

Policy on the Use of Data to Enhance Teaching, Learning and Assessment (Learning Analytics)

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1 Introduction

One of the strategic goals of the University of Limerick (UL) is to transform education using educational technology and the deployment of data-driven learning analytics tools. The aim of the use of these tools is to facilitate access to active and personalized learning and to promote better student engagement with their learning. In developing this policy, every consideration has been given to ensuring that the rights of students and staff are upheld in accordance with the University's equality and human rights strategy and that the data is used in accordance with the University's staff and student privacy policy and other relevant policies.

Building on previous work of the National Forum for Enhancement of Teaching and Learning for student success¹ and the <u>SHEILA</u> project, this policy was developed in consultation with UL staff and students and was funded by the Strategic Alignment of Teaching and Learning Enhancement fund (2019). Consultation included workshops, staff survey, staff focus groups and student focus groups.

1.1 Purpose

The purpose of this policy is to outline the University's position on the use of data gathered from its IT systems as defined in Section 3 to support and enable student learning, and to enhance curriculum development, teaching and service delivery.

1.2 Scope

1.2.1 To whom does this policy apply

This policy applies to all staff and students of the University and its subsidiary organisations.

1.2.2 In what situation does this policy apply

This policy applies to the use of student data gathered from IT systems as defined in Section 3 used by the University, for the purposes of enhancing Teaching, Learning and Assessment, institutional research and for quality assurance/quality enhancement purposes. This data will be referred to as 'TLA dataset(s)' for the purposes of this policy.

This policy excludes the use of student data for academic research purposes. Access to the TLA dataset for research involving publication should be progressed using the <u>Operating Guidelines for</u> the Governance and Oversight of Research Ethics

1.2.3 Who is responsible for ensuring that the policy (and any associated procedure) is implemented and monitored?

The Provost and Deputy President has overall responsibility for the implementation and monitoring of this policy. In addition, the roles defined in Section 3 have specific responsibilities.

2 Context

2.1 Legal & Statutory Context

This policy supports the objects and functions set out in the University's Act (1997) and complies with the requirements of the following legislation and guidelines:

¹ See National Forum ORLA and DESSI projects

- QQI statutory core guidelines for quality assurance
- General Data Protection Regulation (GDPR) / Data Protection Acts 1988-2018
- Universities Act (1997)

3 Definitions

Learning Analytics (LA)² refers to the use of student data to understand and enhance teaching and learning with a view to optimising student success. Its aim is to provide accurate and actionable insights into the learning process through the exploration, modelling and aggregation of relevant data and to provide an evidence base for optimising the conditions in which learning can flourish (NFETL, 2017).

For the purposes of this policy *IT systems* are defined as the following:

- The virtual learning environments (VLE, any online-based platform that offers digital solutions to enhance the learning experience)
- The student records system (SITS) and SI Portal
- The library management system
- Survey and polling applications approved through the University's Cloud Governance Committee
- Customer relationship management systems
- Data Warehouse
- Any other IT system used for teaching, learning and assessment.

Institutional Research³ is defined as the application of social and enterprise research methods to improve *institutional effectiveness* by transforming institutional and other data into valid, reliable and useable information (IUQB, 2008, p.13).

3.1 Role Definitions

The following definitions outline the specific roles involved in the use of data and development of appropriate reports from datasets and/or composite datasets⁴:

A **Data Owner** is a senior stakeholder who is accountable for the quality of one or more datasets. They are usually a senior person who has the resources, budget and authority to be able to make changes to that data if necessary.

A Data Steward is responsible for the quality of a defined data set

Data Custodians are responsible for maintaining data on the IT infrastructure in accordance with business requirements set out by the Data Owner and in line with University policy.

² This definition is taken from National Forum for Enhancement of Teaching and Learning (2017) *Using Learning Analytics to Support the Enhancement of Teaching and Learning in Higher Education*. It is acknowledged that this definition may not be universally accepted within the University and that this may evolve as the use of data to enhance learning matures.

³ IUQB (2008) Good Practice for Institutional Research in Irish Higher Education

⁴ Where data is taken from individual systems and merged with other data into a new dataset

Data Engineer (DE) – Designs and develops an automated process to populate a data model within the data warehouse using source data. A data engineer can access "raw data" appropriate to the processing activity.

Subject Matter Expert (SME) – person with relevant domain knowledge that is involved up to the point where the data is populated in the dataset. The SME an access "raw data" appropriate to the processing activity.

Raw data ("unprocessed data")

Raw data is a collection of numbers or characters before it has been "cleaned" and corrected by researchers. Raw data needs to be corrected to remove outliers or obvious instrument or data entry errors.

Report

Data reporting ⁵("the report") is the process of collecting and formatting raw data and translating it into a digestible format to assess the ongoing performance of a matter under investigation..

Report editor (RE) - person who can access the dataset to create reports, using the University approved selected reporting tool. The report editor cannot access "raw data".

Report Reviewer (RR) – person who can access draft versions of reports created by report editor. Usually, stakeholder input and validation activity.

Report viewers (RV) – standard end-user can use interactive dashboards/reports to view aspects of the data. Data available may be restricted to particular roles. The report viewer cannot access the "raw data".

Report business owner - person who has overall responsibility for the report such as a Unit Director/Vice President. The report business owner has relevant domain knowledge, takes responsibility for validation of the report and decision on access to the <u>report</u> (but not the underlying dataset – see recommendations below). Works closely with the SME / delegates to SME.

4 Policy Statement

Data that is gathered through the interaction of students and staff with IT systems is used for the following purposes:

- to enable, enhance and support student learning.
- to manage and monitor student progression through their programme of study.
- to enhance curriculum development, teaching and service delivery.
- to provide feedback to teaching staff on how students interact with their modules and courses.

This policy is informed by the following principles:

4.1 General Principles

⁵ https://www.sisense.com/glossary/data-reporting/

4.1.1 Student-centred

Analysis of data shall be used to improve and enhance student learning, to provide support and individualised feedback to students.

Data may be used to enable alerts, signposting to resources and services and to enhance group and one-to-one interactions between students and staff.

Students shall be provided with appropriate training and information on the use of any personalised feedback provided.

4.1.2 Staff-led

Staff will be encouraged to lead on and contribute to the evolution of learning analytics at the University.

4.1.3 Ethical and Transparent use

Data shall be used fairly and for a defined purpose. Students and staff shall be provided with information and clarity regarding the purpose of collection and possible use of data in the student privacy notice. As a University resource, staff use of TLA datasets must be used in accordance with the University's Code of Conduct for Employees.

4.1.4 Data Management and Ownership

The University shall identify a data owner, data steward and data custodian for each of the datasets available for analysis. This shall be described in the Systems Reporting and Access matrix (Appendix 1) and shall be available from the Office of the Provost and Deputy President.

4.1.5 Data Security:

The University shall ensure that data is created, used and maintained in a secure environment in accordance with the University's IT Security Policy, using systems that have been approved through the University's Cloud Governance Committee/ relevant governance structure.

4.1.6 Access to 'TLA dataset' available centrally in the Data Warehouse

Where a staff member has access to data held in individual data systems on an *ex-officio* basis, access shall be governed and managed in accordance with relevant procedures⁶ and the University's IT Acceptable Usage Policy.

Access may be granted on an *ex officio* basis where this is necessary to fulfil the requirements of the role undertaken by a staff member of the University. This includes but is not limited to:

- o core university operations such as teaching, learning and assessment
- o reports, such as progression analysis, recruitment analysis etc.
- o quality assurance and quality enhancement activities.

Data requestors shall be cognisant of their responsibilities in terms of maintaining confidentiality of data and ensuring that data is used only for the prescribed purpose.

⁶ e.g. ITD User Access Control Procedures, ITD Network Security and Remote Access Procedures, ITD Mobile Device Management Procedures and ITD Disaster Recovery Procedures, Procedures for the MSS, Procedures for the Exit Survey, studentsurvey.ie

In cases where *ex-officio* access is not available to an individual and access to an existing composite dataset is required, an access request must be made to the *Data Oversight Governance Committee* (DOGC), a sub-committee of [Education & Student Experience Committee] using the agreed procedures.

4.1.7 Use of composite datasets outside of the Data Warehouse

The University encourages the use of centralised data available in the Data Warehouse while acknowledging that there may be business cases for the use of composite datasets outside of the warehouse. Staff compiling composite datasets must apply the principles outlined in this policy. In particular, to ensure that the principle of transparency is adhered to. If data from multiple sources is being joined, the staff member must declare their intention to join datasets to the data owners when requesting data.

4.1.8 Accuracy & Validity:

Every effort shall be made to ensure that data collected at source is accurate. Any actions, decisions or interventions shall beundertaken should be on the basis of reliable, representative and valid datasets.

4.1.9 Staff Development

Staff using and interpreting TLA datasets shall be provided with the required training to correctly interpret the findings from the datasets

Staff using and interpreting the TLA datasets shall be provided with the required training to communicate the findings from these datasets to individual students and to groups of students

In addition to the foregoing, individual academic staff may seek the assistance of the Centre for Transformative Learning to address matters identified by interrogation of the TLA datasets.

4.1.10 Communication:

Students shall be provided with information on how their data is collected and used during induction sessions and reminded of this on a regular basis.

4.1.11 Feedback and Interventions

A decision to provide an intervention should be considered in the context of a number of variables rather than as a result of a single variable. These variables shall be agreed in consultation with all relevant stakeholders depending on the purpose of the intervention. This does not preclude staff from engaging with and providing feedback to students in the usual manner.

Interventions with students as a result of the interpretation of TLA datasets shall be delivered to students in a timely, positive and helpful manner.

Using national guidelines, the University shall develop local guidelines for staff on how feedback and interventions shall be approached.

4.1.12 Interoperability:

The University shall work towards creating a dataset with common data definitions to facilitate appropriate access by staff to support student success.

4.1.13 Actionable

Procedures shall be developed to ensure that data included in the TLA datasets provides information that is relevant and actionable in order to provide appropriate feedback to relevant stakeholders in accordance with the Student Evaluations Policy.

5 Procedures

Procedures for approving access to data in the TLA datasets Procedures to adding data to the TLA datasets

6 Related Documentation

Guidelines in Support of Research Ethics

IT security policy

The University's Data Protection Policy

User Access Control Procedure

https://www.teachingandlearning.ie/resource/student-intervention-guide-2/ and

https://www.teachingandlearning.ie/resource/designing-automated-interventions-communications/

7 Policy Review

This policy shall be reviewed within one year of adoption or on the publication and adoption of the University Teaching and Learning Strategy and Student Success Strategy to incorporate any amendments arising from those strategies, whichever is the sooner.

8 Document Control

Document Version	0.2			
Document Owner	Provost and Deputy President			
Approved by	Education and Student			
	Experience Committee			
Date	15 June 2021			
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9 Appendix 1: Systems Reporting and Access Matrix Template

Dataset	Purpose	Source Systems	Data Processors	Frequency	Data Steward	Data Owner	Data Custodian
Name of dataset							

Terms of Reference

- 1. The DOGC is responsible for assessing and approving applications for access to the TLA datasets
- The DOGC will develop criteria and procedures to evaluate applications for access to the TLA datasets
- 3. The DOGC will provide an annual report to the Education and Student Experience Committee

Remit

The DOGC may advise the Education and Student Experience Committee and other relevant committees of the University on matters relating to the access to and use of the TLA datasets.

Governance

The Committee will act with authority, as delegated by Education and Student Experience Committee in order to authorize access to the TLA datasets.

In taking forward its remit, the Committee will support equality, diversity and inclusion and strive for gender balance. It will seek consistency and common approaches, where these are in the best interests of students and staff.

The Committee will liaise closely with other Committees of the Executive Committee, Academic Council and other University Committees as appropriate.

The Committee shall identify and agree the ways in which it will interact and exchange information with relevant academic units and professional support services in matters relating to non ex officio access to the TLA datasets.

Operations

The DOGC will meet as frequently as required and may carry out its function electronically.

Composition

Role	
Chair	Nominated from Education and Student
	Experience committee
Data Protection Officer	Ex Officio
ULREG representative	
ITD representative	
CTL representative	
Academic Registry representative	