An institutional and sector-wide approach to implement learning analytics

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About the University

- Scotland's 3rd largest university with 24,000 students & 3,500 staff

History:

- Founded in 1796 by Professor John Anderson – an educational reformer with the goal of education for all
- 'Useful Learning'

Today:

- £500m campus renewal
- Cutting-edge laboratories and facilities including Technology & Innovation centre
- "The Place" Learning and Teaching Hub

Strathclyde's Education Context

Course Programmes	No.*
Undergraduate Programmes (BA, BEng, MEng, BSc, MSci, BBA, LLB)	243
Postgraduate Programmes (MSc, MEd/PGDip/PgCert, March, LLM, Mlitt)	155
Research Programmes (PhD, MPhil, MRes, EngD, DBA, Industrial Doctorate, EdD)	32

* Programmes offered for 2016/17

All data from 2015/16 Academic Year

Level of Study	Student Headcount
UG	13,160
PG	4,990
PGR	1,500
TOTAL	**21,978**

Indicator	%
UG Retention	94.2%
PG Retention	97.5%
PGR Retention	96.2%

Mode of Delivery	Student Headcount
Attendance	17,776
Distance Learning	1,852
Open Learning	360
Research	1,990

Engaging with Strathclyde's Distinctiveness

- Vision and Mission
  - The place of useful learning
  - A leading international technological university
  - Innovation, economic impact and socially progressive

- Strategic Themes
  - Outstanding student experience
  - Develop an institutional strategy to establish the value of Learning Analytics to support individual student learning and teaching excellence.

Jisc Learning Analytics Readiness Assessment

- Four areas:
  - Culture, Processes, People, and Technology Infrastructure
- The key recommendation is:
  - Implement a number of pilots using the VLE as the key data source to enable the University of Strathclyde to enhance institutional understanding, capacity, and capabilities for a centrally managed learning analytics service.
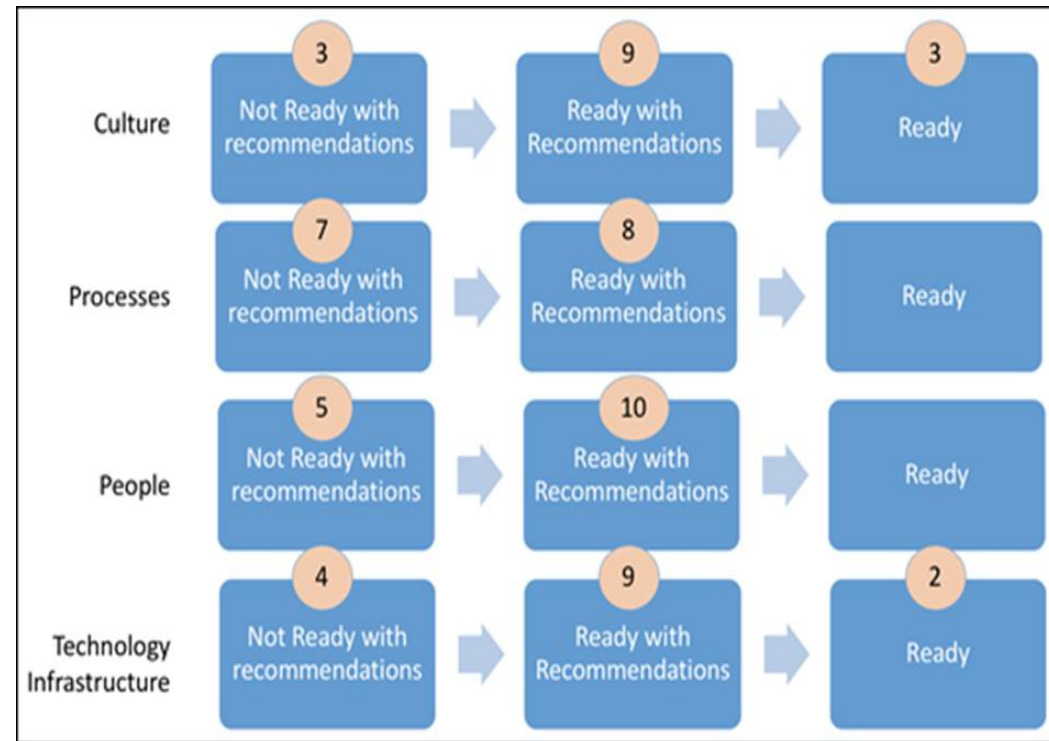
Jisc Learning Analytics Readiness Assessment - Outcomes

Strathclyde Outcome

Taken from:
Jisc Learning Analytics Readiness Project, University of Strathclyde, Final Report – 2nd February 2016

Aggregated Results (15 UK HEIs)

Taken from:
https://www.linkedin.com/pulse/3-steps-you-can-take-drive-institutional-adoption-learning-ramsden

Pilot Projects

- 3rd year Electronic & Engineering class
- 69 students
- Incorporating VLE data with practical lab attendance data

- 1st year Computing and Information Studies Class
- 101 students
- Online engagement currently outwith VLE, replicated within VLE?

- Postgraduate distance learning class in Child & Youth Care Studies
- 19 students
- Incorporating VLE data with library e-resource access

- Postgraduate elective class on MBA
- 23 students
- Incorporating Progress Bar use on VLE and gathering student feedback on current intervention strategy

- Postgraduate class on Teaching, Learning and Assessment
- 28 students
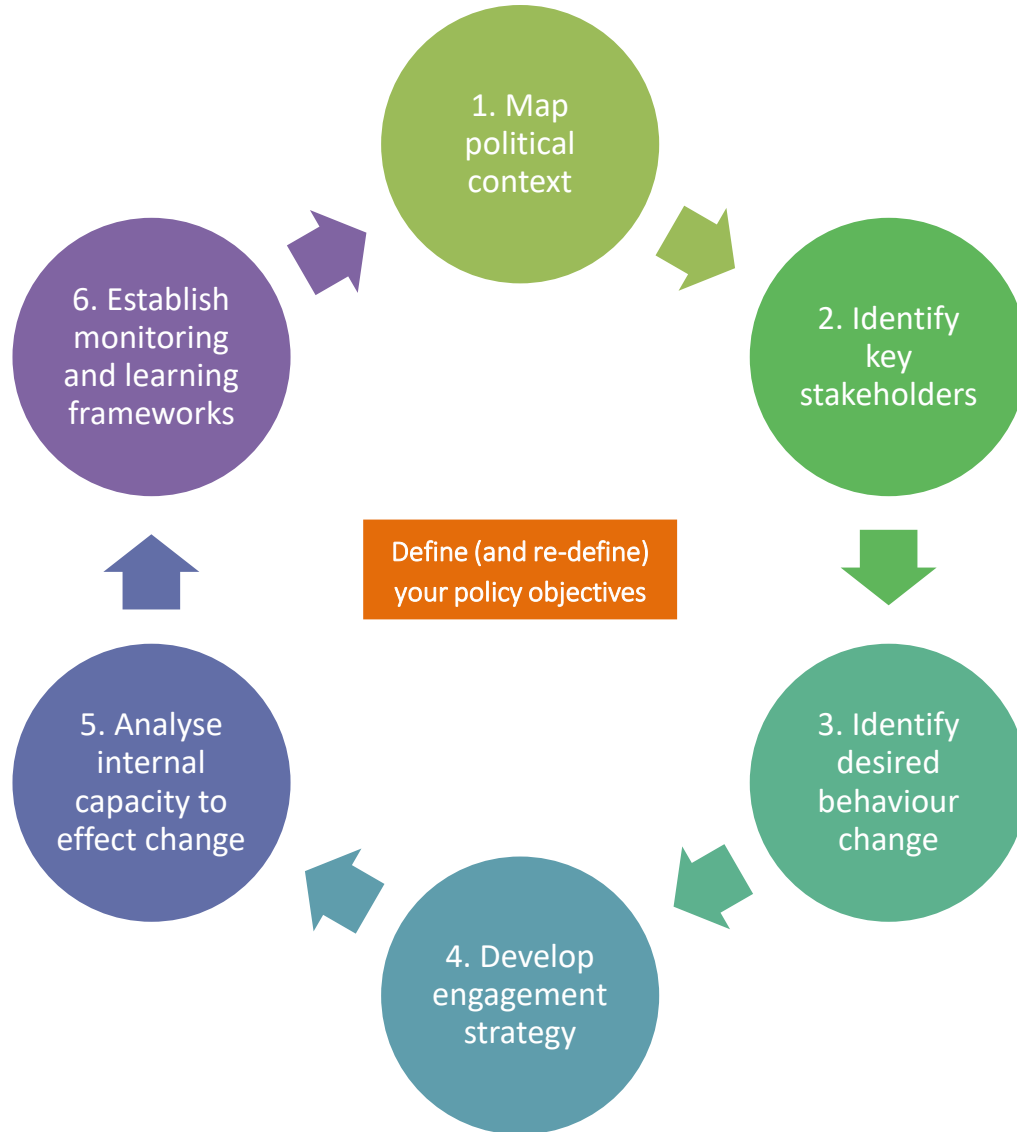- Piloting use of Jisc Study Goal App

Pilot Projects:
Evidence for Future Implementation

- Formal reporting structure
  - Class specific recommendations
  - Wider learning analytics implementation recommendations
- Recommendations so far
  - Students responded to an individualised approach to interventions by email however this is not practical for large classes
  - Students liked being able to view progress within a class and perceived a positive change in behaviour
  - Timing of intervention is important
  - Intervention strategies may not impact on student attainment; however they may contribute to an improved learner journey

Rapid Outcome Mapping Approach (ROMA)

- Developed as a tool by the Overseas Development Institute to develop strategies for evidence-based policy-making

- Modified by the Supporting Higher Education Implementing Learning Analytics (SHEILA) Project group

  – To assist European universities to become more mature users and custodians of digital data about their students as they learn online

ROMA

1. Map political context

2. Identify key stakeholders

3. Identify desired behaviour change

4. Develop engagement strategy

5. Analyse internal capacity to effect change

6. Establish monitoring and learning frameworks

Define (and re-define) your policy objectives

Scottish HE Sector

- Enhancement-led approach safeguarding academic standards and enhancing the quality of the student experience offered by Scottish higher education institutions

- Oversight by the Quality Assurance Agency Scotland

- Enhancement Theme
  - Varies in length from 1-3 years
  - Funding provided by QAAS
  - Institutional, collaborative and sector-wide work

Enhancement Theme 2017-2020

- Evidence for Enhancement: Improving the Student Experience

- Institutional strand of work in learning analytics
  - Year 1: Student engagement
  - Year 2: Digital literacy

- Leading a collaborative cluster of 13 HEIs in learning analytics, largest collaborative cluster for any Enhancement Theme

Collaborative Cluster

- Three strands
  - Learning Analytics Framework
  - Engagement – Staff and Students
  - Applications of Learning Analytics
- Completed Year 1
  - Hosted 2 workshops
  - 3 student interns funded by QAAS
- Funded Year 2
  - Online resource
  - Sector-wide student focus groups
- Proposed Year 3
  - Sector-wide policy development
  - Sector-wide staff focus groups
  - Showcase event – show, tell, share