Learning analytics research group

The Open University, 26th June 2019

09:30	*Arrival and coffee*	
10:00 – 10:15	About the group, arrangements for the day, introductions	Niall Sclater
10:15 – 10:30	Welcome to The Open University	
10:30 – 11:30	Update on learning analytics developments at The Open University	Prof Bart Rienties
11:30 – 12:00	Brief updates on member research projects	Members
12:00 – 13:00	*Lunch*	
13:00 – 14:25	Mental health and wellbeing analytics – update on latest developments and workshop	Tim Coughlan & Kate Lister, OU Catherine Grout, Jisc
14:25 – 14:40	*Tea / coffee*	
14:40 – 16:00	Curriculum analytics – update on latest developments and workshop	Niall Sclater & Paul Bailey, Jisc
16:00	*Close*	

Curriculum

1. **Embedding Learning Analytics into Programme Review and Curriculum Design** – Dr Ed de Quincey, University of Keele
2. **Visual analytics tool for student workload** – Dr Dave Perkins, University of Bangor
3. **Student engagement with assessment: Identifying the role of learning analytics** – Dr Carmen Tomas, University of Nottingham & Prof Simon Walker, University of Greenwich

Institutional evaluation

1. **Learning analytics evaluation exercise** - Martin Lynch, University of South Wales
2. **Impact & effectiveness of LA roll-out** - Dr Christine Couper, University of Greenwich
3. **How staff & students understand the LA presented to them** – Dr Alex Masardo, University of Gloucestershire

Mental health & welfare

1. **Linked Journeys: Linking learning analytics with study journey representations to understand patterns in students' mental health** – Dr Tim Coughlan, The Open University

Curriculum Analytics

Niall Sclater, Paul Bailey

Image © Niall Sclater 2009

Analytics Questions – from institutions

As a **planner**
I want benchmarking metrics about courses/modules so I can judge if we are achieving good pass rates, student engagement, etc.

As **VC**
I want to know if the new implementations of learning technologies are leading to improvements i.e. Student satisfaction and pass rate/success/retention

As a **manager**
I want to see the metrics that are associated with more successful modules - i.e. Student satisfaction and pass rate/success/retention

As a **lecturer**
I want to find out what resources the students have looked at so I can compare with intended reading list

As a **course designer**
I want to be able to see the actual vs intended learning design/activity for a module and work with course team on improvements

Categorising analytics by intervention

1. Improve individual student performance
2. Improve teaching and learning quality
3. Improve support systems and process
4. Develop strategy

Emerging types of analytics in education

No aspect of the curriculum should be implemented unless there is a way of collecting data to evaluate its effectiveness

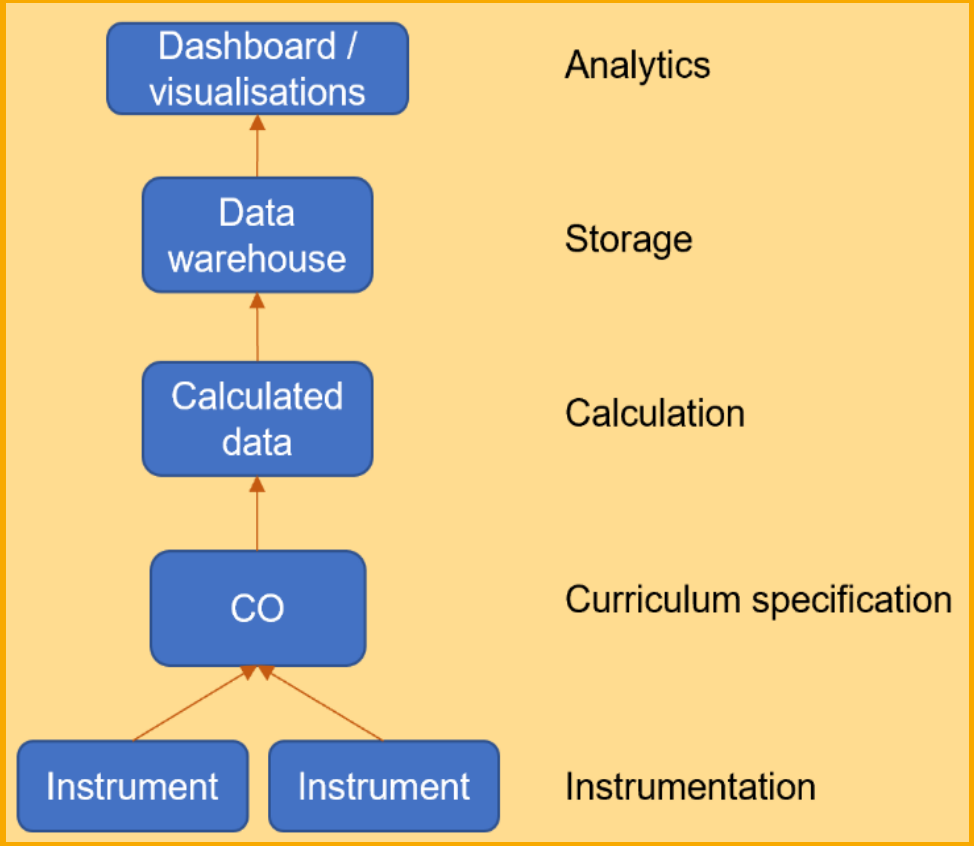
Curriculum objects

Curriculum object type: Lecture	
Descriptive data **Course: Mathematics 101** **Lecture number: 03/10** **Learning objective: Understand polynomial representations** **Lecturer: Joe Simpson** **Location: LT203**	Attributes - Core/supplementary - Compulsory/optional - Digital/physical - Scheduled/in own time - Formative/summative - Group/individual - Assessment method - % of final mark - Prerequisite - Adaptive release
Instrument: Attendance monitoring system **Measured data** **Student ID; date/time**	
Calculated data **Number of students attending** **Percentage of enrolled students attending**	Expected range 40-90%

Curriculum object type: Lecture	
Instrument: Audience response system **Measured data** **Student ID; question ID; response (correct/incorrect)**	
Calculated data **Percentage of attendees correctly responding to each question** **Average score over all questions**	Expected range 70-100% 70-90%

- Lecture, including
  - Presentation
  - Individual activity (e.g. self-check)
  - Group discussion
  - Audience response
- Physical textbook
- Online textbook
- Lab
- Seminar/tutorial
- Reading material
  - Journal article
  - LMS content page
- Audio
- Video
  - Primary content
  - Supplementary
  - Interactive
  - Lecture capture
- Interactive
- Online content (different ways to present it)
- Self-declared data
- Assessed activities
  - Essay
  - Exercise
  - Artwork
  - Code
  - Project
  - Presentation
  - Exam
  - Reflective journal
  - Goal setting
  - Forum
  - Survey
- Online meeting
- Group meeting (without tutor)
- Student feedback
- Office hours

A curriculum object describes an aspect of the curriculum with the data and the analytics that can be used to enhance it


Dashboard / visualisations
Analytics
Data warehouse
Storage
Calculated data
Calculation
CO
Curriculum specification
Instrument
Instrument
Instrumentation

Analytics Questions – activity

What analytics questions interest your institution?

What courses/modules are of particular interest?
Specific subjects or groups of interest and why?

Activity: What data measures do you have to answer each question?

What measures do you have (or need) to answer these questions? E.g. attendance, online activity, student feedback, etc.

What frequency? (daily, weekly, monthly, …)
What is the current frequency vs required?

Activity: What interventions can you make?

For each question:

What do you hope it would tell you?

What can you do about it?

Timetable…

Phase 1: Feasibility

May- June: Sign-up to pilot

July : Extract Data (2 courses/20 modules)

Aug: Share visualisations

Sept: Prioritise and scope

Phase 2: Pilot implementation

Sept 2019 – July 2020

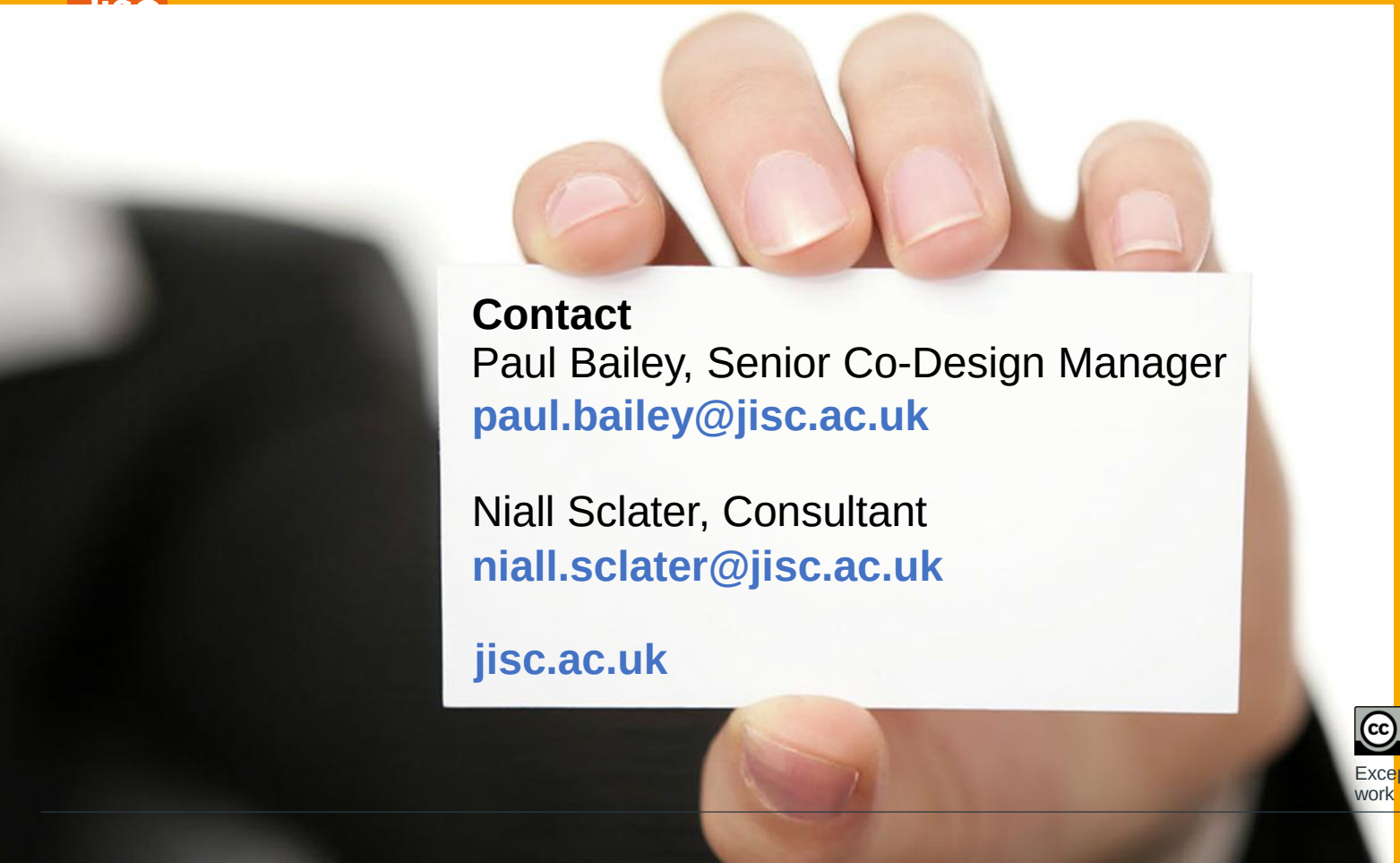
Options…

Pilot: 4-6 institutions

1. Sign agreement
2. F2f meeting – agree questions
3. Extract data and analyse
4. Share outcomes

Community:

1. Join community
2. Get feedback on outcomes
3. Input to scoping pilot
4. Option to be early adopter of pilot implementation



Contact

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