



Student Evaluation and Learning Analytics Project StELA

Final Report



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Executive Summary

The Student Evaluation and Learning Analytics (StELA) project was initiated to provide a policy basis for the use of data to enhance student success at the University of Limerick. The University has identified the use of ‘learning analytics’ (LA) to enhance teaching and learning and provide personalised feedback to students as part of its academic transformation strategy and strategic plan.

The StELA project sought to investigate staff and student views on the use of LA within the university and to determine if datasets other than survey data could be used to provide feedback to enhance teaching and learning.

The activities of the StELA project which took place between October 2019 and May 2021 were divided into four workstreams as shown in Table 1.

Student engagement	Staff engagement	Technical	Policy
<i>Student views on LA via survey and focus groups.</i>	<i>Staff views via institutional workshop, survey and focus groups.</i>	<i>Develop dashboard-based prototype using MSS, exit survey, progression data and studentsurvey.ie datasets.</i>	<i>Develop survey policy and policy on the use of data to enhance teaching, learning and assessment</i>

Table 1: Four workstreams within the StELA project

The main findings from the workstreams are shown in Table 2 and categories under four heading

- Data Use – concerns of students
- Data Use – concerns of staff
- Data Governance
- Student Evaluation

These findings support the creation of policy, the continued engagement of staff and students in building credibility in data and feedback mechanisms and the need to collect and present data that is accurate, understandable and easy to read.

Data Use (Students)	Data Use (Staff)	Data Governance	Student Evaluation/Feedback to the University
Students want to know how and why their data is collected	Build on existing work and expertise	Clarity is required on what data is available and who as access to it	Opportunity to provide anonymous feedback on their learning experience is valued
Students, especially undergraduates welcome intervention to avoid failure or to improve learning practices	Data should be used to answer a specific question	Data is a strategic asset	Evidence that feedback has been acknowledged and heard would encourage student participation
Interventions should be made in a positive manner	More work is needed on institutional	Formal but agile mechanism is required to	Preference on the tools used to communicate feedback vary from

Data Use (Students)	Data Use (Staff)	Data Governance	Student Evaluation/Feedback to the University
	definitions relating to learning analytics	approve access to and use of datasets	email, face to face or social media
Tools used to provide feedback to students should be selected with care	Broad agreement on use of data for enhancement and identifying students at risk		

Table 2: Main Findings

The recommendations from this project are categorised and summarised below. The recommendations are outlined in detail in Section 8. Work has commenced on progressing a number of these recommendations.

Policy and Strategy

- Develop a **learning analytics policy** that provides the basis for the use of existing data.
- Develop a **survey policy** that provides a framework to manage student evaluation mechanisms
- Develop and implement **learning analytics strategy**

Development and Capacity Building

- Development of a **student resource** to explain how and why student data is held and used
- Development of **staff resources** on how to use available datasets effectively to enhance their teaching.
- Support a **community of practice**
- Test the **implementation of learning analytics policy using StELA Live**
- Through a working group, investigate and **recommend amendments to existing University evaluation mechanisms**

Data Governance

- Enhanced **data quality**
- Create a **Systems, Reporting and Access Matrix** for datasets.
- Create **Data Oversight Governance Committee**

Table 3 Recommendations and future actions

1. Introduction

The Student Evaluation and Learning Analytics (StELA) project was initiated to provide a policy basis for the use of data to enhance student success at the University of Limerick. The University has identified the use of ‘learning analytics’ to enhance teaching and learning and provide personalised feedback to students as part of its academic transformation strategy and strategic plan, UL@50.

Survey data is relied on within the University as a core student feedback mechanism and source of learning analytics data at a service, programme or module level. Three institutionally sponsored surveys, the Exit Survey, the Module Satisfaction Survey (MSS) and the studentsurvey.ie (formerly ISSE) are run annually. Response rates for most of these mechanisms has declined over a number of years with student representatives reporting survey fatigue and lack of clarity on whether feedback provided had been acted upon.

Figure 1 outlines student satisfaction with the indicators used in the university exit survey to measure satisfaction with feedback mechanisms from 2013-2019. While there is evidence that students have opportunities to provide feedback, there are low levels of satisfaction with how that feedback is listened to and actioned on.

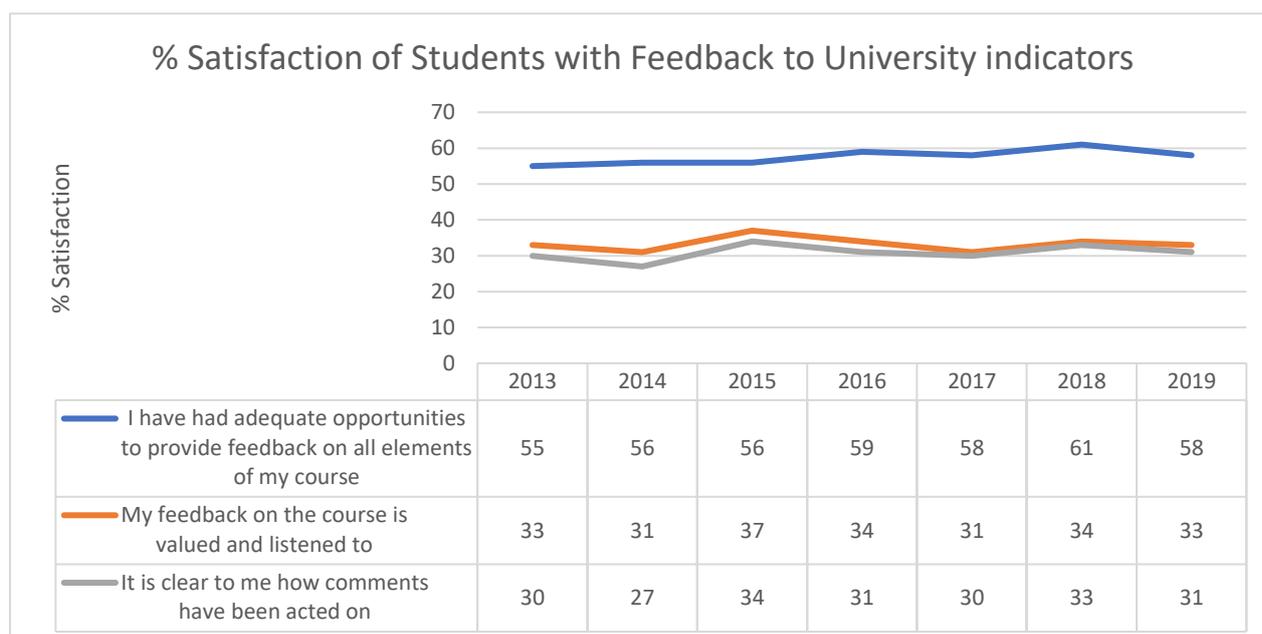


Figure 1: Percentage Satisfaction of Students with Feedback to University Indicators

The Student Evaluation and Learning Analytics (StELA) project was funded by the National Forum for Enhancement of Teaching and Learning under the 2019 Strategic Alignment of Teaching and Learning Enhancement (SATLE) fund.

The project was approved by the Faculty of Arts, Humanities and Social Sciences Ethics Committee, application number 2020-02-01-AHSS.

Building on the work of the National Forum on learning analytics through projects such as ORLA and DESSI and using resources from the European Commission funded SHEILA project, the project sought to investigate:

- staff and student views on the use of learning analytics within the university and
- if datasets other than survey data could be used to provide feedback to enhance teaching and learning. The datasets chosen for the initial pilot were the MSS, the exit survey and progression data.

The project team sought feedback from staff and students using survey and focus groups. The findings are presented using the themes that were developed as part of the SHEILA project.

2. Project Organisation

The project team was drawn from the Quality Support Unit, Centre for Transformative Learning (CTL), Data Protection Office and the Information Technology Division (ITD). The team members are

- Sinéad O’Sullivan, Director of Quality, Quality Support Unit
- Dr Natalie Nic an Ghaill, Quality Research Officer, Quality Support Unit
- Dr Angelica Risquez, Learning Technologies and Learning Analytics Lead, CTL
- Sarah Gibbons, Education Developer, Student Engagement and Success, CTL
- Dominic Burns, Head of Business Intelligence Unit, ITD
- Kristofer Harte, Education Technologist, ITD
- Derval Howlett, Data Protection Officer, Corporate Secretary’s Office

The contribution of Dr Maeve Lankford in facilitating the focus groups and in contributing to this report is acknowledged, as is that of Kim O’Mahoney and Ruth Corless of QSU who carried out the survey inventory for the project.

The activities of the project were divided into four workstreams:

- Student engagement workstream
- Staff engagement workstream
- Technical Workstream
- Policy Workstream

The project commenced in November 2019 but was suspended from March-September 2020 due to the COVID-19 pandemic. .

3. Methodology

A mixed methods approach was selected using the approach taken by the SHEILA¹ project. This approach was selected as the project team was aware of another initiative within Ireland using the

¹ See www.sheila.eu for further information

approach and comparisons could be made within Ireland and internationally. The SHEILA approach included the use of:

- Staff and student surveys
- Staff and student focus groups
- Senior management interviews.

The StELA project initially planned to undertake all aspects of the SHEILA approach but due to the impact of the COVID-19 pandemic, the student survey and senior management interviews were not included in the methodology.

3.1. Institutional Workshop

The project was launched on the 23rd January 2020 with a half-day workshop facilitated by Lee O’Farrell from the National Forum. The workshop brought together 44 staff from across the university with representation from academic staff, student support, professional services, senior management and student representation. The outcomes of that workshop indicated that there was a community of practice interested in using data to support teaching and learning and student success, however there were a number of factors that had to be considered. Consensus developed around **the focus on institutional behaviour** on the following:

- Encouraging **student engagement from a holistic perspective** (including the extra-curricular dimension)
- **Building credibility with students** on use of data/affinity with institutions
- **Demonstrating impact** of a given feedback mechanism to students (close the ‘feedback loop’)
- Using data to transform operational decisions and recognise success factors.

Another outcome of this workshop was the development of a set of principles by which data should be used:

- Student-centred
- Ethical and transparent
- Interoperable
- Actionable
- Accuracy and validity
- Security

The full report of the [institutional workshop](#) can be found on the project website.

3.2. Staff Survey

The staff survey was adapted from the SHEILA project. An invitation was issued by email to all staff in of November 2020. There were 92 respondents of which 62 completed the survey. The survey questions are included in Appendix 3.

3.3. Focus Groups

The development of student and staff focus group questions was informed by existing focus group themes used in the SHEILA project. The latter mainly focussed on the use of data as a feedback tool to students and referred to attitudes about how that data may be/can be/should be used. The staff questions in the SHEILA project touched on how that data can be used to enhance teaching & learning.

Questions for student focus groups were developed iteratively by members of the project team and the focus group facilitator. The final set of questions are set out in Appendix 1 (Student) and Appendix 2 (Staff).

Two parallel sets of focus groups were set up to run in November 2020 and December 2020. The focus groups were facilitated by Dr Maeve Lankford who was recruited using a tender process during September 2020. The recruitment of an external facilitator was deliberate to allow participants, especially staff members express their views openly and not be constrained by the presence of project team members.

Students were invited by email where an email was sent to each cohort of 1st year undergraduate students, 2nd year undergraduate students, 3rd year undergraduate students, 4th year undergraduate students, taught postgraduate students and research students. Students were offered a one4all gift voucher of €20 for participating.

A focus group was set up for each cohort, with two additional mixed groups. In all, a total of 7 student focus groups were conducted between 18 and 23 November 2020, with 47 students participating overall. Participants were drawn from all undergraduate years and from amongst taught and research post-graduate programmes. There was one focus group per year of undergraduate study, one postgraduate focus group and two focus groups with participants from mixed undergraduate or postgraduate years.

Staff were also invited by email to attend focus groups and groups were created according to participants' availability. In total, 31 staff participated in 6 focus groups between 1 and 10 December 2020. There were 5 mixed groups comprised of a mix of academic and professional services staff from multiple disciplines and across different service areas within the University. There was one management focus group consisting of managers in central services and heads of department.

Both staff and student focus groups respectively were conducted online, using Zoom. Focus groups were recorded onto the facilitator's Zoom account and automatically transcribed via the Zoom facility for same. The recordings and transcripts and any inputs into the chat function were available to the facilitator only and were deleted after submission of the final focus group reports.

In general, there was good participation and engagement from all attendees in both staff and student focus groups. In all instances, participants were provided with an information sheet and requested to formally agree to participation in the focus group. They were also advised that their attendance was being noted and confirmed to the project lead.

In both staff and student focus groups questions related to broad themes previously identified in the SHEILA project. These themes were:

- Transparency
- Purpose
- Use of data
- Feedback to students
- Feedback from students
- Ethical concerns, including consent and ownership of data
- Autonomy, intervention and obligation to act.

An analysis of similarities and differences between staff and student responses under these broad themes is provided in Section 5 below. Detailed individual reports for the staff and student focus groups are available from the project website.

4. Analysis of Staff Survey Data

Although 93 staff members responded to the survey, only 62 completed it. Of those that completed the survey, 45% were academic staff, 8% were staff such as learning technologists, librarians and education developers and 8% held an academic management role. 21% of staff self-declared as ‘other’. There were staff who self-declared as PhD researchers, student representatives, university teachers and tutors. (Table 3)

Category of Staff	No. of Respondents	%
Academic Staff	28	45%
Other	13	21%
Professional & supports services staff	9	15%
Staff with other roles that also teach (e.g. librarian, education developer, learning technologist)	5	8%
Academic Manager (Dean, Head of School, Head of Dept, Assistant Dean)	5	8%
Prefer not to say	2	3%
Academic Department Admin staff	0	0%
Total	62	100%

Table 3: Survey respondents by staff categorisation

Table 4 shows that faculty representation was well balanced.

Answer	%
Faculty of Arts, Humanities and Social Sciences	27%
Faculty of Education and Health Sciences	24%

Faculty of Science and Engineering	30%
Kemmy Business School	18%

Table 4: Faculty Representation among Respondents (note % rounding results in non 100%)

4.1. Structures and Policy for the Use of Data

Respondents were asked to provide their agreement on a five-point Likert scale ranging from **Strongly Agree to Strongly Disagree** with a series of statements on structures for policy, and on the use of data that should be in place within the University. These statements refer to the university's responsibilities for the provision of and use of student data to support learning. The statements were formulated as follows:

‘Ideally the university will ‘<statement>’ for each of the statements as laid out in Table 3 e.g. *Ideally the university will collect and present data that is accurate.*

Table 5 is ordered by the percentage of respondents who ‘strongly agree’ with the statements presented. On this ordering, ‘*the collection and presentation of data that is accurate*’ and ‘*the facilitation of discussions on the enhancement of teaching and learning*’ are considered as the two most important structural and policy matters respectively.

Ideally the University Will	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	n	Agree+ Strongly Agree
Collect and present data that is accurate	6%	2%	4%	23%	66%	53	89%
Facilitate open discussions to enhance learning and teaching	4%	2%	6%	27%	62%	52	89%
Provide me with opportunities for professional development	4%	0%	6%	33%	57%	51	90%
Regularly update students about their learning progress	4%	4%	4%	42%	47%	53	89%
Have an obligation to act (support students)	4%	0%	9%	42%	45%	53	87%
Show how a student's learning progress compares to their/their course learning outcomes	4%	10%	12%	38%	37%	52	75%
Provide me with guidance on how to access student data	8%	0%	8%	47%	37%	51	84%
Present students with a complete profile of their	6%	9%	15%	38%	32%	53	70%

engagement with learning materials and activities							
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Table 5: Structure and Policy Requirements (Strongly Agree)

When the numbers of respondents who ‘Agree’ and ‘Strongly Agree’ are added to together, however, the requirement to provide opportunities for professional development moves to the top as a structural requirement. (Table 6). When these values are combined, statements 1 to 5 are almost equi-weighted, showing where most value would be perceived in structures and policy.

Ideally the University Will	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree	n	Agree + Strongly Agree
Provide me with opportunities for professional development	4%	0%	6%	33%	57%	51	90%
Collect and present data that is accurate	6%	2%	4%	23%	66%	53	89%
Facilitate open discussions to enhance learning and teaching	4%	2%	6%	27%	62%	52	89%
Regularly update students about their learning progress	4%	4%	4%	42%	47%	53	89%
Have an obligation to act (support students)	4%	0%	9%	42%	45%	53	87%
Provide me with guidance on how to access student data	8%	0%	8%	47%	37%	51	84%
Show how a student's learning progress compares to their/their course learning outcomes	4%	10%	12%	38%	37%	52	75%
Present students with a complete profile of their engagement with learning materials and activities	6%	9%	15%	38%	32%	53	70%

Table 6: Structure and Policy Requirements (Agree & Strongly Agree)

4.2. Interaction with and use of data

98% of staff either strongly agreed or agreed with the statement, ‘*Ideally I will be presented with data in a format that is both understandable and easy to read*’. This was followed by 86% agreeing with the statement, ‘*Ideally I will be appropriately trained and the ability to access and understand data about students’ learning*’. As shown in Table 7, respondents either *agree* or *strongly agree* with most of the statements below. Of note is the distribution of opinion on the statement “*Ideally I will be able to access data about any student*’ with 34% selecting either disagree or strongly disagree that access should be provided where 50% of staff agree that access to data about any student should be made available.

Ideally I will be	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly Agree
Presented with data in a format that is both understandable and easy to read	2%	0%	0%	39%	59%
Appropriately trained in incorporating analytics into the feedback and support I provide to students	4%	4%	6%	35%	51%
Better able to understand my students' learning and engagement with learning materials	2%	4%	2%	43%	49%
Able to access data about my students' progress	4%	2%	4%	45%	45%
Able to access data about any student	19%	15%	15%	27%	23%

Table 7: Interaction with and use of data

4.3. Use of and Access to Data

Participants were asked to rank the importance of the use of educational data where 5 is deemed to be very important and 1 to be not at all important.

Use of data	1	2	3	4	5	n
Identifying students who are struggling	0%	0%	9%	15%	75%	53
Allowing students to track their own progress	0%	0%	10%	31%	60%	52

Use of data	1	2	3	4	5	n
Identifying students who are disengaged	2%	2%	19%	23%	54%	52
Enhancing Individual student experience	0%	2%	25%	19%	54%	52
Highlighting useful resources to students	0%	2%	13%	35%	50%	52
Improving service quality	0%	2%	13%	38%	47%	53
Informing you about your teaching practice	0%	8%	21%	25%	47%	53
Providing evidence to inform policy	4%	4%	25%	24%	43%	51
Enhancing courses and modules	0%	4%	20%	35%	41%	54
Improving quality of feedback on assessment	2%	4%	19%	35%	40%	52
Triggering an intervention with a student	4%	6%	23%	33%	35%	52
Improving timeliness of feedback on assessment	2%	2%	22%	42%	32%	50
Providing information on cohort differences	4%	16%	20%	29%	31%	49

Table 8: Importance of data

Table 8 provides insight into where staff see priorities of using such data where identifying student related needs are deemed to be more important.

This order of priority shifts a little as demonstrated in table 9 when rankings 4 and 5 are considered together. Identification of students who are struggling as well and allowing students to track their progress remain the most important, however the improvement of service quality and the enhancement of courses and modules become more important.

Use of data	1	2	3	4	5	n	4+5
Identifying students who are struggling	0%	0%	9%	15%	75%	53	91%
Allowing students to track their own progress	0%	0%	10%	31%	60%	52	90%
Improving service quality	0%	2%	13%	38%	47%	53	85%
Highlighting useful resources to students	0%	2%	13%	35%	50%	52	85%
Identifying students who are disengaged	2%	2%	19%	23%	54%	52	77%
Enhancing courses and modules	0%	4%	20%	35%	41%	54	76%
Improving quality of feedback on assessment	2%	4%	19%	35%	40%	52	75%
Improving timeliness of feedback on assessment	2%	2%	22%	42%	32%	50	74%
Enhancing Individual student experience	0%	2%	25%	19%	54%	52	73%
Informing you about your teaching practice	0%	8%	21%	25%	47%	53	72%
Triggering an intervention with a student	4%	6%	23%	33%	35%	52	67%
Providing evidence to inform policy	4%	4%	25%	24%	43%	51	67%
Providing information on cohort differences	4%	16%	20%	29%	31%	49	59%

Table 9: Importance of data rankings 4 and 5

4.4. Legitimate Sources of Data

Respondents were asked to consider what they thought were legitimate sources of data for them to access from a range of university sources. Participants could choose as many sources as they wished. As outlined in Figure 2 below, 87% of responses referred to access to assessment data, with use of the VLE (73%) and access to progression, retention and completion data following (71%)

When viewed by category of staff, access to assessment data (97%) and progression, retention and completion data (78%) are selected by academic staff and staff who teach.

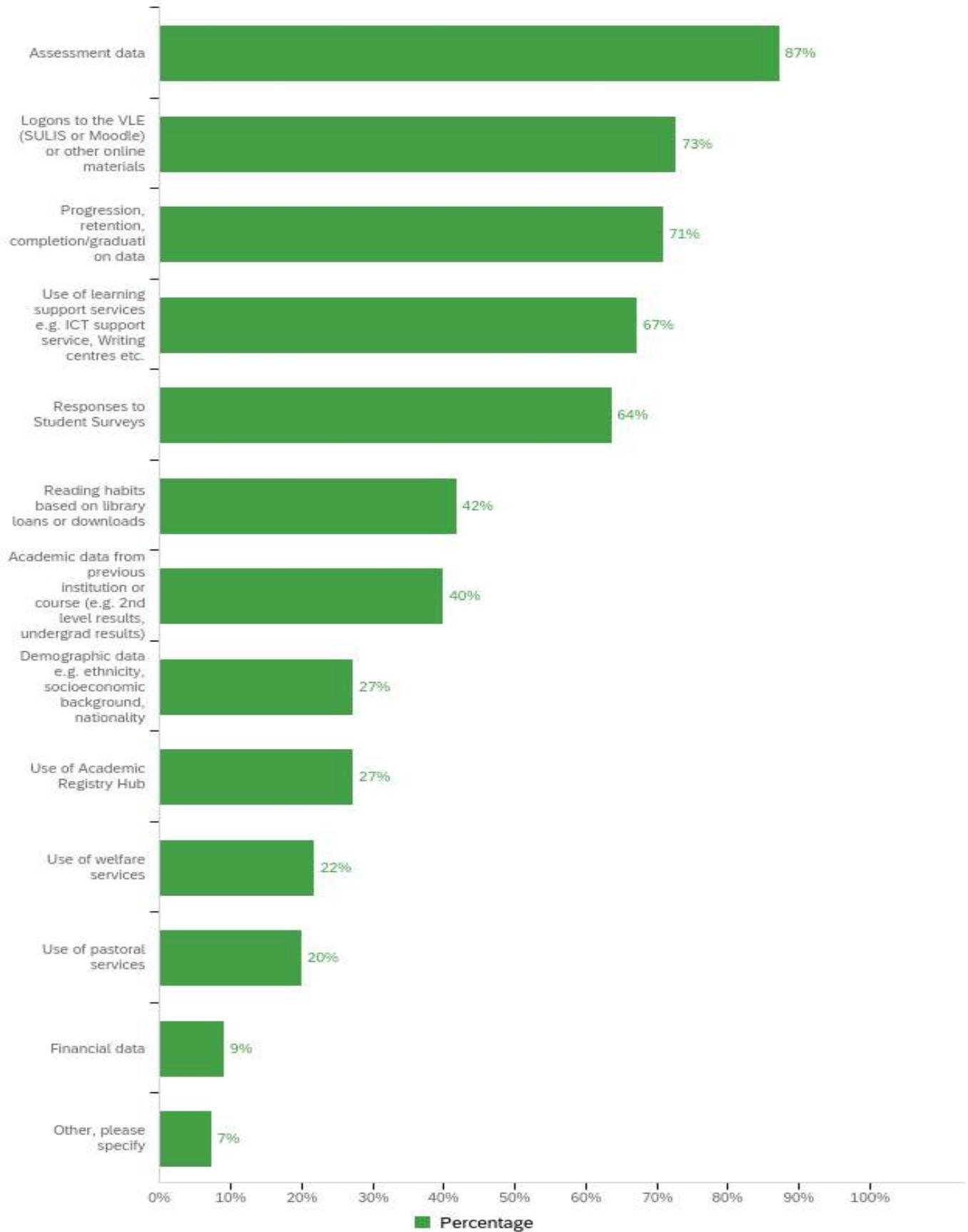


Figure 2: Legitimate Sources of Data – all respondents

Access to student pastoral, financial and welfare data is seen to be a valid source by fewer respondents. When broken down by category of respondent access to this data is considered as a legitimate source of data by professional and support staff.

As would be expected, professional services staff put less emphasis on access to assessment data (Figure 3) with use of learning centres (89%), use of the VLE (78%) and responses to student surveys (78%) featuring highly in their responses.

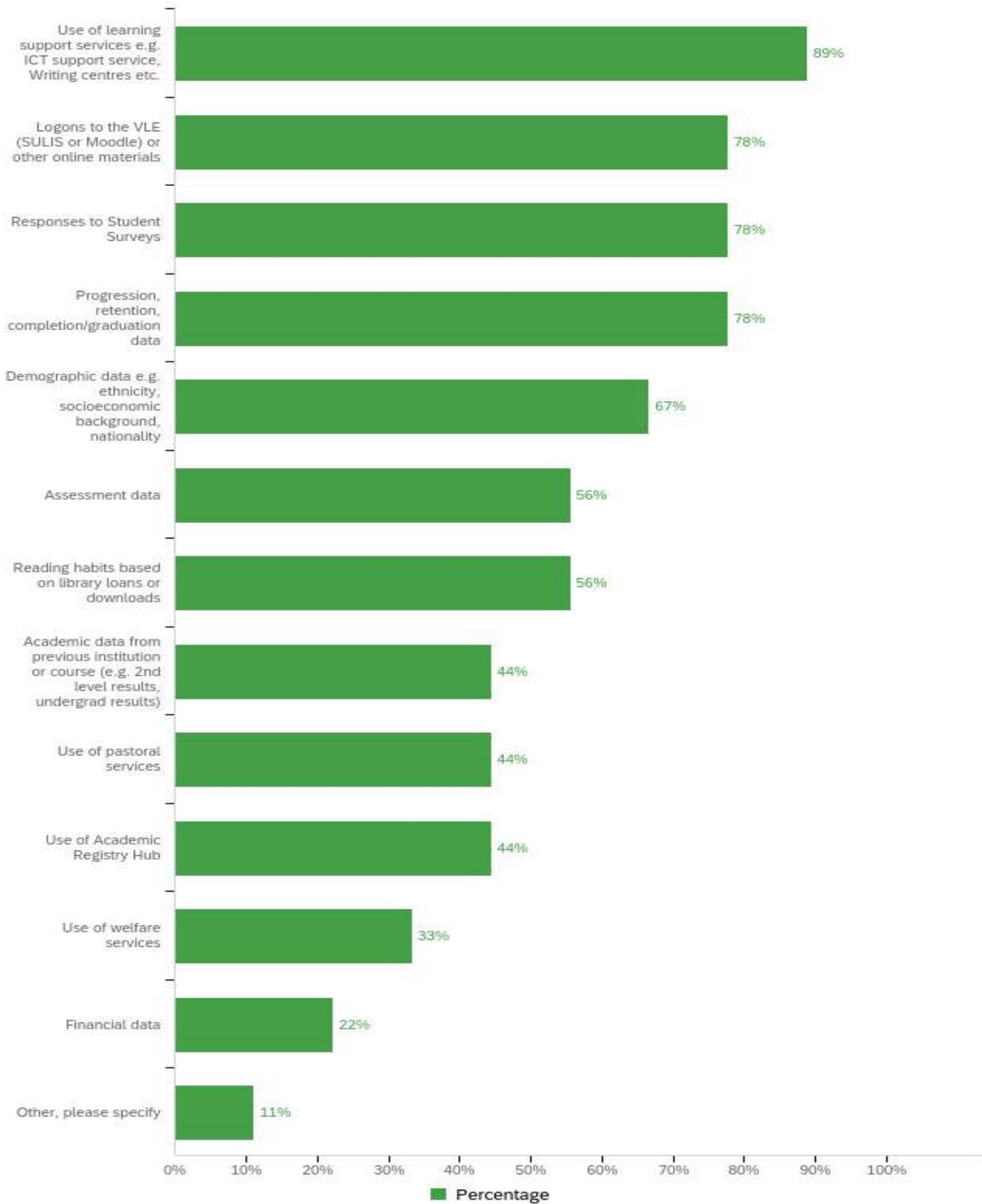


Figure 3: Legitimate Sources of Data -Professional Services Staff

4.5. Feedback from Students

57% of respondents think that students are over-surveyed with 36% indicating that they did not know. (Figure 4) Respondents were asked to rate the importance of follow up actions following the use of a student feedback mechanism from 1 to 5 with 1 being 'not at all important' and 5 being 'very important'. Table 10 shows that respondents have a similar view of the importance of all three actions.

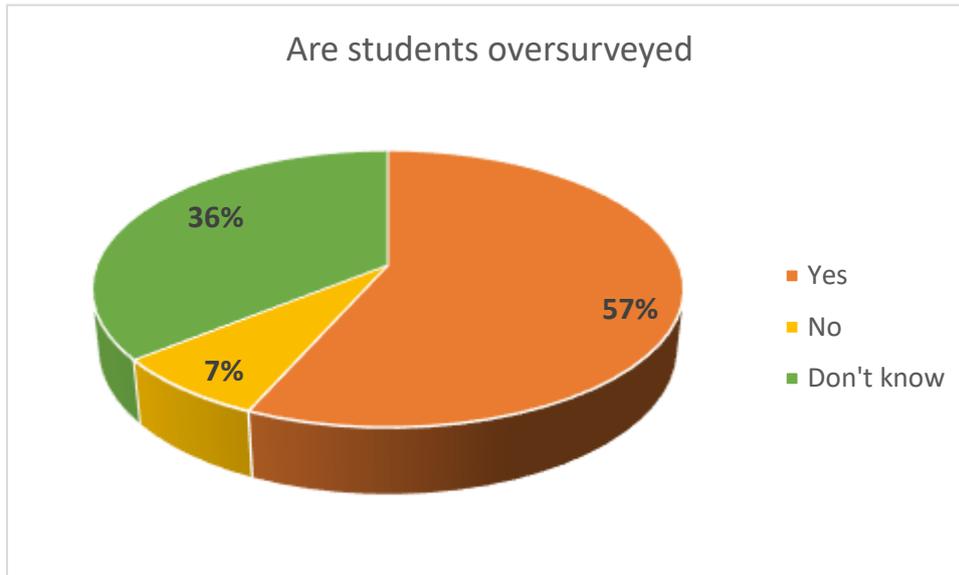


Figure 4: Are students over-surveyed?

Follow Up Action	1	2	3	4	5	Total
Communicating actions taken in response to feedback	4%	8%	24%	24%	41%	51
Responding to feedback	4%	13%	19%	25%	40%	53
Communicating WHY if actions have NOT been taken	6%	16%	14%	27%	37%	49

Table 10: Importance of Follow Up Action

Reasons preventing following up on feedback

Respondents were invited to give reasons that may prevent them from following up on feedback received from students. Reasons provided are that the students have left or finished the module, lecturers are time poor, the reliability of the feedback mechanism, response rate is not valid or that they have no control over the issues raised.

Other ways to get feedback

Respondents were asked to suggest methods of getting student feedback other than surveys. Suggestions included focus groups, use of in-class polls, use of in class quizzes, use of the student representative system.

5. Analysis of Focus Group data

The focus group data is combined and presented using the themes from the SHEILA project.

5.1.Purpose

Participants in the student focus groups perceived legitimate purposes for the use of data in each of the following broad and anticipated areas:

- to improve the University's service quality
- to improve the educational experience in a module/course/programme and
- to improve individual student's educational experience

In each of the above areas, students were able to give suggestions/examples of same unprompted.

In discussions arising from the poll regarding legitimate purposes for use of learning analytics and education data, staff participants also indicated that they perceived legitimate use of learning analytics in relation to each of the above three areas, and in the ensuing discussions, provided evidence of using data in all anticipated areas.

The staff poll included the possible purposes '*to inform one's teaching practice*' and '*to inform one's research practice*' respectively and staff indicated the perception of these also having legitimate purpose and examples of using data in these contexts were provided although there were qualifying comments made about both.

Unprompted, staff participants also identified potential for the use of data analytics in terms of supporting students in the context of retention and progression; predicting student success factors; identifying students at risk, especially in large groups; and to enhance decision making generally.

Amongst students there was clear evidence of increased concern about the uses of data, the purposes to which it could appropriately be used and whether and how one could interpret the data available as students' progress through their academic studies. In general, students expressed the need for clarity around uses to which the data is used and/or inferences taken from such data, e.g. in terms of how engagement data is interpreted and whether they are graded based in all or in part on such data.

By third year, students were beginning to say that the data analytics should be used more to support them **collectively** *i.e. to enhance the student experience*. There was also frustration expressed at the perception that the University doesn't join up the dots on the data it holds and instead keeps asking students for information that it already holds on them. It would appear therefore, that students expect a more sophisticated *quid pro quo* that with widespread data capture, such data will be analysed and used to enhance their experiences as students at UL.

Broadly speaking, there is support amongst students for using the analytics as aggregate data, e.g. to enhance services, plan opening hours etc. However, if there's going to be any kind of individual/personal application or associations made from the data there was an overall consensus that formal consent is required for that.

Among staff, the issue of using data to enhance the student experience was not identified other than as a means of enhancing service delivery broadly and to enhance decision-making.

While staff were clear in terms of being able to identify legitimate purposes for the use of data in principle, they raised a number of practical and ethical concerns around use of the data in practice, including:

- difficulties with accessing data already captured
- frustration with surveys and their perceived inadequacies
- concerns around the reliability and appropriateness of the data being captured
- concerns around whether consent is being sought and given
- validity of engagement data was questioned
- concerns regarding the gender impact of student feedback via surveys
- ethical concerns regarding the use of the data captured.

With regard to the purposes to which learning analytics and data analytics can legitimately be used therefore, both staff and student focus groups indicated a clear need for policy around the collection and use of data, the controls on access, assurances around confidentiality and anonymity and the limitations on use inside and outside the organisation.

The discussion here also suggested the need for training for academic staff to best enable their engagement with and interpretation of data. And finally, a concern was raised in both staff and student focus groups regarding staff workloads in the context of analysing the burgeoning amount of data now available and to which staff don't necessarily feel competent to respond. If taking a more concerted approach to the use of learning analytics and data analytics generally, the University will need to consider how that data is going to be analysed and by whom.

5.2. Transparency

There is an overall consensus in both staff and student focus groups that there is a lack of transparency around the collection of data currently, the purposes for which data is collected and whether or not adequate consent has been sought and given for same.

Students were asked directly whether they were aware that their University has the ability to collect and analyse data about their actions in various learning environments (e.g. virtual learning environments, lecture attendance, library accesses) and data collection points.

The data collection points were identified to students via a slide showing the progression of an individual student's engagement with the University from attendance at Open Days and CAO application through to graduation and first job destinations:

- Open Day
- CAO Application
- Registration

- Virtual Learning Environment
- Library and Student Services
- Survey Responses
- (Academic) Performance & Progression
- Final Award and First Job.

Responses from students indicated surprise at the volume and variety of data being collected on them, not just in the virtual learning environment but across all data collection points. Early year participants expressed least surprise or concern and from third year onwards students expressed concern about access to the data being captured and whether their consent is being sought.

Students in the latter years expressed the sentiment that the more sophisticated the University gets with capturing data on an individual student's journey, the more progressive and frequent there need to be opportunities to give informed consent for the capture and use of that data.

Overall, the student focus groups indicated a lack of transparency around each of the following:

- whether consent and informed consent was sought and given
- the nature and volume of data captured and the uses to which it is put
- who had access to individual/personal student data

In the focus groups for staff, participants were *not* asked a specific question about transparency, rather a definition of learning analytics was shared and data collection points were identified to participants. The definition provided was not broadly agreed and there was considerable debate as to what is meant by data analytics and learning analytics at UL, suggesting that the approach and purpose is less than transparent to all involved.

In the staff focus groups also, there was a lack of clarity as to what the university is trying to do with the data it is collecting, i.e. there was lack of clarity as to what issues the University is seeking to address? This suggests an ongoing need to clarify what the University is seeking to address and what data it requires to inform the approach taken to addressing the issues identified as being of concern.

It was suggested in the staff focus groups also that improved clarity around what the University is seeking to address would help ensure that the correct data is being sought and captured by the most relevant or appropriate medium. The use of surveys and learning analytics data were both questioned as to whether the right information is being sought and captured.

Some discussion in the staff focus groups centred around whether data currently collected is being driven by what the infrastructure provides rather than starting from first principles to identify what's needed.

And finally, even in the senior management group, the concern was expressed that there is data that is being collected and that could be collected but no one has yet determined whether it should be and even whether ethically it was a good thing to collect it.

Overall, therefore, the transparency issue needs to be addressed for both staff and students in any resulting policies and guidelines arising from this initiative. A greater understanding on the

differentiation between the legal basis on which the University collects and uses data in the context of GDPR compliance and the ethical requirement to gain informed consent for research and publication is needed.

5.3. Use of Data

In general, students identified two main ways in which data could be used to support their educational needs:

- to improve your overall learning experience and wellbeing
- to alert teaching staff early if you are at risk of failing a module or if you could improve your learning.

Students did talk about the impact of data on the relationship with teaching staff or tutors but in general perceived that access to personal data could actually damage relationships because it could lead to bias.

In a similar vein, staff participants were typically comfortable with having data available to them in relation to academic data, engagement data and progression. The main type of data around which staff flagged some concerns was in relation to personal data, including data regarding accessing of pastoral services.

No students identified the following two potential uses of data that had been identified as possible areas of note:

- Identify the most successful pathway through your studies
- present you with a complete profile of your learning in each and every module.

In the discussion about use of data, Students again indicated that the use of data analytics was not just about academic attainment and progression but also about enhancing the broader student experience. Staff also indicated that there is a much wider potential application of data e.g. in relation to understanding student motivation and success and suggested that there are wider sources of data required and validity needs to be tested in order to progress same.

Overall, concern was expressed here again in relation to issues around consent for use/access to data, and whether the purpose and use of the data was clearly known and understood by all.

The validity of engagement data in particular was questioned by both staff and students.

Staff were asked specifically about data currently being used and the kinds of data that might support them in their professional development. They identified a wide range of sources of data that they routinely use in the virtual learning environment, including:

- Sulis
- Panopto
- Microsoft Teams
- Google Surveys

- You Tube
- Publisher
- SI, the student record system

Some of the above sources of data were seen as essential to plug gaps within the main platforms supported by the University. In this regard, it could be argued, that the findings in the focus groups identify some limitations with the main platforms currently in use to deliver online content currently.

When asked what would be useful to staff to enable them to use data more, participants made multiple suggestions including, e.g.

- enhancing ease of access to centrally held data
- substantively improving the reliability of the data that is stored centrally
- centralised approach and professional support for data analysis
- taking a programme level approach to analysis of the data in terms of student progress
- return to basics in terms of clearly defining the purposes for which the data is to be used

In terms of enhancing engagement with and use of data analytics, staff participants in focus groups highlighted the need for training and support for interpreting the data, including professional support from dedicated staff in central services.

5.3.1 Reliability of Data

With regard to enhancing confidence in data generally and learning analytics data in particular, both staff and students have concerns about the reliability of the data available (e.g., multiple examples were shared in staff focus groups of problems with gender data and student records when analysed for Athena Swan or programme reviews) and the validity of some (e.g., engagement data). This suggests that there is quite a body of work that needs to be completed to clean existing data and make it serviceable for end users. There is also room for clarifying what data needs to be recorded and why (e.g. access to pastoral services) and whether it is used in aggregate-only or not. And the validity of engagement data needs to be tested.

5.3.1 Access to Data

Staff participants also suggested the need for support and clarity around accessing and analysing data that is held and is either currently or potentially available to them. Consideration of how to make data more readily accessible and providing support for analysis will be a key element in ensuring engagement by teaching staff with learning analytics and educational data in the longer term. This is also important for professional services staff to support service enhancements generally and also to enhance the personal supports they can potentially provide to individual students.

The need for clarity and policy around the use of data was emphasised with a recommendation from a participant in one staff focus group that the University could base its approach on the JISC code of practice for learning analytics.

There was also a request that staff in central services, who support students, would be enabled to have access to individual student engagement data in order to best address and support individual student needs.

Access to and use of data post-graduation was also raised by students as an area to be considered in this work which has implications for alumni data management.

5.4. Feedback to Students

Options for receiving feedback that were discussed in student focus groups included in-person feedback, written feedback and visuals/dashboards as prompted by a poll that identified same.

Amongst student participants all approaches were seen as having pros and cons and in-person feedback in particular was seen as having significant resource implications for the University and the question was raised as to whether it was likely to be implemented in any large-scale way as a result.

Written feedback was seen by students as having the advantage of being documented and that one could track progress over time. The disadvantage was that it can be hard to understand sometimes or is too generalised to be meaningful.

First years, perhaps because they were launched intensively into the virtual learning environment, were more aware of the types of analytics available in Sulis or Moodle, higher undergraduate years seemed less aware and postgraduates almost not at all. Amongst those students who were familiar with them, dashboards were generally viewed as highly suspect and open to gamification. Their suitability as a tool for providing feedback had mixed response.

Student focus group participants generally saw potential for using platforms like Sulis to give and receive feedback in a timely fashion, especially at module level. The availability of this mode of feedback seems to limit any benefit to the Module Satisfaction Survey. Students also expressed frustration at repeatedly answering the same questions for module-level surveys.

In terms of receiving feedback from the University on issues they had reported or commented upon, students indicated that they always want some kind of response, even if nothing is going to be done in response to feedback generated. In general, they were open to responses being communicated via any or all routes: in person, email, newsletter, social media. Students saw a positive role for social media as a means of communicating outcomes generally.

Where feedback was personal to them in the context of their academic journey, students expressed concern that feedback via email can get lost in their inbox and were typically not keen to receive contact via phone (text ok but not a call). Suggestions were made that feedback could be made via notifications being flagged on the likes of Sulis or an App with signposting to supports available.

5.5. Feedback *from* students to the University

For first year students, the focus group came too early in the semester for them to have had much experience of giving feedback to the University, all other groups engaged fully in the discussion.

In terms of enabling feedback, there was broad support amongst students for the requirement for it to be anonymous and an explicit requirement that it be responded to *in some capacity*. In this context, a number of students reported giving feedback to teaching staff either directly or as part of a survey or initiative taken by class reps to which they got no response. This was invariably found to be frustrating and in circumstances where examples were given where feedback had been given or issues raised and no response received, participants suggested the need for clear pathways for escalating issues of concern.

5.5.1 Surveys as a source of feedback

There were multiple references amongst both staff and student participants in the respective focus groups to surveys being one of the main sources of student feedback. Amongst staff participants, a broad range of surveys were identified as being routinely used, including ISSE, Module Surveys, Student Evaluation of Teaching and In-platform polling tools respectively. Students on the other hand were more familiar with MSS, not typically identified by name but simply referenced as the survey for individual modules.

Both staff and student participants in focus groups were critical of the MSS. For students, it was typically regarded as too generalised to be useful and significantly they perceived that it was not customised to capture the online experience. Staff were generally frustrated with the MSS, leading to examples of individual staff generating their own surveys to endeavour to get the feedback they actually need. This latter activity, must at least in some degree contribute to the survey fatigue dilemma which also was expressed as a concern by staff participants. The level of dissatisfaction with the MSS by all parties, begs the question whether the MSS is defunct, with multiple staff saying they only use it because it is required for promotions and only one participant in all staff focus groups saying they liked it.

Amongst staff participants in the focus groups the current approach to data capture via surveys generally was criticised. The following were all flagged as concerns:

- role and purpose of surveys is perceived to be unclear
- there is a perceived unmet requirement for more personal and qualitative feedback
- concerns regarding the reliability of the survey data collected
- the use of survey data in academic promotions
- survey fatigue, leading to poor response levels

The anticipated Student Evaluation Policy would need to address the above issues in order to make the overall approach to student feedback more effective. Here too, greater clarity as to the purpose for which the data is being collected would enable a more fit-for-purpose approach to be identified and adopted.

The findings in the staff focus groups suggest that the current centralised surveys negatively impact the feedback loop as a result of e.g.,

- the inadequacy of the questions answered
- poor timeliness of the surveys being conducted
- the delay in reporting the results
- lack or limitation on qualitative feedback to explain the feedback
- lack of local level detail on surveys

For students also, frustration was expressed that feedback requests come too late in the semester for changes to be made for the cohort involved and at the overall perceived lack of responsiveness to feedback given.

From participants in the staff focus groups several options for enhancing the approach to surveys and overcoming survey fatigue were identified. These included the need for policy and clarity of purpose regarding the use of surveys, enhanced coordination of surveys, and exploiting existing platforms to capture student feedback.

There were also some perceived opportunities identified by staff participants in terms of centralising much of the data contained in surveys to enable comparison across data sets and recommendation of a schedule of surveys including those collecting data for external purposes so that everyone is aware of the timings and can work with them to avoid over-surveying at peak times.

Both staff and student participants identified multiple additional means of enabling feedback (other than surveys) many of which were perceived by all parties as having a positive impact on shortening the feedback loop. Examples of such additional/alternative methods identified by students included:

- the forum and lecture reports (on Sulis)
- contacting the lecturer directly
- class reps and
- office hours

In a student focus group it was also suggested that additional means of enabling feedback exist but are not being used, e.g. world café.

5.5.1 *Effective Alternatives*

Staff participants identified multiple ways in which academic staff in particular currently seek and action feedback from students in more formative and timely ways than surveys offer, including

- engaging with student directly in classes
- taking anonymised feedback via post-its at the end of specific classes and responding to issues in the next class
- designing more qualitative surveys at module level, and/or using e.g. polling options in Sulis or Moodle

Students suggested harnessing the insights provided through unsolicited feedback on social media

Such approaches were seen as more effective largely due to the qualitative nature of the feedback achieved, their timeliness, being formative in nature and with more likelihood of quickly closing the feedback loop.

In terms of receiving responses to their feedback, students identified the following as options, all of which were perceived as being welcome and there was no particular preference overall:

- face-to-face interaction
- written communication, including email and notifications on e.g. Sulis
- social media and
- responding in kind, i.e., if feedback was written, the response could be written etc

Overall, student participants in the focus groups stressed that the most important thing was that they would get some response to feedback given.

5.5.1 Ability to Opt-Out

Both staff and student focus groups were asked about whether they perceived the need for a student opt-out option from surveys. This resulted in quite a lot of discussion in both sets of focus groups and even some confusion amongst staff as to whether such an opt-out already exists. If it does exist, it is not widely known and understood by staff or students. While there was unanimous consensus among first year students for the option to opt out from unofficial surveys, almost all other groups felt that it needs to be a bit more nuanced. Overall, there was no definitive support for opt out from surveys although it was suggested from a staff focus group that there is a need for an overall communications strategy which would cover the role and purpose of surveys and clarify issues like opt out.

In summary, there was an express need identified for the kind of Student Evaluation Policy intended from this initiative. It is suggested that such a new policy represents an opportunity for evaluation to be approached in a more holistic and comprehensive way, combining multiple approaches to student evaluation to ensure effectiveness overall. It would also provide an opportunity to address existing concerns with the MSS in particular, including the possibility of getting rid of it altogether as it does not seem to be meeting its intended purpose and online tools within teaching and learning platforms are already being exploited to extract the feedback from students that academic staff deem to be more important and useful. It is suggested that the Student Evaluation Policy could also benefit from highlighting and normalising the multiple approaches to student evaluation currently ongoing within UL.

Whether or not there is a need for a separate Communications Policy/strategy is also worth considering as a means of more clearly outlining how the University communicates with students, within which the approach to surveys could be incorporated and highlighting the process for addressing and responding to the issues raised. Either in a strategy of this nature or within a Student Evaluation Policy there is also a need to clearly outline for students the means by which they can escalate issues that they have raised and for which they have not received a response. This was particularly pertinent to concerns raised at module or programme level.

5.6. Ethical Concerns, including Consent & Ownership of Data

Amongst staff participants, when specifically asked about ethical issues arising from incorporating learning analytics into their teaching practice, concerns were raised across the following:

- gender issues associated with student feedback
- concerns around the purpose of the data collected and transparency around who has access to such data
- need for policy and guidelines governing the collection, use and interpretation of data.

In general, the longer a student was at the University the more concern they expressed in the focus groups about the issue of consent and ownership of data. This was particularly the case amongst postgraduate students who also raised questions around whether the University has data controllers in place and, if so, whether they are bound by an ethical code of conduct?

Broadly speaking, student participants in the focus groups were more relaxed about use of data in aggregate form. As may be anticipated, they expressed particular concern about who had access to any data that was personal in nature and /or could identify the individual. It is worth noting, that identifying students by their student number was not seen as a secure way of protecting their identify or guaranteeing confidentiality.

Both staff and student participants in focus groups flagged concern about the possible use of predictive analytics. First year students especially, felt that predictive data shouldn't be taken too seriously and other student groups also pointed to the likely exceptions to any predictions based on background or previous academic achievement. Amongst some staff, there was a sense that University is a place for a clean slate such that too much awareness of past/prior (second level etc) performance was not necessarily welcome. While one or two participants in staff focus groups expressed confidence in being able to use data to predict performance, there were equal numbers who expressed concern that substantial work is required to establish reliable baseline data to enable any such predictions.

There is a critical need to address issues of consent and ownership of data in the anticipated Learning Analytics Policy and/or Student Evaluation Policy. Academic staff participants in focus groups are also seeking clarification as to what data they can appropriately use in their research and the circumstances that require ethical approval for research and publications purposes. The issue of

gender within student evaluations and the potential impact of same for female staff in the promotions process all need to be acknowledged and addressed. Given the gender implications, the use of MSS data in academic promotions seems to require revisiting.

5.7. Autonomy, Intervention and Obligation to Act

While there were differences of opinion amongst staff participants as to whether there is an actual obligation to act in support of students identified as being 'at risk' there was a broad consensus that it is the right thing to do and is actually something that UL does well.

Typically student participants also favoured intervention on the part of the University. However, there was a sense expressed by students that you can't make assumptions about individual needs or the most appropriate support, so such intervention is probably best being tentative and suggestive rather than directive in most cases.

There was also a range of responses among staff participants in terms of **who** is best placed to take action, ranging from module coordinators, to personal advisors to team (programme-level) interventions at the local level or involving the First Year Student Coordinator, in particular for very large cohorts. Amongst students, the discussion was more around **when** is the best point to initiate an intervention, e.g., based on engagement data, or within specific timeframes, or on the basis of grade (performance)?

5.7.1 Opt out from supports?

Opt-out from supports offered was favoured by first years but was more nuanced amongst more senior years. Participants who favoured the option to opt-out did request that opt-out would be periodically revisited in the event that students changed their minds about same. This suggests that if there is an opt-out option included in policy guidelines, students would need the opportunity to regularly revisit same.

5.7.1 Training

There was a broad endorsement among student participants of the need for training to be given to teaching staff to support them in analysis of the educational data available and communicating the results into personalised feedback for students. There was also support for staff to receive training on the interpersonal communication skills required for giving feedback effectively. This corresponds to the staff survey finding where the provision of professional development was considered to be a key structural requirement. (see 4.1 and 4.2)

5.7.1 To automate or not

There was a general perception amongst staff participants that in-person responses (i.e. interventions) are probably best, particularly if students are identified as being 'at risk' but there was also a perception that system-based flags are improving all the time and have potential in the longer term. Student participants also indicated some support for having automated flags within platforms like Sulis to flag issues and signpost the resources available, inviting students to make contact as desired. Students indicated generally that they do not tend to welcome contact via phone, certainly not face-to-

face phone calls and gave an indication that they'd want the opportunity to opt-out of same (phone contact). The use of automated flagging systems may become more important if anticipated concerns around staff capacity to respond to all the data and potential needs identified are realised.

6. Survey and Feedback Mechanism Inventory

An initial survey inventory was undertaken by QSU in 2015 to ascertain the level of student survey activity within the University. The initial exercise reported a high level of survey activity at unit level. A report of the survey inventory was presented to the VPA&R Management Group upon completion.

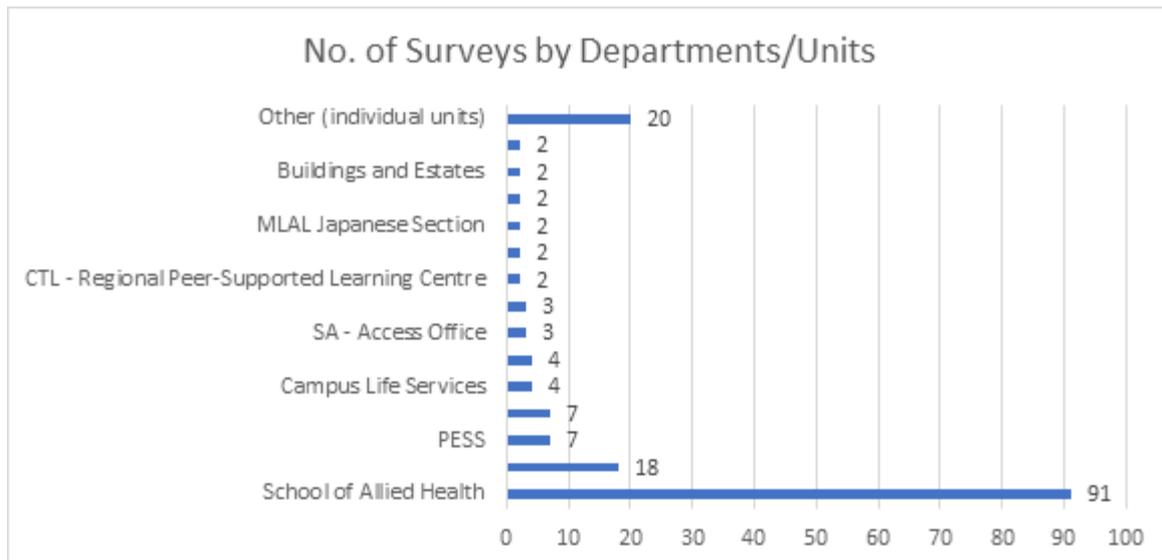
A second inventory was undertaken in 2021 to review the current situation, in support of the [StELA Project](#).

6.1. Survey Activity

A total of 40 individual units (both academic and professional services) were contacted. Each unit was asked to complete a survey template outlining details of all survey activity undertaken by the unit, including details of focus group activity. Details requested were as follows:

- Name of Department/Unit
- Survey administered by
- Survey Title
- Reason for Survey
- Target Audience
- Frequency of Run
- Time of Year launched
- Response Rate
- Link to Survey (or forward copy of questions)
- Results distributed to whom?
- Results published?
- Action Plan derived from results?
- Planned actions published?

Thirty initial responses were received to the email, with survey data being returned by 20 units, with a further five units reporting not having undertaken any survey activity in the reporting period. In total, 169 individual survey details were returned. Figure 1 outlines the number of surveys administered by Department / Unit.



Reason for the Survey: Participants were asked to outline the reason for undertaking the survey. These varied greatly, with the majority of surveys being at module level. A high percentage of the surveys returned were from the School of Allied Health (91). These surveys were required as part of the programme accreditation process.

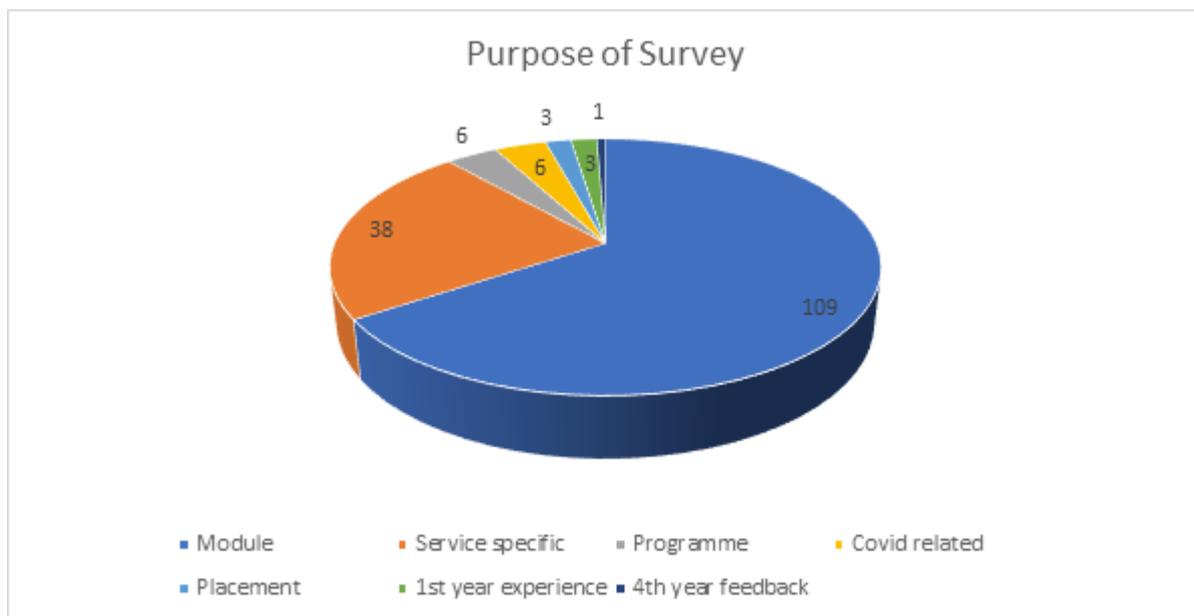


Figure 5: Purpose of surveys issued

Analysis of Survey Questions: 550 individual survey questions were analysed to ascertain if there is overlap with existing university-level surveys. While there appears to be some overlap with the questions asked in the Exit Survey and the MSS, the majority of the questions asked are specific to the unit issuing the survey. At a broad level, all are seeking to establish a sense of the students' experience of their particular facilities/services as well as assessing the students' understanding of what they (the students) perceive the unit to be

responsible for. A significant number of the surveys are module specific, and in these cases, there is overlap with questions on the MSS. On further investigation, the primary reason for the use of module specific surveys in addition to the MSS, is a requirement by professional bodies for end of module evaluations rather than mid-module evaluations.

Response Rates: Response rates to the surveys varied greatly, with rates ranging from 7% to 100%. The average response rate from those who provided the data was 45%.

Frequency: Frequency of run also varied. 109 surveys were administered annually with 6 on a bi-annual basis. Thirty seven surveys were run at the end of the semester, with 5 running on a periodic basis. Ten of the surveys reported were once-off.

Closing the Feedback Loop: The final questions of the survey inventory related to the distribution of survey results and action plans. Eleven units reported publishing survey results on the web. The majority of units distributed survey results internally within the unit, among teams and to various committees. Module level surveys results were distributed to module leaders, course boards, course directors and tutors.

When asked if action plans were derived from survey results, 28 responded in the affirmative, with only 3 respondents published the results. Several respondents outlined that feedback was used to enhance service delivery. At a module level, feedback was used to make modifications to modules and/or student supports.

For accredited programmes, feedback goes to the accreditation body as part of the accreditation process, with students receiving a summary, including tutor responses.

Focus Group Activity

In total, reports on 15 focus groups were undertaken with the student population. Key themes emerging from the analysis are outlined in Figure 6 below.

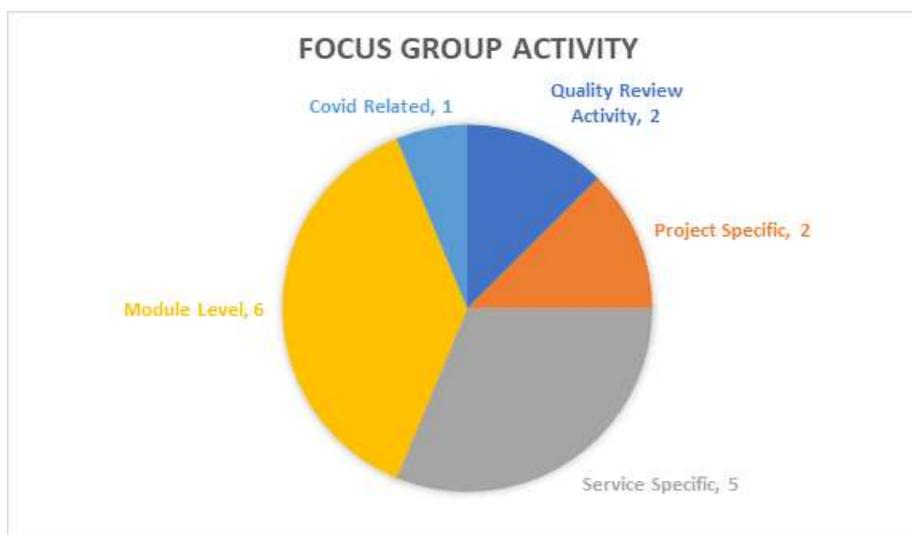


Figure 6: Range of Feedback Activity

The majority of focus groups were held either once per annum or once per semester, with the exception of quality review activity, which is every 6 to 7 years. Results of focus group activity are not normally published, but feed into action planning at unit level.

These findings correspond to the findings of the focus groups, where there are overlaps in central and programme based activity which points to a greater need to co-ordinate survey timings and where possible integrate questions or allow for greater flexibility and localisation in central surveys.

7. Data Governance

The technical workstream of the project set about to develop a prototype dashboard which combined programme (course) data, exit survey data, module satisfaction survey data and elements of the studentsurvey.ie (formerly ISSE).

Prior to creating this dashboard, consideration was given to what data should be combined and how should access to the combined dataset be governed. Arising from these considerations, the following principles are proposed to be included in any policy relating to the combining of individual data sets and access to them.

- Data must be recognized as a valued and strategic enterprise asset
- Data must have clearly defined accountability
- Data Must be managed to follow internal and external rules/ regulations
- Data Quality must be defined & managed consistently across the data lifecycle

In order to manage the governance of data a “Systems, Reporting and Access Matrix” is proposed to enable decisions be made as to how access to data can be granted and monitored.. In considering access to data, existing university policies on data protection, the provisions of the employee code of conduct and the university procedures on access to systems currently and will continue to apply. However, there is lack of clarity on the ownership of the data and who is the decision maker with respect to accessing that data. The matrix proposes a set of user definitions which builds on existing definitions adopted for the student information system and will determine who the access rights to the datasets:

Data Engineer (DE) – Designs & develops an automated process to populate a data model within the data warehouse using source data. Can access “raw data” appropriate to the processing activity.

Subject Matter Expert (SME) – somebody with relevant domain knowledge that is involved up to the point where the data is populated in the dataset. Can access “raw data” appropriate to the processing activity.

Report editor (RE) - somebody who can access the dataset to create reports, using PowerBI. Cannot access “raw data”. Report editors will be QSU and BIS.

Report Reviewer (RR) – can access draft versions of PowerBI reports created by report editor. Usually stakeholder input & validation activity.

Report viewers (RV) – Standard end-user can use PowerBI interactive dashboards to view aspects of the data. Data available may be restricted to particular roles (e.g. module leader vs Dean). Cannot access the “raw data”.

Operations & Maintenance Group (OMG) – day to day operation and ongoing maintenance of the system e.g. minor fixes to data model. ITD BI Team.

Report business owner person who has overall responsibility for the report e.g. Unit Director, with relevant domain knowledge that takes responsibility for validation of the report and decision on access to the **report** (but not the underlying dataset). Works closely with the SME / delegates to SME

In proposing this this matrix, it is acknowledged that it may be could supplement existing registers of assets as mentioned in existing policy documents e.g. IT Security Policy.

7.1. Institutional Research vs Research

The focus groups raised the concerns of staff regarding the use of student data for research purposes. This is an important matter and requires further work and discussion beyond the remit of the StELA project.

Institutional Research can be defined broadly 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, p13²) The university currently excludes data collection for quality reviews, practice reviews or professional audit from requiring ethical approval. Data that is used for learning analytics is collected using the legal basis determined by the University and detailed in the Student Privacy Notice. While individual or groups of staff may commence work on datasets for this internal purpose of quality enhancement or review, they may wish to subsequently use data for their personal research and publish the outputs of their work. In such circumstances and from an ethical rather than data protection or data privacy standpoint, informed consent is required from students to use any personal data collected initially for institutional research. Such informed consent cannot be retrospectively granted. While anonymised data may be accessed for research purposes, access to datasets can only be granted on a case by case basis to ensure, particularly in smaller datasets, true anonymisation data so that individual students cannot be identified.

² IUQB (2008): GOOD PRACTICE FOR INSTITUTIONAL RESEARCH IN IRISH HIGHER EDUCATION, Irish Universities Quality Board, Dublin

7.2. Approval for Access to Combined Datasets

In order to manage access to the datasets that are not accessible in the normal course of a staff members duties, the establishment of a Dataset Oversight Governance (DOG) Committee is recommended. The profile/core characteristics of the committee should be as follows:

- Responsive & Light touch, that is not hugely burdensome process but a formal process with terms of reference
- Small approval committee (~5 people) that reviews application & has the authority to make decisions & reports to the Provost. Similar to the cloud structure with relevant domain knowledge & capacity to understand and review the request.
- Committee that understands what they are talking about and can make decisions – impact assessment if access granted/denied.
- Include in this the potential to agree by email between formal meetings. Decisions noted at relevant committee meetings.
- Board members need Body required to have oversight of institutional data requests
- Renewal process :need to determine continued access to data (agreed period of review to access e.g. annual review of current access)

The project has highlighted the need for a university wide review of its framework for information governance to link key existing policies (Data Protection Policy, IT Security Policy) and create supporting robust procedures to enhance their implementation.

8. Conclusions and Recommendations

The outputs of the workstreams of the StELA project have provided rich data on which to build the framework and organisational capacity to realise the University's ambitions to use learning analytics. The discussions held in the focus groups with staff provide further context and background to the findings of the survey. Staff and students share views on both the positive and the challenging aspects of the collection and use of data in a learning environment. Arising from the findings above, a number of recommendations are made below.

8.1.Strategic View of Learning Analytics

There are opportunities to build support for positive and effective engagement with learning analytics and educational data through building on the expertise and experience of existing staff. A number of examples were given of effective approaches to supporting at risk students using learning analytics data from the 2020-21 first semester. These were positively discussed and shared and evidenced how data was being used to enhance existing practices and making the process more automated, streamlined and effective.

This expertise and experience should be harnessed to inform a university strategy for learning analytics that complements the university teaching and learning strategy, digitisation strategy, IT strategy and student success strategy. Until such time as these strategies are developed, work can commence on the policy and other structural building blocks to optimise the organisational capacity to implement such a strategy. The survey and focus group data has provided a basis on which to prioritise specific datasets that are deemed useful e.g. assessment data, progression data, use of the VLE data. The development of questions to be answered by this data would be a valid first step.

Recommendation 1: The creation of a working group to develop a learning analytics strategy that complements the university's strategies for teaching and learning, digitisation, and student success.

Recommendation 2: The facilitation of a community of practice to share good practice in terms of the application of learning analytics and empowering teaching staff in relation to exploring same. Sharing examples of effective exploitation of existing platforms to obtain and respond to student feedback quickly and effectively could also be shared in this way.

Recommendation 3: To build on the work of this project test and implement the provision of the proposed policy using assessment data to provide feedback to students through the NFETL funded StELA Live project

8.2. Ethical Concerns and Transparency

Many of the concerns expressed around capture and use of data and purposes to which data can be put can be addressed by an appropriate Learning Analytics Policy and a Student Evaluation Policy. The pressing need for both was highlighted and endorsed by participants. As an intended outcome of this research, this endorsement is welcome. The detail of these policies and associated procedures and guidelines will be informed by the outputs of this research.

Recommendation 4: the development and implementation of a learning analytics policy that provides the basis for the use of existing data and can be further developed as university strategies are developed.

Recommendation 5: the development and implementation of a surveys policy that provides a framework to manage student evaluation mechanisms

Recommendation 6: Develop a resource for students to explain how and why their data is held and how it is used. This resource will rely heavily on the Student Privacy Notice. This resource should be made available at induction/orientation and available on the VLE for returning students.

8.3.Data Governance, Reliability and Validity

Challenges highlighted by participants around storage of data and comparability of data sets, the accuracy of the data and reports produced need to be addressed as a matter of urgency, to reassure staff of the reliability of the data and to actually enable staff to do their work more easily. In order to provide that reassurance, the quality of data captured must be improved. Building on existing policies, procedures for determining the ownership of data and the approval pathways for access to data should be agreed.

Recommendation 7: To build on the work and experience of the SI data governance group to improve data capture and management.

Recommendation 8: To create a Systems, Reporting and Access Matrix for datasets which describes who has ownership of each dataset and who has responsibility for the validation the reports created from each dataset. This matrix may be included or subsumed into existing structures e.g. IT Assets Inventory

Recommendation 9: To create a Data Oversight Governance Committee that grants access to data held in the data warehouse

Recommendation 10: To review existing Data Protection and IT Security policies to highlight where they complement each other and identify policy or procedural gaps which will support enhanced data and information governance.

Recommendation 11: To develop additional capacity to truly anonymise data to support access to data for researchers.

8.4.Staff Development

Staff participants acknowledged the need for training and requested centralised support for interpreting data, both of which are suggested as important requirements to empower staff to use such data more comprehensively. Training is also required in how to approach interventions with individual students.

Recommendation 12: To develop resources to inform staff of the datasets available to them and to use those datasets effectively to enhance their teaching

Recommendation 13: Create resources to assist staff in reflecting on and responding to feedback from students and in providing appropriate, timely feedback to students

8.5.Feedback to the University

The module satisfaction survey is considered not fit for purpose. Participants provided multiple examples of alternative feedback approaches that are perceived as better than surveys and enhance closure of the feedback loop in more effective and timely ways. A more holistic Student Evaluation Policy would articulate and legitimise such approaches to student feedback, including incorporating

these alternative feedback models and their application as evidence for academic promotions purposes.

Recommendation 14: To create a working group which will investigate and recommend amendments to student evaluation mechanisms. The working group will advise on

- ***Appropriate mechanisms for module evaluation***
- ***Appropriate mechanisms for programme (course evaluation)***
- ***Investigate other forms of student evaluation that are appropriate***

The working group will take into consideration the University's statutory obligations and the requirements of professional, statutory and regulatory bodies.

9. Appendix 1: Student Focus Group Questions

Themes	Questions	Prompts
1 Transparency	<p>Are you aware that your university has the ability to collect and analyse data about your actions in various learning environments (e.g., virtual learning environments, lecture attendance, library accesses)?</p>	<p>a. Graphic with student journey/data collection points/results from Index b. Poll with the collection points – did to you know that your data is collected Questions – are there surprises, omissions</p> <p>Graphic Required</p>
2 Purpose	<p>What would be legitimate purposes for the university to use your data?</p> <p>Open day</p> <p>CAO – name, address, school, LC subjects/grade/points/HEAR/DARE</p> <p>Register – as above + term, SUSI grant recipient, fees, modules</p> <p>VLE – modules, how many times you logged in, quizzes</p> <p>SI – exam results</p>	<p>Slide with graphic</p> <p>This is the data that is captured as you move through your course of study. This data is currently looked at in an aggregate way. There is potential to join this data up to provide more insights to how we run services and programmes. These are potential areas...</p> <p>a. Should it be used to improve the university’s <u>service quality</u>, such as resource allocation, teaching quality, curriculum design, etc.? b. Should it be used to improve the <u>educational experience in a module/course/programme</u> (e.g., identifying problems within a learning activity)? c. Should it be used to improve <u>individual student’s educational experience</u>, e.g., identifying points of struggle or points of disengagement?</p>

Themes	Questions	Prompts
	SS – academic performance, feedback from lecturer, progression, SA meetings – Health centre appts, appointments with First Year Co-ordinator, access office, learning centres Co-Op Job and interviews Erasmus study abroad Use of Library, books borrowed, articles downloaded Final award, 1 st job Survey responses	

3 Educational needs - significant question, requires discussion	Would you like the university to use your background and educational data to support your learning?	*Explain: Background data include previous educational attainment, demographic information, etc. Educational data include data collected from any physical or virtual learning activity. Use the data collection graphic a. What are the ways that this data can be used to support your learning? Possible prompts
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from participants		<p>To improve your relationships with teaching staff or tutors</p> <p>To improve your overall learning experience and well-being</p> <p>To identify weaknesses in your learning and suggest ways to improve upon this</p> <p>To alert teaching staff early if you are at-risk of failing a module or if you could improve your learning</p> <p>identify the most successful pathway through your studies</p> <p>Present you with a complete profile of your learning in each and every module</p>
5 Feedback to students	How would you like to receive feedback from the analysis of your educational data? (poll)	<p>The interviewer needs to prepare flashcards of these items. Poll with multiple select from all items. Discussion to follow on highest and lowest preference – why?</p> <ul style="list-style-type: none"> • Should it be in person (e.g., from your personal tutor)? • Should it be in text (e.g., an email)? • Should it be through visualisations (e.g., a dashboard)? Could we have a sample dashboard to give an example of this? <p>Discussion question</p> <p><u>Should feedback present a comparison of your progress to your peers' (course cohort) progress?</u></p>

6 Intervention	How should teaching staff and tutors approach the analysis of your data? Poll per prompt question	<p>a. Should the University normally have an obligation to act if you are identified as being at-risk of failing or underperforming in a module? - yes/no</p> <p>b. Should the university normally give students the option to refuse the support? Yes/no</p> <p>c. Should any specific kind of training be given to teaching staff to understand the analysis of your educational data and to accommodate the results into your personalised feedback? yes/no</p> <p>Policy to explore the exceptions</p>
4 Feedback to the University	<p>a) What feedback do you think is useful to give to lecturers about your learning experience?</p> <p>b) What opportunities do you currently use to provide? Are there other ways/better ways that you could provide this feedback?</p> <p>c) How would you like to see a response to your feedback communicated?</p> <p>d. How would you like to see feedback on services that you use responded to, communicated back to you?</p>	<p>Prompt</p> <p>This feedback might relate to things like the provision of course and module outlines; lecturing style; group work, assessment methods, and feedback type and frequency.</p> <p>If students don't specify types of feedback, current methods of feedback retrieval include the Module Satisfaction Survey and Student Evaluation of Teaching (SET), exit survey in UL or studentsurvey.ie at a national level. What about the class rep system?</p> <p>Discussion – a meeting or an email from course director, class rep, head of service.</p> <p>What about when feedback can't be acted on or an issue can't be fixed</p>
7 Consent and ownership	Lets consider any ethical or legal issues with this collection and analysis of your data	<p>At the moment, data is collected but not necessarily visible by everyone in the University.</p> <p>a. Who do you think should be granted the right to view your data? Should you be made aware of it? (open question, chat)</p> <p><i>Lecturer, TA, Academic advisor, course director, dean, head of dept, learning centre staff, FYC, student affairs staff, library staff, university administrative staff eg academic registry, fees office staff</i></p>

		<p>b. Are there any types of data that the university should obtain explicit/further consent from you to <u>share</u> with other departments? (e.g., disability information, socio economic data, health data, financial data, poor academic performance)? (open question, answers in the chat) Eg Academic progress – goes to the academic advisor, doesn't go to FYC</p> <p>This data could be used to make predictions based on background and past performance in examinations and grades. This could inform interventions and supports. Do you think that this is helpful or not?</p>
8 Autonomy	<p>Do you think the university should allow you to opt out of some data collection at any time?</p> <p>Context that there is mandatory data collection for the purposes of university business e.g. need data to process exam results– ??</p>	<p>some data collection is optional eg. Surveys, -</p> <p>Should the university have a list of 'official/mandatory surveys that students must receive it and students must opt in to all other? Official survey Student evaluation of teaching, Exit survey, studentsurvey.ie, module satisfaction survey, registry registration survey, student experience survey, library & ITD , service survey.</p> <p>Opt out ones – requests to participate in research by PhDs, FYPs, staff research</p> <p>If there is a feature to contact you by phone, email if we think you are struggling, would you want to opt out of this?</p>

10. Appendix 2: Staff Focus Group Questions

Staff Focus Groups

Strategy = Open questions to be followed by prompts if necessary. Value is in the discussion

Themes	Questions	Prompts
Purpose	<p>Slide from Video, defining LA</p> <p>Statement: Learning analytics benefits from a range of education data including academic data, personal data, and engagement data collected from online or physical learning environments.</p> <p>Poll</p> <p>What do you think would be legitimate purposes for the university to use such data?</p>	<ul style="list-style-type: none"> a. to improve the university's <u>service quality</u>, such as resource allocation, teaching quality, curriculum design, etc.? b. to improve the <u>educational experience in a course/programme</u> (e.g., identifying problems within a learning activity)? c. to improve an <u>individual student's educational experience</u>, e.g., identifying points of difficulty or points of disengagement? d. to inform you about your teaching practice? e. To inform your research practice
Teaching needs	<p>Poll</p> <p>What kinds of data would be particularly useful to you in improving students' educational experience in a course/programme that you are responsible for?</p> <p>Follow on with a discussion</p>	<ul style="list-style-type: none"> a. Academic data (e.g., assessments, educational history prior or during university) b. Engagement data (e.g, log-ins, clicks, library visits, video watching activities, attendance, forum discussions) c. Student Personal data (e.g., background data, sensitive data) d. Progression/Retention Data e. MSS survey responses

Themes	Questions	Prompts
	<p>Note not all participants will be teaching or directly supporting students</p>	<p>Exit survey responses</p> <p>SET responses</p> <p>National student survey (studentsurvey.ie/ISSE)</p> <p>Student attendance/engagement with learning centres</p> <p>Student library use</p> <p>Student attendance/engagement with pastoral services</p>
Teaching needs	<p>Poll followed by Discussion</p> <p>What kinds of data would be particularly useful to you in your professional development?</p>	<p>a. Data about students (see prompts in the previous question)</p> <p>. For what purposes could you use that and under what conditions?</p> <p>Data about your teaching practice and how it influences the engagement and achievement of your students?</p> <p>For what purposes could you use that and under what conditions?</p> <p>c. How would you like it to receive it and how be presented to you?</p>

Themes	Questions	Prompts
Survey feedback	Thinking about FEEDBACK FROM Students, what is the most effective way to ask for feedback on your module or programme?	<p>Are module or programme surveys more useful?</p> <p>Are there other ways to get feedback from students?</p> <p>Should students be able to opt out of receiving requests to complete surveys other than key institutional surveys e.g research, other students etc? –</p>
Teaching needs	<p>Statement: We know that there are challenges in supporting different needs of learners, providing feedback, supporting skills and knowledge development. Q: How could learning analytics data be used to address these challenges by taking advantage of student data or data about your teaching practice?</p>	<p>Based on discussion PROMPT</p> <p>What learning analytics are you using now?</p> <p>What is getting in the way of using it more?</p> <p>What support would need to be in place for you to incorporate it more fully/or at all?</p>
Ethical Concerns	<p>Open Question: Are there any ethical concerns you would have about in incorporating learning analytics into your teaching practice?</p>	<ol style="list-style-type: none"> a. Data being used for purposes other than it is gathered b. Ethical and privacy concerns for staff or students c. The accuracy of analytics results

Themes	Questions	Prompts
Intervention	Is there obligation to act if individual students are identified as being at-risk of failing or underperforming in a module?	<ul style="list-style-type: none"> a. Who is best placed to act? b. Should any specific kind of training be given to teaching staff to understand, interpret and act on the analysis of student data and to accommodate the results into feedback for students? <p>Should students be allowed to opt out of supports/interventions</p>

11. Appendix 3: Staff Survey Questions

STELA - Staff Questionnaire

Dear Colleague, Discussions about the use of learning analytics have become increasingly prevalent in higher education. Learning analytics involves the collection of educational data (such as grades, survey responses, use of online resources) to better inform how students learn and engage in their programme of study.

At UL, the issue of survey fatigue has been raised at a number of fora within the University. The [Student Evaluation and Learning Analytics project](#) will look at why and how we ask students for feedback, and how we can best use this feedback. This 15 minute survey will help us answer questions such as: What insights can we draw from existing data on students' interaction with virtual learning environments and other university systems? Can we triangulate insights from multiple feedback mechanisms to provide reliable information that can be acted upon? How should we use student educational data? How can we improve our response to student feedback? The findings from this survey will inform a set of recommendations on how we ethically and effectively use and act on educational data and develop a robust system of data governance. Best Wishes, *Sinead O'Sullivan (Principal Investigator)* This research study has received Ethics approval from the Arts, Humanities and Social Sciences Research Ethics Committee (2020-02-01-AHSS) and further information about how your personal data is processed is available [here](#).

End of Block: Information about the Project

Start of Block: Information About You

Q18 Information about you

Q1 Gender

- Male (1)
 - Female (2)
 - Other (3)
 - Prefer not to Say (4)
-

Q4 Please select the role that best describes you:

- Academic Manager (Dean, Head of School, Head of Dept, Assistant Dean) (3)
- Academic Staff (1)
- Academic Department Admin staff (11)
- Staff with other roles that also teach (e.g. librarian, education developer, learning technologist) (2)
- Professional & supports services staff (12)
- Prefer not to say (14)
- Other (15) _____

Display This Question:

If Please select the role that best describes you: = Academic Staff

Or Please select the role that best describes you: = Academic Manager (Dean, Head of School, Head of Dept, Assistant Dean)

Q3 Please select the faculty that you are based in:

- Faculty of Arts, Humanities and Social Sciences (1)
- Faculty of Education and Health Sciences (2)
- Faculty of Science and Engineering (3)
- Kemmy Business School (4)

Display This Question:

If Please select the role that best describes you: = Academic Staff

Or Please select the role that best describes you: = Staff with other roles that also teach (e.g. librarian, education developer, learning technologist)

Q26 How long have you been teaching?

- Less than 5 years (1)
- 5 years to 10 years (2)
- 11 years to 20 years (3)
- More than 20 years (4)

Q19 Structures and policy for the use of data

For each of the statements below, please select your opinion as to the ideal situation in relation to the University's responsibilities in relation to the provision and use of student educational data ("student data") to support student learning.

Q29 *Ideally the University will:*

	Strongly disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)	Not applicable (7)
Regularly update students about their learning progress (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Collect and present data that is accurate (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Present students with a complete profile of their engagement with learning materials and activities (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Show how a student's learning progress compares to their/their course learning outcomes (10)

Have an obligation to act (support students) (13)

Provide me with guidance on how to access student data (1)

Provide me
with
opportunities
for
professional
development
(2)

Facilitate
open
discussions
to enhance
learning and
teaching (3)



Q17 For each of the statements below, please select your opinion as to the ideal situation in relation to how you will be able to interact with and use student educational data. ***Ideally, I will be:***

	Strongly Disagree (1)	Disagree (2)	Neither agree nor disagree (3)	Agree (4)	Strongly Agree (5)	Not applicable (7)
Able to access data about any student (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Able to access data about my students' progress (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Presented with data in a format that is both understandable and easy to read (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better able to understand my students' learning and engagement with learning materials (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appropriately
trained in
incorporating
analytics into
the feedback
and support I
provide to
students (16)

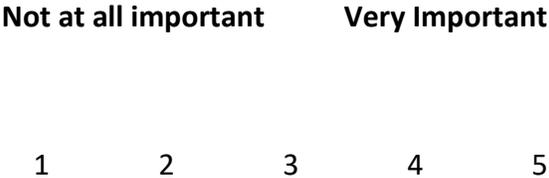


End of Block: Structures and policy for the use of data

Start of Block: Use of an access to data

Q20 Use of and access to data

Q27 On a scale of 1 to 5, where 5 is very important and 1 is not at all important, how would you rate the following?



Improving service quality ()	
Enhancing courses and modules ()	
Enhancing Individual student experience ()	
Informing you about your teaching practice ()	
Identifying students who are struggling ()	
Highlighting useful resources to students ()	
Identifying students who are disengaged ()	
Providing information on cohort differences ()	
Improving timeliness of feedback on assessment ()	
Improving quality of feedback on assessment ()	
Providing evidence to inform policy ()	
Triggering an intervention with a student ()	
Allowing students to track their own progress ()	

Q33 Which do you think are legitimate sources of educational data for you to access? (tick all that apply)

- Assessment data (1)
- Academic data from previous institution or course (e.g. 2nd level results, undergrad results) (2)
- Progression, retention, completion/graduation data (24)
- Use of learning support services e.g. ICT support service, Writing centres etc. (3)
- Use of pastoral services (4)
- Demographic data e.g. ethnicity, socioeconomic background, nationality (5)
- Logons to the VLE (SULIS or Moodle) or other online materials (6)
- Responses to Student Surveys (10)
- Use of welfare services (11)
- Financial data (21)
- Reading habits based on library loans or downloads (22)
- Use of Academic Registry Hub (23)
- Other, please specify (26) _____

End of Block: Use of an access to data

Start of Block: Student Evaluations

Q21 Student Evaluations

Q34 In your opinion, are students are over-surveyed by the University?

- Yes (1)
 - No (2)
 - Don't know (3)
-

Q13 On a scale of 1 to 5, where 5 is very important and 1 is not at all important, how would you rate the following in terms of how we deal with student feedback?

Not at all important Very Important

1 2 3 4 5

Responding to feedback ()	
Communicating actions taken in response to feedback ()	
Communicating WHY if actions have NOT been taken ()	

Q14 What might prevent you from responding to student feedback on your module, course or service?

- Item 1 (1) _____
- Item 2 (2) _____
- Item 3 (3) _____

Q15 Other than surveys, what other feedback mechanisms would be appropriate in your subject area or service?

Mechanism 1 (1) _____

Mechanism 2 (2) _____

Mechanism 3 (3) _____

Mechanism 4 (4) _____

End of Block: Student Evaluations

Start of Block: Next Steps

Q22 Next Steps

Q33 Are you interested in taking part in the next phase of this project which will involve participation in an online focus group for approximately 1 hour?

Yes (2)

Maybe (11)

No (12)

Display This Question:

If Are you interested in taking part in the next phase of this project which will involve participat... = Yes

Or Are you interested in taking part in the next phase of this project which will involve participat... = Maybe

Q34 Please provide your name and email address

Name (1) _____

Email address (2) _____

End of Block: Next Steps