

Thematic Report on Enhancement-led Institutional Review (ELIR) Reports 2013-16: Use of Institutional Data

Overview

In this report we highlight good practice and areas for development as featured in the ELIR Outcome and Technical Reports 2013-16. Key findings emerging from Outcome Reports in relation to **the use of institutional data** were:

Activity to promote good practice

- The University of Glasgow's analysis of data relating to students from MD40 backgrounds, which results in better targeting of additional support.
- The University of Edinburgh's integrated approach to the use of data, as seen in initiatives such as the PATH project, which is a student-led curriculum planning tool.
- The University of Strathclyde's online system for staff development, which allows senior managers to analyse data on staff performance in order to better target resources for staff development.
- The University of Strathclyde's systematic approach to using data from external examiners' reports and student surveys.
- The University of the West of Scotland's approach to learning analytics, which makes data accessible to staff through dashboards.
- Robert Gordon University's effective strategy in terms of self-evaluation, evident in particular through the work of its DELTA unit.
- The use of data in terms of self-evaluation at the University of the Highlands and Islands, activity that is undertaken by a wide range of well-informed staff.

Areas for development

- The University of Aberdeen was encouraged to consider how its significant initiatives, such as the implementation of OneSource, might best be evaluated.
- The Royal Conservatoire of Scotland was encouraged to finalise its IT Strategy, further develop its Management Information System, and promote the active use of data to inform discussion and decision making.
- Scotland's Rural College was encouraged to focus on enhancing the quality of its data (and the ability to disaggregate different student groups), with an aim of making the information suitable for benchmarking and decision making.

Introduction

As part of the ELIR 3 method, QAA Scotland produces regular Thematic Reports to support learning from the outcomes of individual ELIR reports. The purpose of the Thematic Reports is to inform future development work in the sector and, in particular, to inform future QAA activity including work carried out in collaboration with the Scottish Higher Education Enhancement Committee (SHEEC).

Scope and structure of this report

This report identifies material relating to the use of institutional data within all eighteen reports published in the ELIR 3 cycle. The institutions included in this report are: the University of Aberdeen; Abertay University; the University of Dundee; the University of Edinburgh; Edinburgh Napier University; Glasgow School of Art; Glasgow Caledonian University; the University of Glasgow; Heriot-Watt University; the University of the Highlands and Islands; Queen Margaret University; Robert Gordon University; the Royal Conservatoire of Scotland; Scotland's Rural College (SRUC); the University of St Andrews; the University of Stirling; the University of Strathclyde and the University of the West of Scotland.

This is an updated version of an earlier report, published in May 2016, which was based on fifteen ELIR 3 reports along with the ELIR 2 reports for those institutions still under review at the time (Abertay University; University of the Highlands and Islands; Robert Gordon University).

This report summarises examples of good practice and areas for development as highlighted in the ELIR Outcome Reports (see page 1), and the more detailed findings included within the ELIR Technical Reports (see below). It is possible that additional practice takes place in these eighteen institutions, but only those elements of practice included within the ELIR reports is included here. The report then outlines briefly the next steps in the ELIR process following the publication of the reports.

The annex includes references to the postgraduate student experience within the ELIR Technical Reports. The paragraph numbers used in the annex are taken directly from the original reports.

Use of institutional data: activity to promote good practice

This section identifies current interesting practice at the 18 institutions as identified in the ELIR Technical Reports.

Developments in institutional data management

The current ELIR cycle has seen many of our institutions investing in the technological infrastructure needed to manage data related to students. Examples include:

- the University of Aberdeen's OneSource, which will also replace other institutional systems (for example human resources, payroll and pensions)
- the University of Edinburgh's PATH system, which draws on a database of academic programmes in order to assist students in choosing their curriculum
- Edinburgh Napier University's development of dashboards and investment in staff training related to its information infrastructure
- the implementation of Glasgow Caledonian University's Integrated Student Information System, and the University of Glasgow's MyCampus
- planned improvements at Queen Margaret University

- the planned 'harmonisation of student data into a single management information system' at Scotland's Rural College
- the University of Stirling's Student Engagement Programme, proposed Enhanced Student Record, and Single Source of Course Information
- a number of projects being progressed at the University of Strathclyde - for example, the Corporate Management Information Project, the new Student Information and Management System, and a system allowing for real-time analysis of staff performance
- the introduction of dashboards for the University of the West of Scotland's Performance Management Information System (PMIS), which allow staff to analyse and take ownership of data, leading to insights that can support and inform practical development
- the redevelopment of Abertay University's Corporate Information System (CIS), which will include data dashboards
- various developments at the University of the Highlands and Islands which, it is hoped, will allow KPIs to be triangulated with the results of student surveys and evaluations; dashboards are available for live monitoring, and bespoke reports can be generated
- the planned replacement of Robert Gordon University's business information system.

Some comparable initiatives are linked less explicitly to technology, such as the University of Edinburgh's Business Intelligence/Management Information improvement scheme, including a Student Systems Road Map project aimed at making a range of data more accessible. Improvements in management information at Glasgow School of Art have meant that data can more readily be supplied for programme review.

Use of data in planning, decision making and benchmarking

It is clear from ELIR reports that, across the sector, data are being used effectively to assist in planning and decision making. Datasets such as the Key Information Set, which draws heavily on the National Student Survey and Destination of Leavers of Higher Education survey, and is published on the Unistats website, are usually disseminated internally. Decision-making processes vary between institutions, but are being enhanced by the technological developments described above, which are helping institutions to identify where better quality data (and/or staff development) are needed.

Data are also used extensively in benchmarking exercises. UK-wide surveys such as the NSS, PTES, PRES, and International Student Barometer, are commonly used as benchmarking tools. In some instances, institutions augment these surveys with their own: Heriot-Watt University conducts a survey similar to DLHE in order to track the journeys of those students who have graduated from its international campuses; the University of the Highlands and Islands has a standard online survey for all degree modules; and Robert Gordon University conduct a Student Experience Questionnaire, the results of which (alongside other data) are provided to course teams in a 'traffic light' form that allows for the quick identification of trends.

The introduction of formal key performance indicator (KPI) sets at the Royal Conservatoire of Scotland were identified in ELIR reports as a positive development. At Glasgow Caledonian University, programme teams are required to reflect on KPIs as part of routine programme monitoring. Heriot-Watt University uses centrally-produced KPIs to monitor its students' learning experience, benchmarking against Scottish and UK higher education institutions (HEIs). At present, this is limited to the UK undergraduate experience, but there are plans to broaden the scope to other student groups. Heriot-Watt also uses data from HESA and the SFC for benchmarking. At the University of Edinburgh close attention is paid to ensuring that

staff are aware of survey results, as well as the institutional expertise, which is available in terms of interpreting and acting on those results.

At Robert Gordon University - where 'big data' is also a key area for development for teaching and research - the Department of Learning, Teaching and Access (DELTA) plays an important role in analysing quantitative and qualitative data, and the ELIR team found that data are used effectively to inform decisions regarding strategy. While the work of DELTA is underpinned by data analysis, the unit's effectiveness is due in large part to its clear remit to support learning and teaching, which is well-understood across the institution. DELTA ensures that data are accessible across the institution.

Use of data in initiatives concerned with retention, progression and completion

The University of Aberdeen analyses data about full-time non-continuing students on an annual basis. At Edinburgh Napier the Retention Steering Group monitors data on student progression and achievement. Heriot-Watt University has made retention a priority area for the attention of its Learning and Teaching Board, a decision based on institutional data. The University of the Highlands and Islands has, since its ELIR 2 review, achieved significant improvement in its overall retention rates, in improvement evident in part due to improvements in data integrity and reporting. Robert Gordon University uses key data sets as part of formal monitoring and review processes, with the support of its aforementioned DELTA unit. Data relating to student recruitment, retention, progression and completion are considered in this manner.

Use of data in initiatives concerned with Widening Participation and articulation

The use of data to support widening participation initiatives is highlighted in several ELIR 3 reports, including: the University of Edinburgh, where contextual data have been used in admissions since 2004; Edinburgh Napier University, where there is a particular focus on retention; Glasgow Caledonian University, where data has provided insights about the numbers of hours of paid employment undertaken by its most disadvantaged students in addition to their studies; the University of Glasgow, the contextualised admissions model of which has been praised by the SFC, and where the MyCampus system is used to identify disadvantaged students who may need additional support; the Royal Conservatoire of Scotland, where data regarding disadvantaged students were benchmarked against comparable institutions; and the University of Strathclyde, where contextualised admissions were introduced in session 2013-14.

Several institutions are using data as a key element in projects concerned with articulation. Edinburgh Napier is a member of the Edinburgh, Lothian, Fife and Borders Regional Articulation Hub (ELRAH); the ELRAH manages an articulation database that has improved statistical reporting on students taking this route through further and higher education. At Glasgow Caledonian University data are closely monitored to evidence the efficacy of routes into degrees from Higher National Certificate and Diploma (HNC/D) programmes.

Use of data in initiatives concerned with Equality and Diversity

Data relating to Equality and Diversity are considered at the highest levels of some institutions. The University of Aberdeen's Senate examines institutional data relating to Equality and Diversity on an annual basis in order to monitor progress towards institutional goals in this area. The Queen Margaret University has an Equality Action Plan, which is informed by annually-updated data relating to every stage of the student experience from application to award (including appeals and complaints). In terms of a specific Equality and

Diversity constituency, the University of Dundee's Disability Services use data to ensure that their resources are allocated according to student need, while the University of the Highlands and Islands allows staff to access information relating to the needs and engagement of disabled students. In a wider sense, developments in data analysis at Robert Gordon University allow for examination of the experience of specific student cohorts, including online and distance learning students, as well as those who have entered via widening participation routes.

Use of data in initiatives concerned with monitoring, review and evaluation

Across the sector, the ELIR reports indicate that data are being used effectively within the context of the monitoring, review and evaluation of academic programmes. Detailed student cohort analysis is built explicitly into processes at Abertay University, the Glasgow School of Art, Heriot-Watt University, the University of St Andrews, the Robert Gordon University and the University of the Highlands and Islands. At the Robert Gordon University, data analysis is the starting point for the annual appraisal cycle, and also one of the key determining factors in institutional decisions regarding reviews of student-facing support services.

At the time of its ELIR, the University of St Andrews was piloting a fact sheet, based on what was described in the report as 'a comprehensive set of metrics', for use in internal review processes; at the University of Edinburgh, report templates for programme monitoring are pre-populated with data on student performance.

This use of data allows for fine-grained quantitative material to be considered alongside qualitative information, such as student feedback. The University of Edinburgh and the University of Glasgow are rolling out online feedback systems similar to those already in place at other institutions. Heriot-Watt University's method of collecting student feedback enables feedback from those studying with collaborative partners and alternative providers to be disaggregated.

There is also an understanding that these processes themselves generate valuable data, providing a picture of how academic programmes develop over time, and allowing for comparative and/or historical analysis. Programme monitoring data can be used to enhance the review processes themselves, for example at Edinburgh Napier University this understanding has led to more explicit incorporation of student feedback into module review.

Student partnership and student-led initiatives

The University of the Highlands and Islands has five Subject Network Student Officers (SNSOs), who work in partnership with the University to facilitate student engagement and strengthen communication between the institution and its students. The SNSOs work with data from student surveys and focus groups to produce reports for the University. Similarly, Robert Gordon University have made student partnership a clear strategic priority, with data from student surveys underpinning this approach.

The University of Strathclyde Students' Association produced a 'Best Practice Report' based on analysis of data from their Teaching Excellence Awards, a project praised by the ELIR panel as imaginative and valuable.

Use of institutional data: areas for development

This section of the paper outlines the areas for development identified relating to the use of institutional data in a higher education institution in the ELIR Technical reports.

Challenges for small specialist institutions

The small specialist institutions within the sector (namely Glasgow School of Art, the Royal Conservatoire of Scotland, and Scotland's Rural College) face specific challenges with regard to the management and analysis of big data. While developments are underway, it is worth acknowledging that the benefits of the systematic use of data may be relative to the amount of data held by the institution, meaning that, for example, extensive investment in new IT equipment is harder to justify as an institutional priority in a small organisation.

Data integrity

The quality of data appears to vary across the sector. Scotland's Rural College is still working towards a unified body of student data following the merger that brought it into existence; the systematic use of data at an institutional level will become evident over time. As cohort and class sizes are small, the identification of trends in progression, retention and completion will be a particularly challenging - and particularly important - element of this work.

Consistency in use of data within institutions

The use of data across institutions, even for specific purposes, can be variable. This is evident most specifically at the University of Stirling, where the ELIR team noted a range of practice relating to how student outcomes and feedback were used in programme monitoring.

Building institutional expertise

It is unclear whether expertise resides in all institutions to analyse big data in effective ways. Specifically, Queen Margaret University acknowledged the need to strengthen its capability in this area, but it is likely that other institutions will recognise a similar gap in expertise. The Royal Conservatoire of Scotland has been encouraged to complete its IT Strategy, and to use data and KPIs more systematically.

Student surveys

Key UK-wide surveys are used as benchmarking tools within institutions, but the use of the data varies: Glasgow Caledonian University's report highlighted that data from the NSS were used more extensively than those from the postgraduate experience surveys. Queen Margaret University was encouraged to review its approach to the strategic management of surveys (including internal ones) in order to promote more consistent approaches and avoid 'survey fatigue', both of which are likely to have an effect on the reliability of the resulting data. The University of the Highlands and Islands was examining how best to communicate the actions taken as a result of student feedback to ensure that students were aware of the value of their participation in surveys.

What happens next?

QAA Scotland follows up the ELIR outcomes with institutions individually through annual discussion visits, and each institution is required to produce a Follow-up Report indicating how it has addressed its own ELIR outcomes. QAA Scotland also promotes collaborative working between institutions to share good practice and to find collective solutions to common areas for development. Each institution is invited to participate in a follow-up event to engage with the ways other institutions who were reviewed at around the same point of the ELIR cycle have addressed their review outcomes.

Index of references to the use of institutional data in the ELIR 3 Technical Reports

A link to each institution's ELIR 3 Technical Report is included in the left-hand column. Paragraph numbers are indicated in the middle column.

Institution	Para	Topic
University of Aberdeen	4	Development of OneSource
	22	Analysis of non-continuation data
	24	OneSource
	26	Equality and Diversity
Abertay University	10	Role of ACMs in ensuring accuracy of Key Information Set
	27	Use of data in implementing strategy
	36	Redevelopment of Corporate Information System
	53	New Assessment Policy in response to NSS data
	54	Electronic submission of assessment and feedback
	111	Redevelopment of Corporate Information System and piloting of Management Information Dashboards
	112	Use of data in annual monitoring, review and enhancement
	113	Use of data in annual monitoring, review and enhancement
	126	Use of data in self-reflection and programme/curriculum development
129	Responsibility for Key Information Set	
University of Dundee	21	Use of Key Information Sets and data relating to the student population
	26	Use of data in relation to support for disabled students
	82	Use of data to inform planning
	83	Management of information and provision of data to programme teams
	86	Use of HESA data relating to other institutions
University of Edinburgh	25	Use of data in relation to Widening Participation initiatives
	26	Contextual admissions
	105	Use of data in self-evaluation and monitoring of strategic plan

	107	Use of data in annual monitoring, review and enhancement
	108	Use of data in annual reporting of quality assurance/enhancement
	115	Electronic course evaluation software
	117	Mid-term evaluation of the Student Experience Project (use of survey data)
	118	Widening access to core data for business intelligence/management information purposes
	119	Widening access to core data for business intelligence/management information purposes, including development of dashboards through the Student Systems Road Map
	120	Student-designed and delivered PATH project (providing students with data in order to facilitate their decision making)
	121	Information contained in the Advance Information Set relating to the University's commitment to producing data to enable enhancement
	122	Use of external data and reference points to inform self-evaluation
	126	Endorsement by the ELIR panel of the University's approach to gathering and using data
<u>Edinburgh Napier University</u>	18	Development of new management information systems and dashboards
	23	ELRAH's national articulation database
	24	Role of Student Retention Steering Group in overseeing retention data, including that relating to students from widening participation backgrounds
	26	Various roles of management information systems
	27	Development of dashboards
	71	Planned Enhancement Themes work examining data relating to articulating students
	110	University's self-reflection as a result of developing Advance Information Set
<u>University of Glasgow</u>	18	Use of contextual data
	20	Use of data in relation to Widening Participation initiatives
	33	Use of software to enhance student feedback mechanisms, with a view to more systematic use of the resultant data

	36	Endorsement by the ELIR panel of the University's approach to gathering and using data
	67	Use of management information to inform self-evaluation
	68	Establishing Central Surveys Unit to enable better analysis of survey data
	74	Development of Key Information Sets and resultant improvements in accuracy of data
<u>Glasgow Caledonian University</u>	11	Data from quality assurance mechanisms are used to measure the impact of change
	18	Data relating to students from a widening participation background
	19	Data relating to students from a widening participation background
	44	Use of the National Student Survey, Postgraduate Research Experience Survey and Postgraduate Taught Experience Survey
	63	Data relating to students from a widening participation background
	116	Use of data in programme and school level self-evaluation
	118	Improvements in the production of, and access to, management information
	126	Management of Key Information Sets
<u>Glasgow School of Art</u>	73	Move towards centralised student record system
	74	Use of management information in programme review
	75	Use of data in management of part-time staff
	83	Endorsement by the ELIR panel of arrangements for ensuring the accuracy of information provided
<u>Heriot-Watt University</u>	14	Use of KPIs to inform management and
	27	Use of data to identify priority areas for action (for example, retention)
	51	Use of DLHE results and supplementary institutional surveys
	99	Inclusion of data in annual monitoring
	107	Production and use of KPIs associated with the student population
	110	Production of KPIs associated with the student population

	129	Collection and use of data from student feedback mechanisms
<u>University of the Highlands and Islands</u>	26	Use of data to monitor retention and non-continuation
	28	Actions taken on retention and non-continuation as a result of data monitoring
	32	Use of data in relation to support for disabled students
	45	Use of data by Subject Network Student Officers
	49	Collection of data from student feedback mechanisms
	50	Efforts to enhance student awareness of action resulting from student feedback
	132	Ongoing enhancement of KPI data and use of KPIs
	133	Development of management information in order to improve analysis of survey and evaluation
	140	Database generated from the programme approval process
	143	Use of management information to inform self-evaluation
	154	Use of programme data by assessment boards and programme committees
156	Monitoring of data relating to collaborative activity	
<u>Queen Margaret University</u>	16	Use of data to inform Equality Action Plan
	66	Use of management information to inform self-evaluation
	67	Management of student surveys and their results
	68	Development of student records system, especially in relation to withdrawal and retention
	78	Use of management information to inform self-evaluation; development of management information system to further enable this
<u>Robert Gordon University</u>	14	Range of data that is used to underpin strategic decisions and prioritise areas for action
	15	Relationship between strategic planning and data such as KPIs and appraisal data
	26	Use of data to monitor performance in relation to the student population
	32	Use of student data and survey feedback to determine needs of students according to mode and place of study

35	Role of data in partnership working with RGU: Union
52	Use of data and learning analytics to identify areas for development in the context of the Enhancement Themes
55	Suggestion that the University might further use data to gather student views relating to the pace of learning
59	Use of data and learning analytics to identify areas for development in the context of Focus On
79	Use of data to identify 'pockets of variability' in terms of practice
80	Role of DELTA in wider development activity across the institution
88	Role of programme and student data in annual appraisal process
89	Role of data in institution-led subject review (six-yearly)
90	Use of data from external examiners' reports
93	Use of data in evaluating practices relating to the student learning experience
94	Use of data in the annual appraisal cycle
96	Use of data in the annual appraisal cycle
103	Use of data in determining themes for periodic Student-Facing Support Services Review
106	Use of data to monitor and analyse institutional effectiveness across the totality of the student lifecycle; provision of data in accessible forms by DELTA
107	Review and analysis of student satisfaction data
108	Use of survey data
111	Use of data in self-evaluation
114	Use of data in forming and evaluating strategic approach
115	Use of external reference points, quantitative and qualitative data in quality assurance processes
116	Provision of data for enhancement by DELTA; appointment of Director of Planning
119	Maintenance of databases of courses and modules
121	Use of management information to inform self-evaluation; provision of data by DELTA

<u>Royal Conservatoire of Scotland</u>	7	Suggestion that the institution should prioritise completion of IT strategy to support intended developments in data management
	17	Use of data for benchmarking on widening participation; suggestion that better use might be made of data to inform strategy and monitor impact of initiatives
	35	Joint project with other conservatoires to track student cohorts over 10-15 year period
	58	Use of management information to inform self-evaluation; suggestion that more use might be made of quantitative data and target setting
	64	Suggestion that more systematic use might be made of data in programme evaluation
	65	Development of formal KPI sets
	69	Suggested areas for development, including more systematic use of data and KPIs
	77	Suggested areas for development, including more systematic use of data and KPIs
<u>Scotland's Rural College (SRUC)</u>	8	Suggested areas for development, including the effective management of data including that relating to student progression and achievement
	21	Ongoing development of management information system and consistent data sets; use of student progression data at individual programme level
	22	Suggested disaggregation of data to enhance Equality and Diversity initiatives
	25	Suggested disaggregation of data to enhance Equality and Diversity initiatives
	58	Suggested disaggregation of data to enhance Equality and Diversity initiatives
	88	Suggestion that data on admissions, progression and completion could be improved for annual monitoring
	115	Ongoing development of management information system and consistent data sets
	128	Ongoing development of management information system and consistent data sets
<u>University of Stirling</u>	29	Developments in how student data are collected and monitored

	30	Proposed Enhanced Student Record
	102	Use of data to support self-evaluation and strategic objectives
	104	Use of data in annual monitoring and periodic review processes
	106	Use of data in annual monitoring process and
	109	Use of data to support self-evaluation; use of KPIs to inform schools' annual planning statements
	117	Key Information Sets; course database
<u>University of Strathclyde</u>	14	Use of data to inform decision making
	19	Developments in data management
	25	Contextual admissions
	34	Production of Best Practice Report by USSA, based on analysis of data from Teaching Excellence Awards
	62	Technologically-enabled analysis of staff performance in real time
	82	Analysis and reporting of management data in relation to the Performance Measurement Framework
	83	University committees responsible for management of data
	85	Development of professional services and processes to help the institution use data more effectively
<u>University of St Andrews</u>	115	Sources of data to support reviews and self-evaluation, including NSS, external examiner reports, internal reviews, the central records system, and the teaching support system
<u>University of the West of Scotland</u>	12	Systematic processes for reviewing comparative performance data across the institution
	13	Use of online dashboard and learning analytics
	36	Use of data by School Enhancement Developers
	80	Role of data analysis in future annual review process
	89	Management information to support review, monitoring and examination processes, including using NSS data for benchmarking
	100	Continued improvement in the use of data for informing practice

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