# Learning Analytics Procedure

# Section 1 - Purpose

(1) This document sets out the University of Canberra's (University) procedures related to learning analytics, related uses, and responses to data and analytic outcomes.

# Section 2 - Scope

(2) These Procedures apply to all students enrolled in coursework courses at the University and at the University of Canberra College (UCC), staff (academic & professional) and executive staff who oversee students' learning and the teaching teams, at the University.

(3) Relevant policy to support higher degree by research students is set out in the Higher Degree by Research Progress and Milestones Policy.

(4) Information about data security and privacy is covered in the DITM and Records Management Policy Manual and the Privacy Policy.

(5) Information relating to significant and continued lack of engagement or poor academic progress (which may lead to conditions placed on a students' enrolment) are covered in the Academic Progress (Coursework Units) Procedure.

# Section 3 - Policy

(6) Nil.

# Section 4 - Procedure

### Introduction

(7) In describing the management of processes, these Procedures give guidance on how to make use of Learning Analytics displayed on digital dashboards tailored to the context of learning and teaching and describe the way that learning analytics are used to improve the provision of education and learning experiences for students.

(8) Furthermore, these Procedures support an evidence-based (non-deterministic) approach to interpreting static and dynamic information gathered from various University data-sets.

(9) These Procedures also describe the University's data management processes as applied to the purposeful creation of learning analytics, being:

a. "the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs." – Definition from the Learning Analytics and Knowledge conference, 2011.

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## Purpose of Data and Definition of Risk

(10) These Procedures outline the University's processes in supporting students through early identification of need for intervention, by assessment of risk.

(11) The University monitors, records and assesses the academic progress of students in the course/units in which they are enrolled.

(12) Progress is measured through learner analytic tools, which collate relevant information of a student's attendance and engagement in a course and assign students to risk categories by unit.

(13) The learner analytic software considers numerous variables collated on individual students and responds to key indicators that can contribute to a student being considered at-risk of academic failure.

(14) The University defines risk of academic failure as continued lack of engagement in the course and/or poor academic progress, and/or external/welfare concerns that could lead to at least one of these factors:

   a. actions by the student that increase their likelihood of failing one or more units, including low rates of participation whether face-to-face or online;
   b. late or non-submission of assessment tasks; and
   c. poor performance in assessment tasks.

(15) Information on student risk indicators from learner analytics appear in the unit/course/discipline head convener dashboards from week three of each teaching period, to allow suitable support to be offered to students in a timely manner.

(16) At any time, academic staff who become aware of students at-risk of not making satisfactory progress within their unit (e.g., through learning analytics reports, participation, completion of assessment tasks, or any other means) should advise students of the academic and personal support services available at the University.

## Collection of Data

(17) Learning analytics at the University are derived from data collected from a variety of sources, which are retrieved from, or subsequently stored within a dedicated data warehouse.

(18) The collected data is drawn from the University's student management system and learning management platform.

(19) The collected data is visualised through a dashboard designed to promote learner and teacher engagement in educational partnerships.

## Use of Data

(20) The University applies learning analytics to facilitate the creation of adaptive and responsive educational design and learning environments, in addition to other sources of information about students' academic progress (such as faculty records, and University marks and grades).

(21) Learning analytics support the identification of students who may be at-risk of not making satisfactory academic progress through:

   a. Engagement measures, calculated through extracting information from students' use of learning resources, learning activities and other elements which are included in the University online learning environments.
   b. Risk of academic failure determined through several measures which are weighted according to various factors

relating to academic progress and engagement. Risk is categorised by high, medium and low risk of academic failure.

    c. Progress measures in the dashboard, calculated based on actual completed credits, as well as predictions of academic risk (incorporating engagement).

(22) The University responds to engagement, risk and progress indicators in a timely and appropriate manner. That data provides:

    a. students with an overview of their engagement and progress in the units in which they are enrolled, and with their overall progress in regard to course completion,

    b. academic staff with information on how students in their units are progressing in relation to engaging with online materials, assessment tasks and completion rates, and

    c. the University's executive with comparative data on retention, engagement, risk and progress, and monitors the overall progress and achievement of learners across the University.

(23) An annual report will be submitted to the Academic Quality and Standards Committee (AQSC), by Learning & Teaching during Semester 1 to detail the overall data for the previous academic year for University students, in relation to numbers of students at-risk, engagement measures, statistical data for demographic and associated retention/attrition rates, as well as related data derived from the learning analytics platforms.

## Monitoring of Data

(24) A dashboard provides students with data and prompts them to increase their engagement in their units, meet assessment deadlines and gives them details of their overall course progress, marked and confirmed grades and enrolled units. This empowers students to self-track and monitor their own engagement, achievement and progress in their units.

(25) Collated data is accessible by Heads of Discipline/Program Directors, Course Conveners and Unit Conveners at the specific levels for which they are responsible. All staff are responsible for regularly reviewing this data and responding, in a timely fashion, to any issues of concern or requirements for additional support needed by students.

(26) Dashboards enable Unit Conveners to engage with their students, respond to feedback provided by students, and review their students 'at-risk' and 'engagement' with their learning materials, activities and assessments.

(27) Course Conveners, Heads of Discipline/Program Directors and Associate Deans, Education (ADEs) must ensure that their staff regularly review the data provided in their dashboards, and are responding to them, with the primary goal of responding to student academic needs, increasing engagement and improving the student experience.

(28) The dashboards provide all executives with data, which includes: total student numbers defined by risk category, satisfaction, and demographics, by faculty, discipline, course and unit. Executives should monitor these reports to determine if there are any significant concerns that may require issues to be addressed.

(29) Intervention will occur at any point where a student is defined, whether through learner analytics or other means, as being at risk of non-satisfactory academic progress. Other means may include consideration of academic, welfare, social/personal factors.

(30) Staff in teaching teams are likely to be the first to be aware of students requiring additional support, however, other staff may be made aware of a student having difficulties in their studies where they may require intervention. Students should be provided with advice on the support services available.

(31) In instances where intervention is required, the Unit Convener in the first instance should be contacted once a student has been identified as being at risk of non-satisfactory academic progress.

(32) It is also recommended that staff continue to encourage students who are in the low-risk cohorts, and congratulate cohorts on their achievements.

## Privacy

(33) Comments submitted by students in their dashboard will be displayed pseudonymously in the Unit Convener dashboard. Where comments raise concerns for student safety, or may be considered to breach expected language and respect at the University, these will be removed from the dashboard and subsequently submitted with the student identifier to senior staff to allow the student to be contacted as necessary.

(34) Overall analysis of students' satisfaction comments, extracted via the dashboards, will not include student names, numbers, or other identifying information.

(35) The executive level dashboard will display student identifiers to allow senior staff to contact students, when necessary, to improve their educational experiences.

# Section 5 - Roles and Responsibilities

| Who | Responsibility |
|---|---|
| Students | • Seek assistance and provide relevant information to the University to allow their needs to be supported.<br>• Check and respond to their University email frequently and should be aware of their administrative responsibilities (as detailed in the Student Charter, DITM and Records Management Policy Manual, unit outlines and other course material as provided).<br>• Participate actively and positively in the teaching-learning process and comply with the requirements of their course or unit of study.<br>• Monitor learning analytics to self-track academic achievement and course progress.<br>• Respond to learning analytics to adapt engagement activities and adjust study habits.<br>• Provide teaching staff with constructive and actionable feedback on the student experience. |
| Learning & Teaching | • Oversee the incorporation and ongoing improvement of learning analytics systems.<br>• Monitor learning analytics to ensure system-level feedback is identified and responded to appropriately.<br>• Provide staff training and development opportunities in monitoring and responding to learning analytics.<br>• Monitor learning analytics to inform the Deputy Vice-Chancellor (DVC)of features that indicate strengths and weaknesses in the University's learning environment.<br>• Assist staff to employ learning analytics to inform recognition and advancement strategies associated with teaching excellence.<br>• Provide learning and scholarly information and resources related to learning support, access to learning resources and materials to University staff (and partner staff where relevant).<br>• Produce annual reports (from learner analytic summaries), as defined in these Procedures, (or by teaching period if required) to give an overview of the summarised data and report on key trends or areas of concern, as outlined in this document.<br>• Provide ongoing staff development and training to academic staff in relation to learner support and the intervention strategy.<br>• Ensure that staff receiving analytic reports are aware of their obligations to refer students to the relevant support services, and can interpret data and reports. |
| Unit Conveners | • Target support for those who need it and refer students to the relevant support services in a timely way.<br>• Engage with Learning & Teaching training and information on the interpretation of learner analytics reports and active support of students' learning.<br>• Monitor learning analytics to support students' academic achievement and course progress.<br>• Respond to learning analytics to support students to adapt engagement activities and adjust study habits.<br>• Implement intervention strategies that address possible risk factors identified via learning analytics and promote student success.<br>• Activate a dynamic learning environment that is responsive to student feedback, evidence-based and reflective.<br>• Employ learning analytics to prompt and evaluate continuous improvement of the quality of teaching and inform professional development. |

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| Who | Responsibility |
|---|---|
| University of Canberra College | • Identify students at risk of not making satisfactory progress as defined in this Procedure.<br>• Advise the Unit Convener/Course Convener, for action as required. |
| Program Directors / Course Conveners | • Provide course-level advice and ensure that there are appropriate communications within course materials/background information to inform students of support services available at the University.<br>• Monitor course level aggregated learning analytics including summary data of student risk categories, and take action as required.<br>• Monitor learning analytics for all units in the program to gain an overall understanding of the student experience.<br>• Ensure teaching staff in the program to respond effectively to learning analytics information.<br>• Employ learning analytics to assist with course design and coherence.<br>• Monitor learning analytics to quality assure (benchmark and moderate) unit and course level outcomes.<br>• Monitor learning analytics to compile reports using comparative internal and external datasets (e.g. QILT). |
| Associate Deans, Education | • Monitor executive level aggregated learning analytics including summary data of student risk categories, and take action as required. |
| Faculty Supervisor | • Employ learning analytics and teaching staff responses to learning analytics to inform professional discussions and performance reviews. |
| Executive Staff | • Monitor learning analytics to generate University-wide improvements that strengthen teaching and partnerships.<br>• Monitor learning analytics to improve system level processes and procedures that impact upon the student experience.<br>• Monitor learning analytics to address key performance indicators relating to engagement (risk) and retention (success). |
| Information Technology Management | • Support the integration of InterFace with the virtual learning environment and administration systems.<br>• Undertake testing of integrations and new components of the dashboards and enhancements.<br>• Report to the Deputy Vice-Chancellor on status of InterFace system developments.<br>• Respond to stakeholder requests for fixes/enhancements - gathering requirements for InterFace developments. |
| Chief Operating Officer and Vice-President Operations (COO) | • Notify staff of the University's obligations under ESOS.<br>• Ensure that systems are able to accurately capture data on student results to allow for input into the learner analytic software. |

# Section 6 - Definitions

| Term | Meaning |
|---|---|
| Learning analytics | "the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs." – Definition from the Learning Analytics and Knowledge conference, 2011. |
| Data | Any quantitative or qualitative data either provided to the University by students or derived from internal data sources, this may include data derived and analysed from multiple sources. |

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## Status and Details

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