessment platform was implemented at UP in 2021 to replace the existing QuestionMark Perception product that had reached its end of life. The system will be known as QuestUP 2.0 within UP. This year-long project involved more than 24 staff members from EI, ITS, and Cirrus Assessment in putting a functioning, integrated product in place. EI appointed a part-time contractor to assist the CBT team with the extensive work required for the project. The CBT team delivered on the following workstreams:

Clean-up of question data banks before migration: the move to the new system required a clean-up of the question databases to ensure that the acquired storage space is used maximally. Only questions that were used in QuestionMark Perception during the past five years were earmarked to be transferred. The CBT Team worked with lecturers to identify questions to be migrated. In total, 29% of the existing question data banks were moved across to the new system. The reasons for not moving questions included: a move to clickUP or other assessment methods, curriculum changes, new lecturers using more relevant resources, and creating new question banks with more challenging questions. All collections created by lecturers during the 2020 Cirrus pilot were also exported from the Cirrus Pilot environment and stored in the QTI store for reuse in the Production environment.

Migration of questions and quality assurance after the migration: Cirrus Assessment developed a migration process to assist UP in the migration of the questions and related media from QuestionMark Perception. This was done using the QTI XML standard. This migration process was tested and refined in the Cirrus 'Sandpit' environment with a subset of existing QuestionMark questions. The CBT team

prepared migration sheets in which the collections to be migrated were documented with the appropriate information for the migration processes of ITS and Cirrus. The questions were exported from QuestionMark Perception into QTI format and stored in the secure QTI store that ITS created for this purpose. ITS prepared the QTI XML files for the process used by Cirrus, and then Cirrus imported the questions into the Cirrus system. Cirrus provided error reports for all questions and media files that could not be migrated. This alerted the CBT team to questions that would need to be rebuilt manually in Cirrus after the migration.

There were two migration events, the first in September/October to transfer the Hatfield and Groenkloof questions, as well as first-semester modules from the Prinshof and Onderstepoort databases. The second transfer was completed in late November and the first week of December to transfer the remaining questions of the Prinshof and Onderstepoort databases. Each of these migration processes was first run in the Cirrus TEST instance to check for completeness and to sort out problems. For each transfer, the migration had to be executed three times before all problems were fixed and the migration could be executed on the Cirrus PROD instance.

The CBT team did a complete quality assurance of all the first-semester modules of the Health Sciences modules that need to be available in January 2022.

BIG Business Innovations Group (PTY) LTD was appointed by the Unit for Internal Audit to review the migration processes. The first migration was audited on 3 and 5 November 2021, and the audit of the second migration was done on 10 December 2021. The report from BIG indicated that "sufficient and appropriate procedures have been conducted and evidence gathered to support the accuracy of the conclusions reached. In our opinion, the control environment for Cirrus Data Migration is considered to be '**Good**' in providing reasonable assurance that the inherent risks are appropriately managed and that the business objectives will be attained." A 'Good' result means that:

- Objectives were met;
- There was total compliance with policies and procedures;
- There were adequate independent supervisory and monitoring activities; and
- No follow-up action is required.

Table 37: Details on the number of questions transferred from QuestionMark Perception to Cirrus in each transfer

Campus	Total topics in Question Mark	Final topics in cirrus	Final questions in cirrus	Topics	Questions	Topics	Questions	% Question-mark topics transferred to Cirrus
Groenkloof	1597	146	3 886	146	3 886	0	0	9,14
Hatfield	806	281	5 264	281	5 264	0	0	34,86
Prinshof	3420	1 729	53 817	553	16 250	1 176	37 567	50,56
Onderstepoort	2929	403	13 236	131	4 840	272	8 396	13,76
TOTAL	8 752	2 559	76 203	1 111	30 240	1 448	45 963	29,24

User Acceptance Testing: The implementation of the Cirrus Assessment platform resulted in new developments by ITS and Cirrus Assessment. The ITS middleware team developed the Cirrus Module and User Administration pages in PeopleSoft to assist the CBT team to comply with the user management rules of UP. The newly developed Cirrus administration through PeopleSoft will also automatically enrol students for the correct modules in Registration. Cirrus Assessment developed a number of new features for which UP paid half of the development costs. These were:

- To hide assessment pass marks to comply with the University's examination rules;
- To provide the random selection of questions from collections based on a set number of questions or marks; and
- To create a 'Results Webhook' to allow for the integration of student results from QuestUP 2.0 to the Blackboard Grade Center.

These new developments were tested by the CBT team in October. The testing resulted in the identification of security settings that were incorrect, and additional functionalities in the PeopleSoft process to enhance user management and ensure correct security settings. The Disability Unit also indicated usability problems for students who use screen readers; these problems were corrected by Cirrus Assessment at their own cost and retested in December 2021.

Communication, Training, change management: the CBT team communicated the implementation of the QuestUP 2.0 system to existing users via regular emails during 2021. Institution-wide communication was done through a presentation at the Flexible Futures Conference in August 2021, and an online institutional lunch hour session on 15 September 2021. The recording of this session was distributed via an announcement from the Alerts course. This communication will continue in 2022 with an introductory video, which is in the process of being developed.

The lack of a 'backdoor' to load students into QuestUP 2.0, and the requirement that this places on students to be registered before they can write assessments in the system, was communicated to DESA and the Deputy Deans on 4 May 2021. A reminder email was sent to the Director of DESA and the Deputy Dean of the Faculty of Health Sciences on 2 September to indicate that a meeting was needed to discuss the processes within the faculty to accommodate the students who would be writing assessments in the second week of January. A meeting was held on 20 October between Professor Koornhof, Health Sciences Deputy Dean: Teaching and Learning, and Student Administration, DESA, EI and ITS to discuss solutions to expedite the registration of Health Sciences students. The need for a PeopleSoft workflow to allow non-registered students with extenuating circumstances access to Cirrus was put on the table to be prioritised for development. Professor Koornhof also indicated that the TEMP access function in PeopleSoft should not be available to staff within the Department for Education Innovation.

As part of the change management process, various training interventions were conducted in 2021. Barry Lauth provided training to the CBT team on 8 September to demonstrate the use of the PS Cirrus Administration functions. Cirrus Assessment provided training to the System Administrators on 9 September to ensure the proper administration of the system. Cirrus also provided training to the CBT team on 20 October with the focus on more advanced functions. The CBT team provided training to the Student Computing Services staff on 11th of November, and to existing QuestUP users on the 24th and 30th of November.

The documents compiled to manage the QuestUP 2.0 processes within the University comprised:

- A comprehensive User Requirements Specification (URS) document that captures the configuration requirements for the product within the UP environment.
- The Roles and Responsibilities document was updated to reflect new processes between academic departments, EI, and Student Computing Services.
- A registration form for lecturers to request access to the system at (*https://forms.gle/gJsEgwgorLfbi8hP9*).
- A guide and 'how to' documents for the CBT team on the use of the newly developed PeopleSoft user management.
- QuestUP Help site *(https://eduvation.up.ac.za/questup*).
- Training documentation: PowerPoints, handouts, and a clickUP course to facilitate the QuestUP 2.0 training.
- User specification request to ITS to develop a user management area in PeopleSoft to manage the students who have to write the Colleges of Medicine of SA & SAVC examinations in QuestUP.
- Data document for POPIA compliance.

Next steps with the project include:

- Load testing of the robustness of network connectivity to cloud-based service by ITS and Cirrus.
- Testing of the QuestUP 2.0 assessments through the UPConnect portal.
- Finalisation of quality assurance of the second semester questions during January and February 2022.
- Decommissioning of the QuestionMark Perception servers by the end of February 2022.

6. Creative Studios and Communication Technology

Creative Studios and Communication Technology (CS&CT) provides strategic leadership for the design, development, and implementation of media in teaching in both 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 the Instructional Designers and lecturers on multimedia design and development. They also provide facilities and expertise on video conferencing to cater to teaching and learning, and to the Executive's needs.

6.1. Creative Studios projects

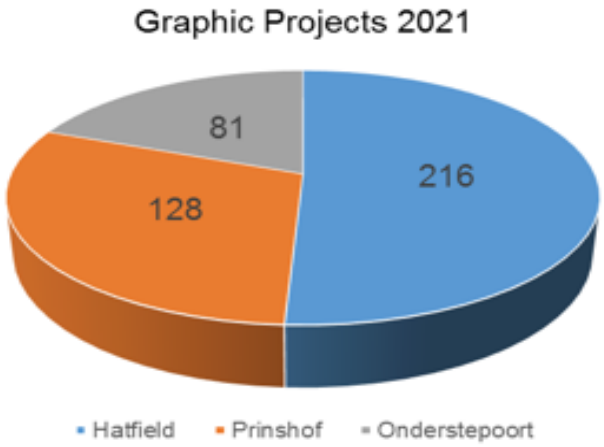
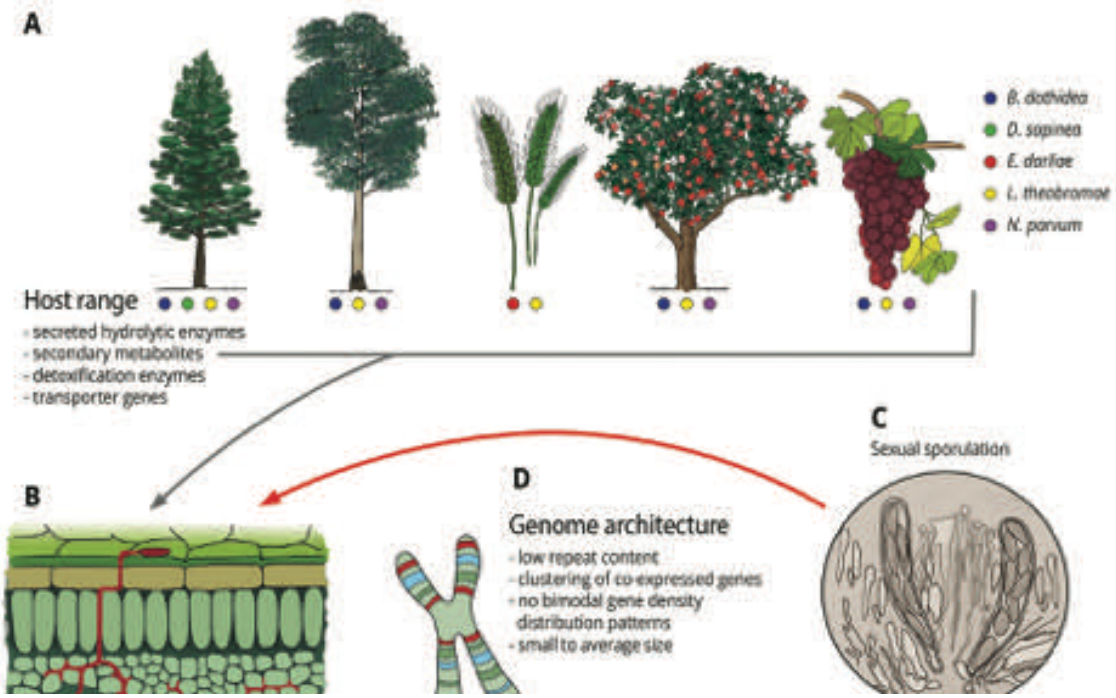


Figure 27: Number of graphic projects conducted by CSCT

6.2. Examples of designs done by Creative Studios Hatfield

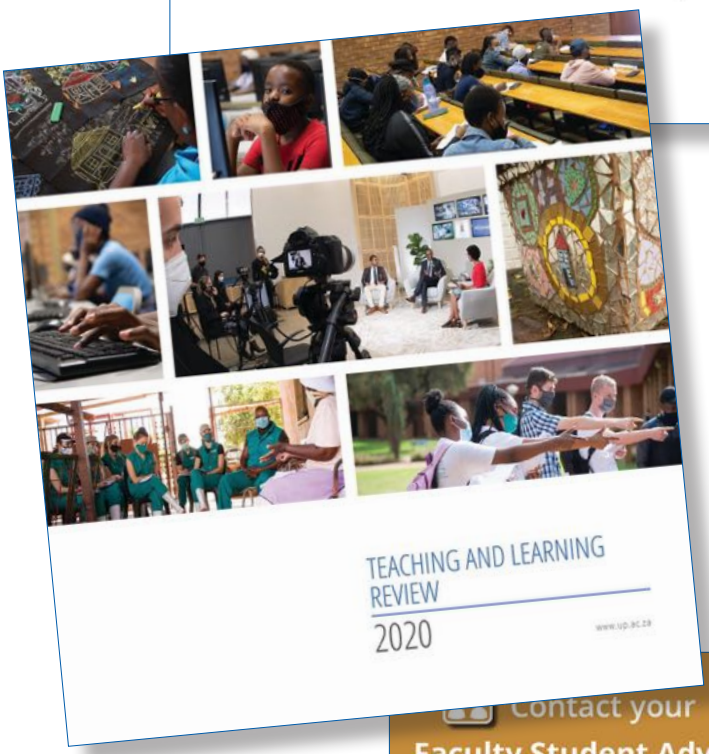



Purposeful Questioning
Purposeful questions
Three-dimensional thinking
Quality questions
Effective questioning


https://bit.ly/SQCstudy
Please share the survey
Survey on Sensory Quality Practices in Food Companies
Complete this food industry survey
Win a R500 shopping voucher
Take the survey
The 20 min survey is part of a PhD study on sensory quality practices in food companies


RE-IMAGINE UP Student Conference
Funding
Mental health
Ready for work
Idea
WELLNESS
13 & 14 October 2021
More info will follow soon


Department for Education Innovation
2020
Annual Report


TEACHING AND LEARNING REVIEW
2020


Mixed pasture ley cover crop planting strategies to reclaim the soil productivity of overgrazed degraded land by ruminant livestock.
Cele L¹, Mbatha, K² and Truter, W.F³
¹Department of Plant and Soil Sciences, University of Pretoria, Pretoria
² College of Graduate Studies, School of Interdisciplinary Research and Postgraduate Studies, University of South Africa, Pretoria RSA
*Corresponding author: u20814543@tuks.co.za
Introduction
Results and discussion
Aim
Methodology
Conclusion
References

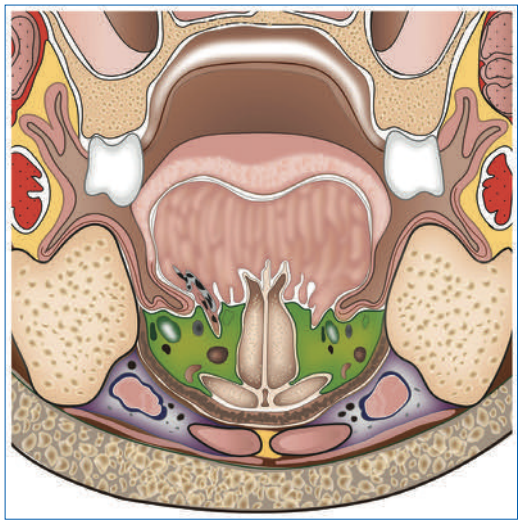

MY PLEDGE TO MY SUCCESS
4
"To always follow your dream and plans no matter the circumstances holding you down"
- Joshua

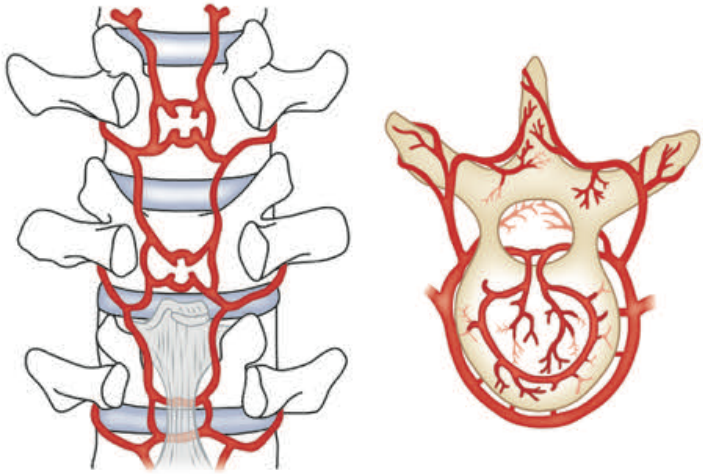

Contact your Faculty Student Advisor
http://www.up.ac.za/advising
Contact your Faculty Student Advisor (FSA)
FLY: The Finish Line is Yours
FLY@UP
https://www.up.ac.za/fly@up

6.3. Examples of designs done by Creative Studios, Prinshof Campus

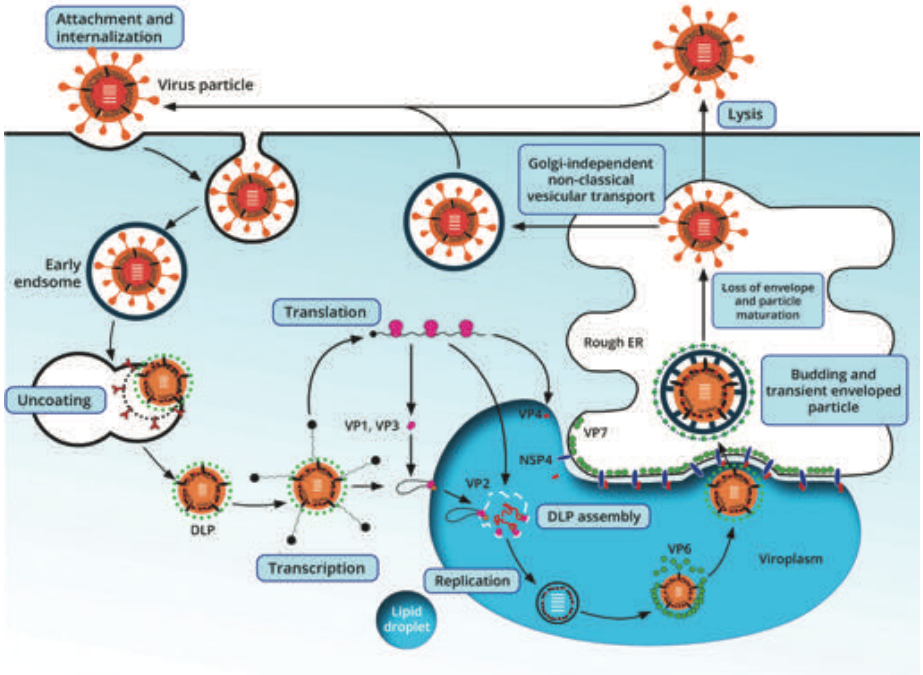
The Creative Studio designers at Prinshof campus completed numerous projects for the Faculty of Health Sciences during 2021. We have done projects for a variety of departments in the faculty, including the Departments of Anatomy, Anaesthesiology, Odontology, Psychiatry, Otorhinolaryngology, Medical Virology and Obstetrics and Gynaecology.

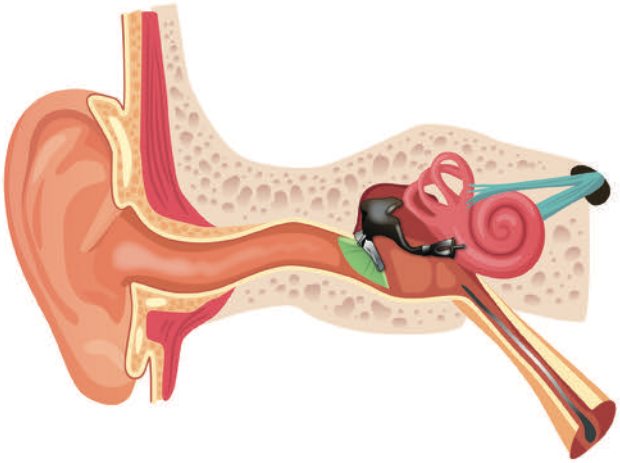
The majority of the projects were support for online teaching and learning. Engaging projects included illustrations for Anya Konig, Department of Anatomy. These illustrations consisted of the spinal cord artery systems and nerve roots. More illustrations were done for Nsuku Charnele Mabunda, Depart ment of Anatomy. These included the inside of the mouth and tongue glands.





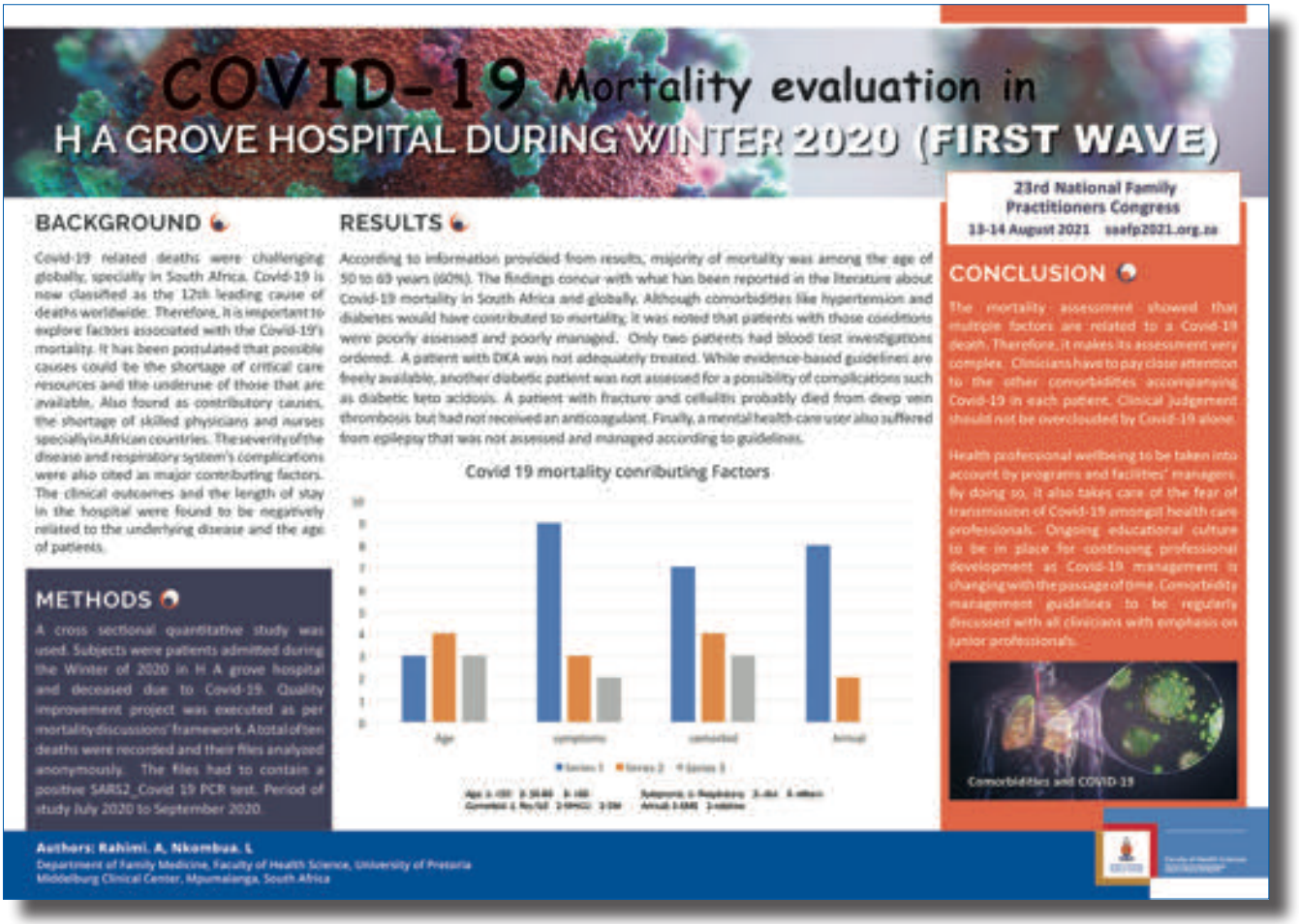
Illustrations of the Rotavirus Replication Cycle (Rotavirus infections are a leading cause of severe, dehydrating gastroenteritis in children younger than five years of age) was done for Walda van Zyl, Department of Medical Virology.





Other projects involved illustrations and poster designs for Professor Mashudu Tshifularo, Head of the Department of Otorhinolaryngology and Head and Neck Surgery at the University of Pretoria and Steve Biko Academic Hospital. A series of five posters was designed. The procedure discussed in these posters are a world-first middle ear transplant using 3D-printed bones. This operation was performed in March 2019 at the Steve Biko Academic Hospital by Professor Tshifularo.

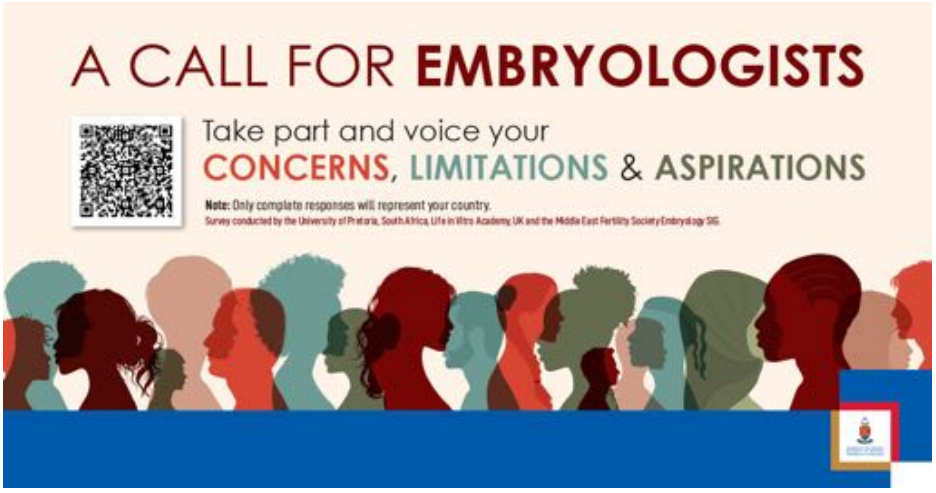
With the COVID-19 epidemic still ongoing, the Faculty of Health Sciences had their first virtual Faculty Day in August 2021. CS Prinshof designed various e-Posters for this event. The theme for the event was 'Reimagining research in health science'.



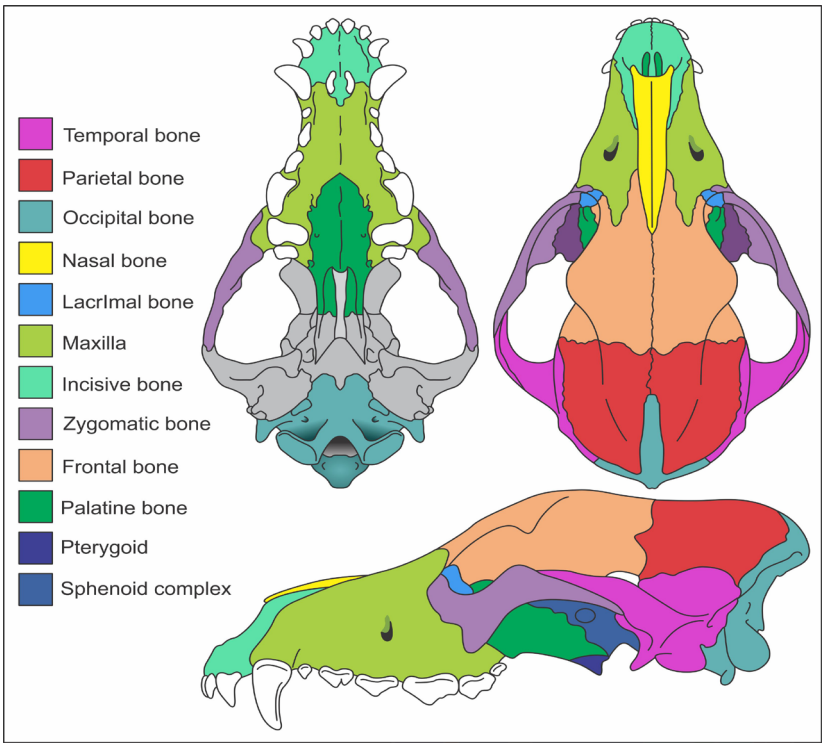
CS Prinshof also contributed to creating clickUP banners for training modules, as well as digital invitations for the Teaching and Learning Assessment Courses presented by Dr. Irene Lubbe, Department for Education Innovation. Invitations were created for the Game-Based Learning Course (T21GBL) and the SPOC on the use of Videos (T21VID). These courses introduced alternative teaching and assess-

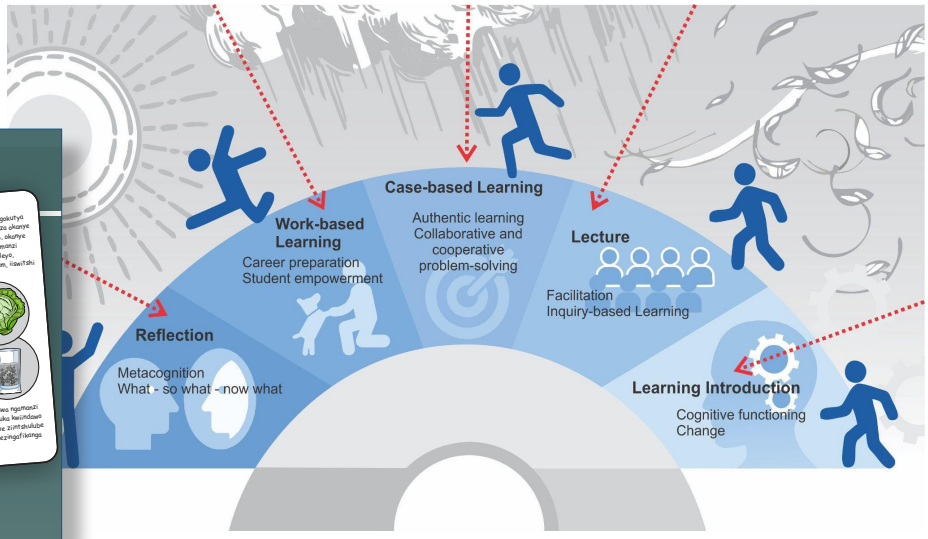
ment methods, as well as how to use video as a tool for engagement, learning, reinforcement, remedial, reflection, and assessment.

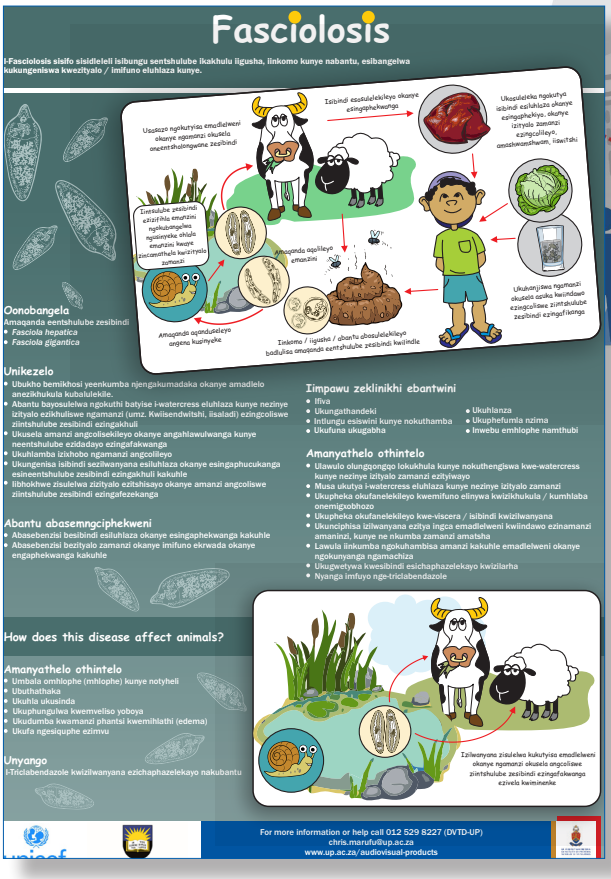
Professor Carin Huyser, Head of Reproductive Biology Laboratory (Obstetrics and Gynaecology) also utilised CS Prinshof in the creation of artwork for a global questionnaire that was sent out to the chairs of societies. This questionnaire focused on "What is your view on the Embryology Profession". It was sent out to all Assisted Reproductive Technology and Lab Professionals in the field. Social media images and banners for this survey were also designed to obtain even more responses.

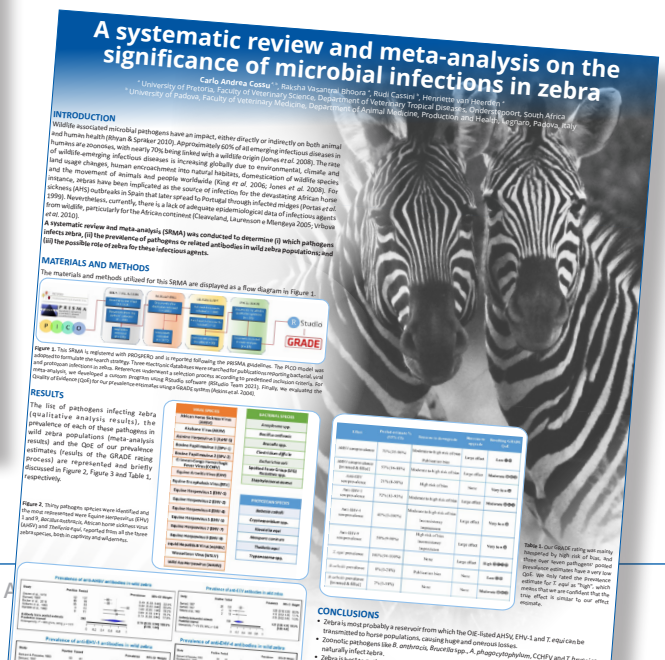


6.4. Examples of designs done by Creative Studios at Onderstepoort









6.5. Examples of Videos done by Creative Studios

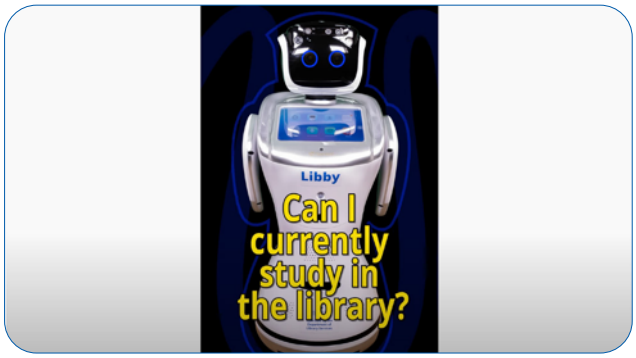
Units and conversions:
https://youtu.be/RqmIyV_-YSM

Elementary and Speciality Pastries
https://youtu.be/_7fb8VUgNXc

https://youtu.be/1b1WFw6mLAY:
A series of video recordings were done by the video production team throughout 2021 for Dr Hennie Fisher at the Department of Consumer and Food Sciences. He presented a range of practical topics that were difficult to present to students because of the COVID-19 restrictions.

"Law of the sea: Hot pursuit" for Dr Martha Bradley - Public Law PBL320:
https://youtu.be/Pub5De0J2yg

This 19 minute video was done by Andre du Plessis using his 2D & 3D animation skills to create graphics and animation to simulate and explain the unclear concepts of international water borderlines, and restrictions in the "Law of the sea - Hot pursuit" lecture in the PBL320 module presented by Dr Martie Bradley of Public Law. As in many of these types of productions, he had to do a lot of research on the topic apart from the help of Dr Bradley in order to understand the parameters of the specific law and regulations thereof.



https://youtu.be/wL1rrrGK5fE:
Andre also did a series of short Tik Tok/YouTube short style videos for Library Services. These very short graphic orientated videos were done to answer students' questions around the COVID restrictions influencing their access to the Library Services. The image and voice of the AI robot 'Libby' from Library Services were used as the 'presenter'.

7. Higher Education Research and Innovation

The Higher Education Research and Innovation (HERI) unit is managed by Dr Juan-Claude Lemmens. The unit focuses particularly on institution-wide research into teaching, learning and student success. Furthermore, it provides strategic leadership in learning analytics for student success through the Tshebi committee. It also facilitates data analytics capacity institutionally in collaboration with the Department for Institutional Planning, faculties, and other support departments, including the technology to support data-driven decision making.

7.1. Highlights and new initiatives

With the e-learning section in EI, HERI facilitated the training of Deputy Deans and Heads of Departments on the Pyramid Analytics software. This initiative aims to foster an evidence-based approach to improving teaching and learning, and to support student success. HERI also developed a course analytics framework and structured questionnaire to guide the implementation of module reviews in future. HERI also facilitated the administration of the South African Survey of Student Engagement (SASSE) to undergraduate students, as well as the CHE-USAf-UFS Staff Experience of, and Perspectives on Teaching and Learning and its Future (SEP-TLF) survey.

7.2. Learning analytics

Learning analytics uses data about learners and the context in which learning occurs in order to advance the understanding and optimisation of learning (Siemens & Gašević, 2012). Generally, a learning analytics cycle covers four main interrelated stages, namely, data collection and preprocessing, data modelling, presentation of results, and interventions. This approach was followed by HERI in their 2021 learning analytics projects.

The project focused on a diagnostic survey and machine learning algorithms to a) Determine the factors associated with the readiness of undergraduate students using the UP Readiness Survey, b) Develop a student success model that was used monthly to recommend academic advising to at-risk students, c) Develop a classification model to identify first-time first-year students for academic support in 2022, and d) Use data from the Learner Case Management system to evaluate the impact of interventions on the academic success of students previously identified as being vulnerable to experiencing academic challenges. Pyramid reports and dashboards were developed for the FSAs to easily gain access to students' learning data, as well as results to the UP Readiness Survey.

7.3. The UP data analytics committee

The Vice Principal: Academics established an analytics team, Tshebi, in 2016, which focused on undergraduate student success. Tshebi is composed of faculty representatives (mainly Deputy Deans for teaching and learning), EI, ITS, Enrolment and Student Administration, Institutional Planning (sub-department Institutional Research and Planning), and Student Affairs. The committee continues to focus on the HIMs project, including graduation rates, progression, student readiness, academic advising,

and student feedback on teaching. Pyramid Analytics, a business intelligence and data-analytics software solution, was identified as a solution to optimise the HIMs project through simplified reporting and analysis. Pyramid Analytics was scaled to provide data to the Dean/Deputy Deans, Heads of Departments, Education Consultants and FSAs.

7.4. High-Impact Modules (HIMs) project

The Tshebi HIMs is an initiative to improve the module success rate of a selected number of modules in the faculties of EBIT and NAS. This kicked off at the beginning of the year with planning meetings with the Deputy Deans of these faculties. Both faculties received funding for student assistants in the selected modules. EBIT identified five modules that would be supported, and NAS opted to focus on the mathematics stream modules, as well as five additional modules. The focus of the HIMs in 2021 was to increase the use of the Blackboard Retention Center in the modules, the utilisation of Pyramid Analytics, and to include the Student Feedback on Teaching Survey to be used by lecturers to improve their teaching design. HERI facilitated the training of Deputy Deans and Heads of Departments on Pyramid analytics, as well as on-demand support to Deputy Deans' assistants.

A structured module review questionnaire was also developed during 2021, allowing for a broad uptake of module reviews across the institution, which is planned for implementation in 2022. The results of the module review questionnaire are available on Pyramid Analytics and integrated into clickUP and HEDA data to create a data-informed approach to module success. This approach fits the new HERI module analytics framework.

HERI presented their module analytics framework at the 2021 Flexible Futures conference, which will be the guiding framework for module reviews and their learning analytics initiatives going forward.

The framework includes the following key points that are of importance in next-generation learning analytics initiatives:

- Intentional inquiry into learning, teaching and assessment practices to enhance those practices and to improve learning;
- Action-inquiry framework;
- Quality management systems for module review;
- Humanising learning analytics;
- Trusted learning analytics and ethics;
- Fusion of analytics to improve productivity, innovation, and performance;
- A holistic view that incorporates the student, lecture, policies/practices, and the learning environment; and
- Grounding learning/course analytics in educational theories.

7.5. Surveys

HERI manages the design, development, and implementation of institutional surveys to measure student readiness and engagement, as well as the impact of student success interventions. HERI evaluated the 2021 Academic Orientation Programme (AOP) for first-year students with a survey. The aim of the questionnaire was to determine whether the programme attained the expected outcomes; to obtain information about how the students experienced the AOP, and to collect suggestions about how the programme can be improved. The survey was administered online as part of the orientation programme to all students who attended the AOP. The results show that the AOP achieved its overall objectives. HERI also administers the UP Readiness Survey during orientation to gauge the biographical and psycho-social factors that are related to students' success. HERI also administers a survey used to evaluate the academic advising programme. The survey was administered to all students who made use of the services of FSAs to evaluate the students' satisfaction with the programme. In addition, HERI supported the administration of the South African Survey of Student Engagement (SASSE), as well as the CHE-USAf-UFS Staff Experience of, and Perspectives on Teaching and Learning and its Future (SEP-TLF) survey. This survey was targeted for academic staff members, and the objectives were to measure the experiences of lecturers and academic leaders/managers during periods of remote teaching and learning. This survey further allows us to understand how these groups see the future of teaching and learning beyond COVID-19.

8. Community Engagement

The Unit for Community Engagement provides strategic leadership on Community Engagement (CE). 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 stakeholders. As the majority of students involved in community engagement are earning credit towards their degrees, lecturers, faculties, and students are the primary stakeholders. The other significant stakeholders are external communities, and governmental and non-governmental organisations. Engagement with society and communities flows from the University's teaching and research functions. In light of this, support is primarily lent to curricular and research related forms of community engagement, and to developing desirable attributes in students. In essence, community engagement is about civic responsibility and citizenship. It further comprises linking the best of the research and teaching skills of the staff and students to the specific needs of each diverse community, thus giving effect to one of the 'public good' dimensions of universities. In turn, student life and the attributes developed while students are at university are enriched through their service-learning and engagement.

The University is fully committed to what are regarded as the three pillars of higher education: teaching, research, and community engagement. As a matter of strategy, CE has been fully integrated into teaching, learning, and research. The University is promoting a culture of academic citizenship by introducing community engagement as a compulsory credit-bearing component of a number of undergraduate academic programmes offered by the University. For example, the JCP module in the Faculty of Engineering Built Environment and Information Technology places about 1 800 students a year, while more than a third of the total institutional enrolment is involved annually.

The summary table below provides an indication of the scope of curricular community engagement activities in 2021. In total, 355 modules indicated that they had a community engagement component:

Table 38: Student engagement in community engagement per faculty

Faculty	Count of Student
EBIT	2 601
Economic and Management Sciences	6 082
Education	5 086
Health Sciences	17 175
Humanities	2 174
Law	1 052
Natural and Agricultural Sciences	4 120
Theology and Religion	206
Veterinary Science	2 648
Total	**41 144**

The institutional Community Engagement Award went to Professor JFM Hugo and Dr AH Talma from the Department of Family Medicine, School of Medicine in the Faculty of Health Sciences. Their contributions have ensured the success of the Longitudinal Community Attachment for Students (LCAS) module. The team leader, Professor Hugo, Head of Department of Family Medicine, has dedicated his academic career to uplifting the community, and has been involved in various projects in the community. Among others, he developed the Telehealth App, which is employed by Community Health Workers to monitor the health of patients in rural communities.

Community Engagement (CE) is a major contributor to the transformation of the curriculum. Students apply their knowledge and skills to solve problems in partnership with local communities who have identified a problem in their environments themselves. Student learning is highly contextualised for the South African situation, and develops social responsibility. Students learn how to work with the leaders in mostly deprived communities, help them solve immediate problems, and also transfer and develop skills for them to solve problems independently in future. Most of the CE at the University is credit-bearing in the curriculum, and students cannot graduate without showing evidence of achieving the outcomes of particular modules through CE. Formal assessment is also required, and this can be formative as well as summative. In many cases, the community also contributes to the assessment by confirming their satisfaction with the outcomes achieved. Below are some of the photos that showcase students' interventions in collaboration with communities:

Figure 28: Examples of CE initiatives at UP in 2021

The Unit for CE manages data related to communities and projects, among others, through an online community engagement management system (CEMS – access is provided through the portlet on the intranet). The Unit also negotiates community placement based on module outcomes or outcomes to be achieved through voluntary service-learning. They ensure safe environments for students by nurturing community relationships; brief students both on the character of communities and on the security in communities prior to going on community engagement activities; provide maps for safe access to communities; and monitor all sites regularly.

A wide range of engagements with society and communities takes place in the nine faculties, as well as at GIBS and on the Mamelodi campus. On an institutional level, UP has run successful community engagement programmes for approximately three decades, changing to a partnership and development paradigm two decades ago. Societal and community engagements rest on two pillars: the larger pillar is structured, outcomes-based, and credit bearing, while the smaller comprises voluntary and non-credit bearing engagements. Both curricular-motivated and voluntary-motivated students are briefed prior to the start of their engagement regarding the nature of community engagement at UP, mutually respectful and beneficial relationships with partners and community leaders, and keeping safe in the communities.

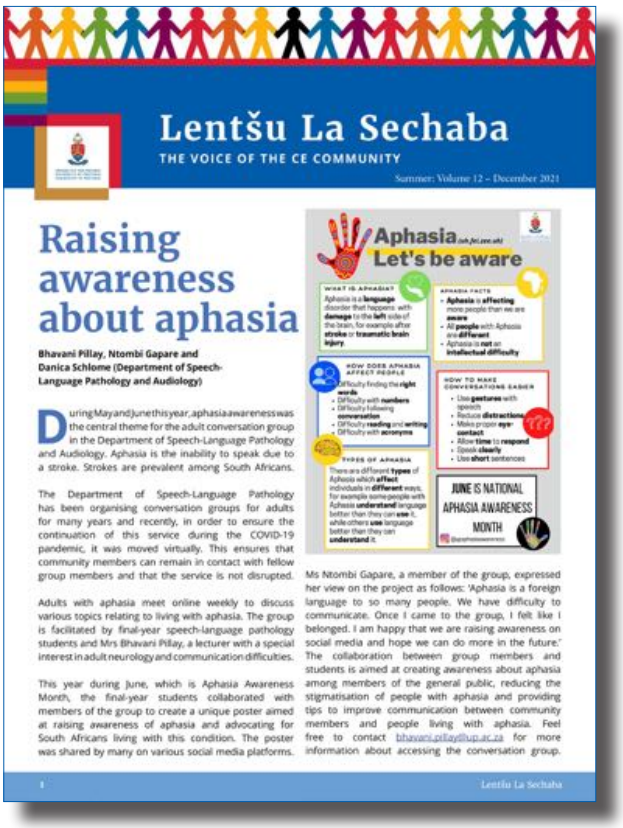
The CE unit publishes newsletters, *Lentšu La Sechaba,* to showcase the range of projects and activities:

- Volume 9 - Lentsu La Sechaba (April 2021).
- Volume 10 - Lentsu La Sechaba (July 2021).
- Volume 11 - Lentsu La Sechaba (October 2021).
- Volume 12 - Lentsu La Sechaba (December 2021).


Lentšu La Sechaba
THE VOICE OF THE CE COMMUNITY
Spring: Volume 9 – April 2021
Editorial letter:
Social connectedness versus social distancing during the COVID-19 pandemic


Lentšu La Sechaba
THE VOICE OF THE CE COMMUNITY
Winter: Volume 10 – July 2021
Students' responsibility to re-imagine a positive future for South Africa
Ben van der Merwe (Lecturer: Faculty of Economic and Management Sciences)


Lentšu La Sechaba
THE VOICE OF THE CE COMMUNITY
Spring: Volume 11 – September 2021
Bags of hope project
Hafsa Essop (Lecturer: Department of Radiography)


Lentšu La Sechaba
THE VOICE OF THE CE COMMUNITY
Summer: Volume 12 – December 2021
Raising awareness about aphasia
Bhavani Pillay, Ntombi Gapare and Danica Schlome (Department of Speech-Language Pathology and Audiology)
Aphasia Let's be aware
JUNE IS NATIONAL APHASIA AWARENESS MONTH

9. Operations Office

The Operations (OPS) Office, managed by Ms Elize de Waal, proactively uses skilled and experienced staff to support EI. This support is required in terms of human resources, and financial and logistical matters to ensure that EI can function optimally. The core mandate of this support unit within EI is to promote, encourage, and sustain best administrative practices by consciously striving to increase effectiveness and efficiency. The group consists of five people with a solid knowledge base in their field (logistics, technology, human resources, relationship skills, and finance) and the ability to adapt to new processes and systems. The degree of co-operation needed to function requires this office to nurture relationships with many other support departments at UP. The Reception at Hatfield campus provides a single point of control of the entrances to EI, gives information for first-line enquiries, and receives deliveries. The OPS Office assists with all of the financial procedures, requests and forms, as prescribed in the UP Policies and Procedures document. The OPS office provides a complete and effective service to the 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.

Quality service is rendered in terms of internal and external client relations and links with the EI department, UP Departments, services, and divisions. 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 key 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.

10. Research outputs

10.1. Publications in Accredited Journals

Graham, M. A., Stols, G. H. & Kapp, R. (2021) Integrating Classroom Technology: South African Mathematics Teachers, Computers in the Schools, 38:3, 189-213, DOI: 10.1080/07380569.2021.1953951

Jordaan, M. and Jordaan. D. (2021). The use of reflective photography in a large service-learning module. The international journal of learning in higher education. The International Journal of Learning in Higher Education, pp. 23 – 35. https://doi.org/10.18848/2327-7955/CGP/v29i01/23-35

Kritzinger, A., Lemmens, J., & Potgieter, M. (2021). Effectiveness of the blended design of a first-year biology course. International Journal of Science Education, 43(12), pp. 2025-2043. https://doi.org/10.1080/09500693.2021.1950942.

10.2. Book Chapters

Jordaan, M. and Jordaan, D. (2021). The relevance of social responsibility in empowering students with required 4th Industrial Revolution power skills through a service-learning module. In Eloff, I. Van Eeden, E., Dippenaar, H. (Eds). Community Engagement Research in South Africa: Histories, Methods, Theories and Practice, Van Schaik Publishers, Pretoria, pp. 349 – 368

Jordaan, M. and Jordaan, D. (2021). Using a blended learning approach in a large community engagement course, in S. Koç and M. Boboc (Eds.). Teaching large online and blended classes. Information Age Publishing Inc, Charlotte, pp. 51 – 70.

Lemmens, J. & Ntshabele, B.T. (2021). Evidence-based decision-making on the improvement of student success: A study of the uptake of institutional research at two universities in Gauteng. In Utilisation of South African Research on Higher Education, Eds, Botha and Vilyte. SUN Press, Stellenbosch, South Africa. 978-1-991201-40-9.

10.3. Conference Papers

Crole, M., Steyn, C., Mostert, E., Nkosi, V.& Pienaar, M. (2021). Virtual microscopy as a tool for alternative assessment to increase student engagement and preparedness in veterinary histology during the pandemic of 2020. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Jordaan, D. (2021). Using Analytics for Learn data to develop a quantitative teaching presence framework. Blackboard World Virtual Conference, Wednesday July 21 st, 2021.

Jordaan, D. (2021). Shifting the focus from learner analytics to teacher analytics: A COVID perspective of lecturer LMS presence during 2020 and 2021. Flexible Futures 2021 Conference. Online, 26-27 August 2021.

Kebalepile, M.M (2021). The development of a classification model that describes attributes of first-generation students with a likelihood to remain in their program and progress to the next academic level 1. *Southern African Association for Institutional Research (SAAIR) Conference.* Online, 2-5 November 2021.

Lemmens, J. (2021). Course Analytics to improve teaching, learning and student success. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Lemmens, J. (2021). Implementation of the UP Readiness Survey to support student success. *Siyaphumelela conference.* Online, 23-25 June 2021.

Lemmens, J. (2021). Learning Analytics towards student success in a course. UNISA Learning Analytics webinar. Online, 11 August 2021.

Lemmens, J. & Byles, H. (2021). A tool to log advising interventions. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Maroga, M.J. & FM. Omidire (2021). E-learning for student support, inclusion and equity in diverse post - pandemic teaching contexts. DETA Virtual Conference, 3-5 August 2021.

Mostert, E., Scheepers, D., Pretorius, G., De Bruyn, E., Ngcobo, N., & Sias M. (2021). Reimagining Assessment at UP: Heads in the cloud, feet on the ground. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Stols, G.H. (2021). Transforming Post-School Education and Training (PSET) Institutions through Blended Learning – What Did We Learn From COVID-19?, DHET-CHE Research Colloquium 2021. Open learning: Flexible and blended learning in post-school education and training, Virtual conference: https://www.dhetresearchcolloquium.co.za/, 22 September 2021.

Thukane, M. & Smart, A. (2021). Introducing Interactive Video and Content for clickUP: in the COVID years - ID's experience. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Wenhold, F., De Bruyn, E., Van Niekerk, A, Kotze, V. & Booyens, M. (2021). The hands-on anthropometry APP: Development, implementation and evaluation. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

Zulch, B., Jansen, R, & Smart A. (2021). Implementing a unified approach to online assessment: a departmental case study March 2020 - December 2020. *Flexible Futures 2021 Conference.* Online, 26-27 August 2021.

10.4. Research Reports

Lemmens, J. (2021). Evaluation of the graduation rates of the 2010-2018 cohorts of the BCMP: Clinical Medical Practice. Department for Education Innovation. Unpublished resource.

Lemmens, J. (2021). First-year Academic Orientation 2021. Department for Education Innovation. Unpublished resource.

Lemmens, J. (2021). *High Impact Modules (HIMs) project: 2019 and 2020. Department for Education Innovation*. Unpublished resource.

Lemmens, J. (2021). *High Impact Modules (HIMs) project: 2020 Case Studies. Department for Education Innovation.* Unpublished resource.

Lemmens, J. (2021). *Tshebi HIMs 2021. Department for Education Innovation.* Unpublished resource.

Lemmens, J. (2021). *UP High Flyers: Academic performance compared. Department for Education Innovation*. Unpublished resource.

Lemmens, J. (2021). *UP Readiness Survey 2021. Department for Education Innovation*. Unpublished resource.

10.5. Membership of Associations / Research Bodies / International Committees

Jordaan, D. Blackboard Virtual International Conference Organising Committee.

Jordaan, D. Blackboard Community and Global Leadership Circle.

Lemmens, J., & Kebalepile, M.M. Southern African Association for Institutional Research (SAAIR): Members.

Lemmens, J. Society for Learning Analytics Research (SoLAR): Member.

10.6. External Workshops presented

Lemmens, J. (2021). *Applying models to the enrolment plan.* Online, 27-29 September 2021. Institutional Research Foundations and Institute, University of Pretoria.

Lemmens, J. (2021). *Typical data for the strategic plan.* Online, 27-29 September 2021. Institutional Research Foundations and Institute, University of Pretoria.

Lemmens, J. (2021). *Strategic planning.* Online, 27-29 September 2021. Institutional Research Foundations and Institute, University of Pretoria.

Lemmens, J. (2021). *Module analytics.* Online, 27-29 September 2021. Institutional Research Foundations and Institute, University of Pretoria.

Lemmens, J. (2021). *Programme analytics: Excel.* Online, 27-29 September 2021. Institutional Research Foundations and Institute, University of Pretoria.

10.7. Online articles and magazine publications

Jordaan, D. (2021). *UP targets 'inclusive" digital Learning with Blackboard software*. ITWeB. https://www.itweb.co.za/content/j5alrMQaO81MpYQk

Jordaan, D. (2021). *University Of Pretoria First in Africa to Adopt Blackboard Ally to Support Inclusive Learning.* Indian Education Diary. https://indiaeducationdiary.in/university-of-pretoria-university-of-pretoria-first-in-africa-to-adopt-blackboard-ally-to-support-inclusive-learning/