

# From Silos to Synergy

Building bridges between quality and data



Connecting and developing  
HE professionals

# Overview:

- Introductions
- SWOT analysis of the current data challenge
- Data strategy
- Futureworks case study
  - Initial projects
  - Curriculum Metrics Dashboard

# Introductions: PollEverywhere

- We will be speaking to you about data collection and analysis.
- We would like to do both of these things with you in real time today.



# Introduction: Martha Horler



[www.thedatagoddess.com](http://www.thedatagoddess.com)

@thedatagoddess

Worked in HE for 15 years, in programme administration, admissions, attendance monitoring, placements, registry, enrolment, data quality.

At Futureworks for the last year – Data & Compliance Manager: Responsible for everything involving data – data returns, enrolment data, systems development, TEF, student records, timetables, data governance, GDPR, data analysis & statistics, NSS, Graduate Outcomes, SLC data, CRM, Data Futures, exam boards....

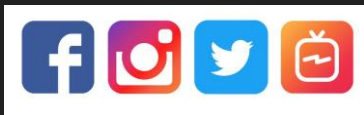
Fellow of the AUA, committee member of the Student Records Officer Conference, member of the AUA Professional Development Group.

# Introduction: Dr. Carmen Corral



- **Head of Academic Quality & Enhancement**, Futureworks
  - Safeguarding/Prevent/Health & Safety
  - Data Returns (before Martha arrived)
  - HE Coordinator with our awarding university
- **Deputy Coordinator**, AUA Quality & Standards Network
- **Co-Chair**, Independent HE Quality Managers Network
  - TEF Review, Dame Shirley Pearce
- **Member**, HESA Graduate Outcomes Steering Group

<https://aua.ac.uk/network/quality-and-standards/>



# Poll 1:

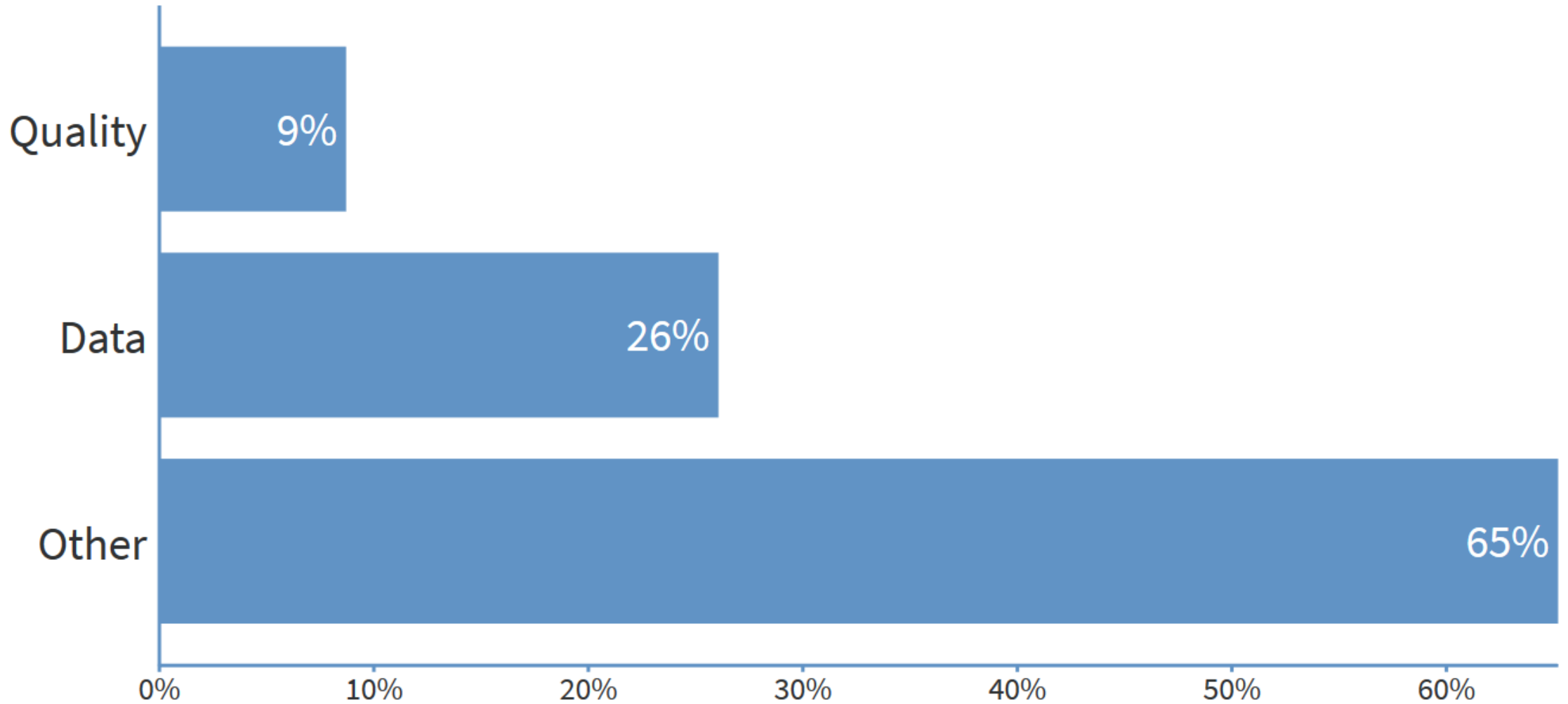
- Please go to: **[Pollev.com/marthahorler363](https://Pollev.com/marthahorler363)**.
- Then, let us know what your substantive role currently is: Quality, Data or Other.



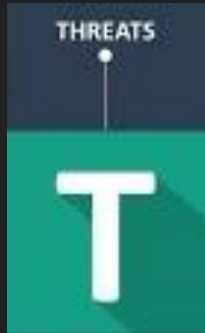
# What is your substantive role?



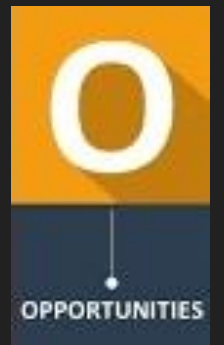
When poll is active, respond at [PollEv.com/marthahorler363](https://PollEv.com/marthahorler363)



# The Data Challenge: Threats & Opportunities



- The HE sector is in a period of unprecedented change in terms of regulatory and market pressures.
- HE providers are increasingly assessed and ranked by new and more metrics.
- These metrics are increasingly moving to a one-size-fits-all approach.
- Data is an institutional asset that can be used to enhance quality and provide a competitive advantage.
- Institutions that respond positively to this shift will reap the rewards and reduce risk.





# The Data Challenge: Weaknesses



- Different, specialist teams manage different data or the same data in different ways/with different software.
- Teams and people who have never dealt with data are now having to do so in real time.
- There is an inconsistent understanding of the terms and data available.
- Data fluency needs improvement.
- A data fluent culture must be cultivated over time.

# The Data Challenge: Strengths

- Most institutions hold lots of data, dating back many years.
- Data fluency can be improved without spending a lot of money.
- Simple tools can be developed internally to aid data fluency.



<http://thedatagoddess.com/2017/04/05/data-fluency-presentation-april-2017/>

# Poll 2:

- At your tables, please discuss the various regulators and data sets that you are aware of and how they effect your work.
- Then, go to: **[PolleEv.com/marthahorler363](https://PolleEv.com/marthahorler363)**.
- Then, enter an area (acronym, data set, regulator) that you would like to know more about.



## What do you need to find out more about?

**i** Poll is full and no longer accepting responses



A word cloud of university abbreviations. The largest and most prominent words are 'hesa' in green, 'ofs' in blue, and 'snss' in blue. Other visible abbreviations include 'ref' in brown, 'bptc' in purple, 'qaa' in green, 'bi' in green, 'ilr' in green, 'tef' in green, 'go' in blue, 'dlhe' in brown, 'pres' in green, 'leoptes' in brown, 'delhe' in brown, 'lpc' in green, 'ucas' in green, and 'gos' in blue.

# Data Strategy

1. Leadership and governance: strategy and implementation
2. Data fluency
3. Organisation and people
4. Processes and systems
5. Data as an asset

Mission → Values → Vision → **Strategy** → Plan

*“Strategy is a fancy word for coming up with a long-term plan and putting it into action.”*

*Ellie Pidot*

# Data Strategy: Our Objectives



- Build up robust data sources that can be used to produce reliable returns, analysis and meet operational requirements.
- Produce analysis tools that various stakeholders can use to make evidence-based decisions.
- Develop processes to automate the flow of data.
- Reduce the manual entry of data and duplication of effort.
- Deliver value to stakeholders.

# Data Strategy: Our Objectives

- As a data specialist, need to move from “my data” to “our data”.
- Equipping various stakeholders to be able to say: “I can find data on that”.
- Equipping and informing senior management to be able to say: “I understand our data”.

# Poll 3:

- At your tables, please discuss what your team/organisation isn't doing or can't do because you don't have access to the right data.
- Then, go to: **[PolleEv.com/marthahorler363](https://PolleEv.com/marthahorler363)**.
- Then, enter your most pressing concern.





# What can't your organisation/team do because you don't have or know how to right data?



When poll is active, respond at **PollEv.com/marthahorler363**

“Availability of student grades to personal tutors via dashboard”

“How work based learning (of all types) affects graduate outcomes”

“To compare attainment across intakes.”

“Different and numerous data systems that don't talk to one another”

“Different screens don't talk to each other- trusting detail”

“Capturing the routine/ low level queries that get raised by students etc that could early warnings”

“we don't all speak in code - teams understanding this is important to get a job done quickly.”

# Futureworks Case Study: Initial Projects

- The General Data Protection Regulation (GDPR) was our first challenge.
- We needed to:
  - agree a records retention schedule.
  - clear out years of stored paperwork to ensure we were compliant (and to make some space).

# Initial Projects: Data Capture

- Smaller projects to capture data on:
  - Curriculum data
  - Module Evaluation Questionnaires
  - National Student Survey analysis
  - Enrolment numbers



# Futureworks Case Study: Curriculum Metrics Dashboard

- We identified the need to:
  - monitor and assess the quality of teaching via a series of indicators informed by the Teaching Excellence and Student Outcomes Framework (TEF).
  - provide an evidence-based foundation upon which strategic and management decisions could be made.
  - make inroads toward personalised learning for all students.
  - use the data we are starting to capture so that it becomes an institutional asset.

# Curriculum Metrics Dashboard: Approach



- One, centralised tool.
- Identify who has access to what information.
- Agree data sources and what information was needed.
- Agree best way to present data.
- Train staff to use the data.
- Regularly monitor usage and use feedback to continuously improve.

# Curriculum Metrics Dashboard: Technology Used/Planned



# Curriculum Metrics Dashboard: Indicators

- Quality of Teaching:
  - Retention and progression
  - Assessments
  - Good honours
  - Graduate outcomes
  - NSS and MEQ outcomes
- Management Information:
  - Recruitment and admissions
  - Access & Participation
- Personalised learning for all students:
  - Curriculum database



# Curriculum Metrics Dashboard: Data Preparation

- Systems at Futureworks are mostly fairly new (built in last 12 months).
- Getting data from different sources to be compatible took some time.
- If you have a data warehouse already this will speed up this process.
- Be clear about how calculations are done.
- What data don't you want to show?
- Be clear about what questions you want answered – too many and people may not engage.



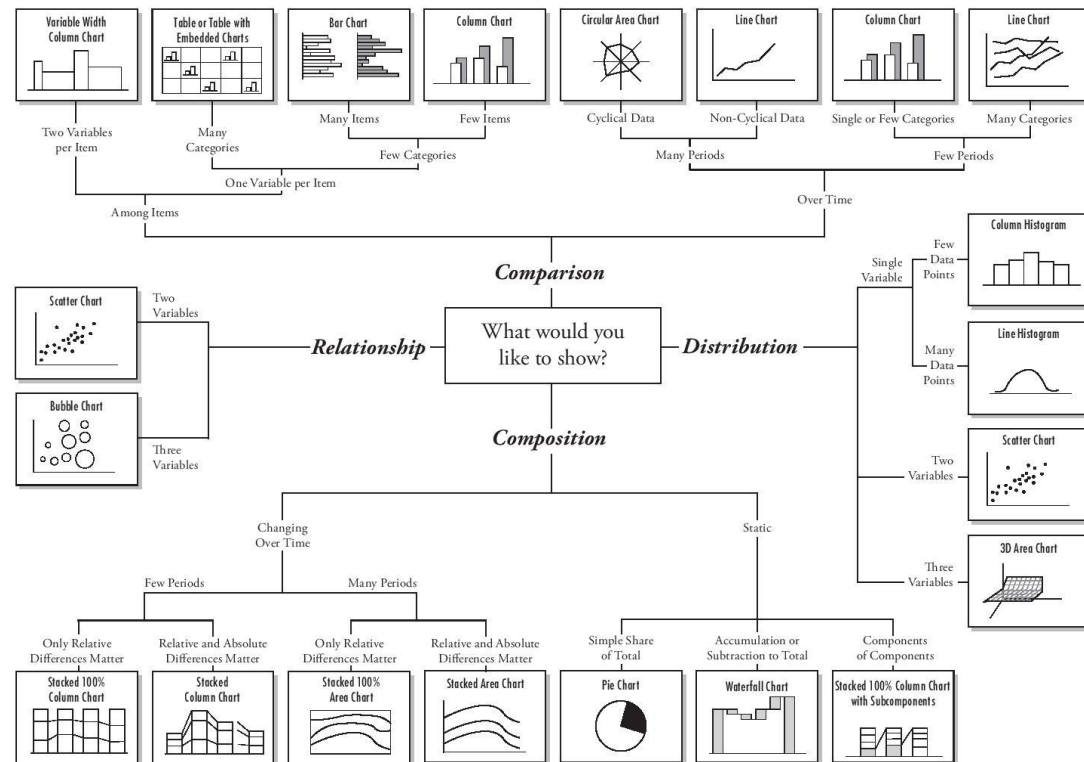


# Curriculum Metrics Dashboard: Data Visualisations

- There are many different ways and tools (free and paid) to visualise data.
- Different stakeholders respond to and interpret data visualisations differently.
- ⑩ Different types of visualisations are better for showing:
  - Relationships
  - Correlations
  - Comparisons
  - Distributions

# Curriculum Metrics Dashboard: Visualisation Types

## Chart Suggestions—A Thought-Starter




# Poll 4:

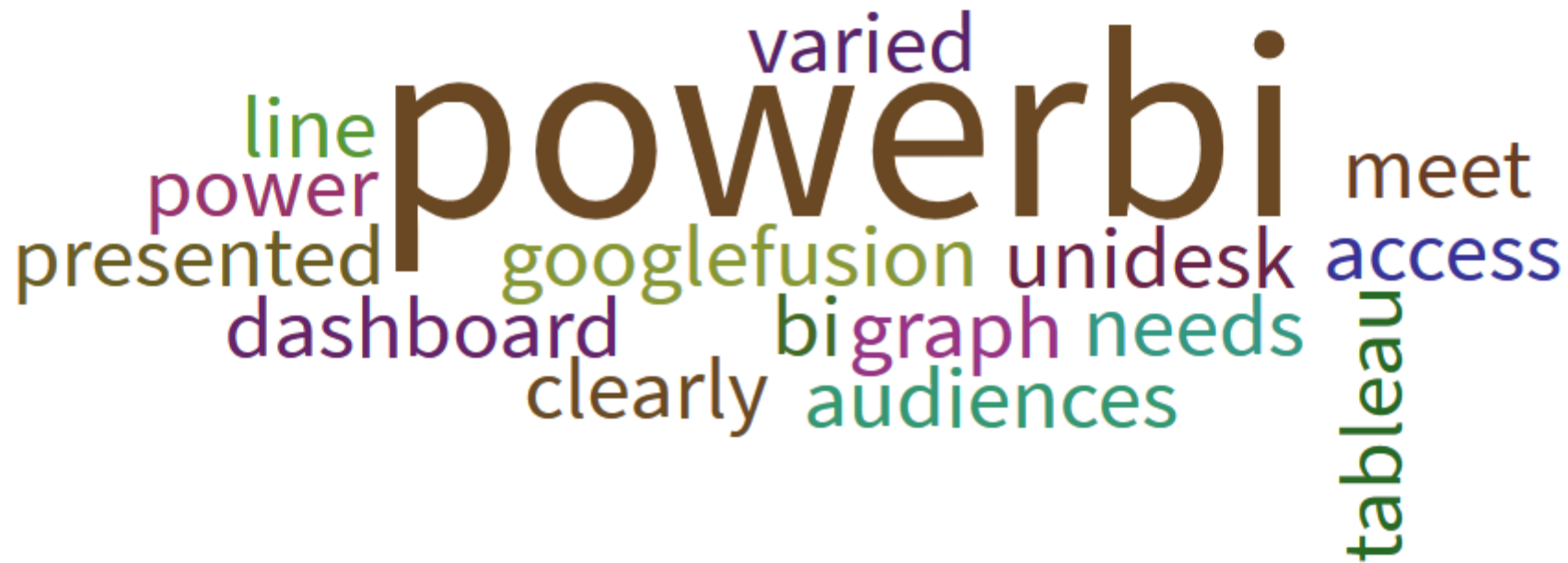
- At your tables, please discuss the different visualisation tools (e.g. software packages) you use along with what's good and not so good about them.
- Then, go to: **[PolleEv.com/marthahorler363](https://PolleEv.com/marthahorler363)**.
- Then, enter one of your favourites.



# What is your favorite visualisation tool?

 When poll is active, respond at **PollEv.com/marthahorler363**

 Text **MARTHAHORLER363** to **07480 781235** once to join



# Curriculum Metrics Dashboard: Data Visualisation Best Practice

- Start small and build from there.
- Use appropriate charts.
- Regular check-ins with users to determine if on right lines.
- Focused screens for specific roles – maybe split by time of year?
  - Small
  - Concise
  - Direct
  - Clear
  - Customisable

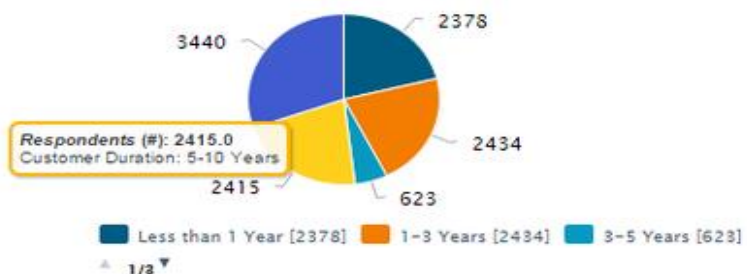
Filters

Date Range

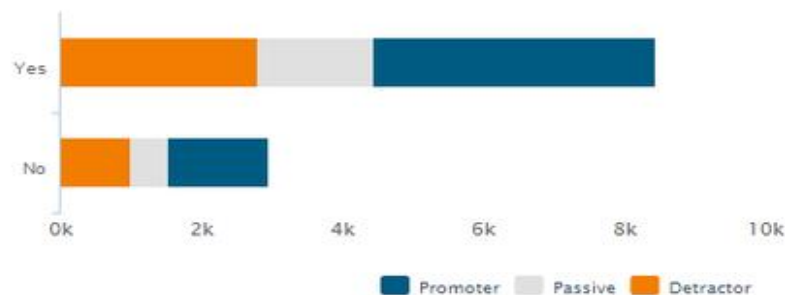
### SAT Index by City



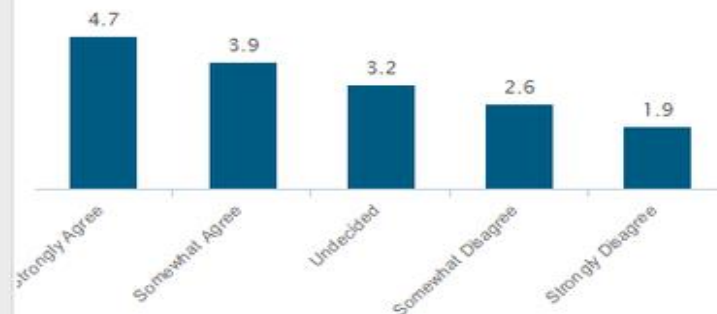
### Customer Duration



### Rewards Member:



### Satisfaction Index



### OSAT: Top 3 Box

66%

TOP 3 BOX

Goal: 60



Somewhat Disagree 19% Strongly Disagree 15%  
Somewhat Agree 27% Undecided 20%  
Strongly Agree 19%

### OSAT: Top 2 Box

46%

TOP 2 BOX

Goal: 10



Somewhat Disagree 19% Strongly Disagree 15%  
Somewhat Agree 27% Undecided 20%  
Strongly Agree 19%

### OSAT: Top Box

19%

TOP BOX

Goal: 78



Somewhat Disagree 19% Strongly Disagree 15%  
Somewhat Agree 27% Undecided 20%  
Strongly Agree 19%



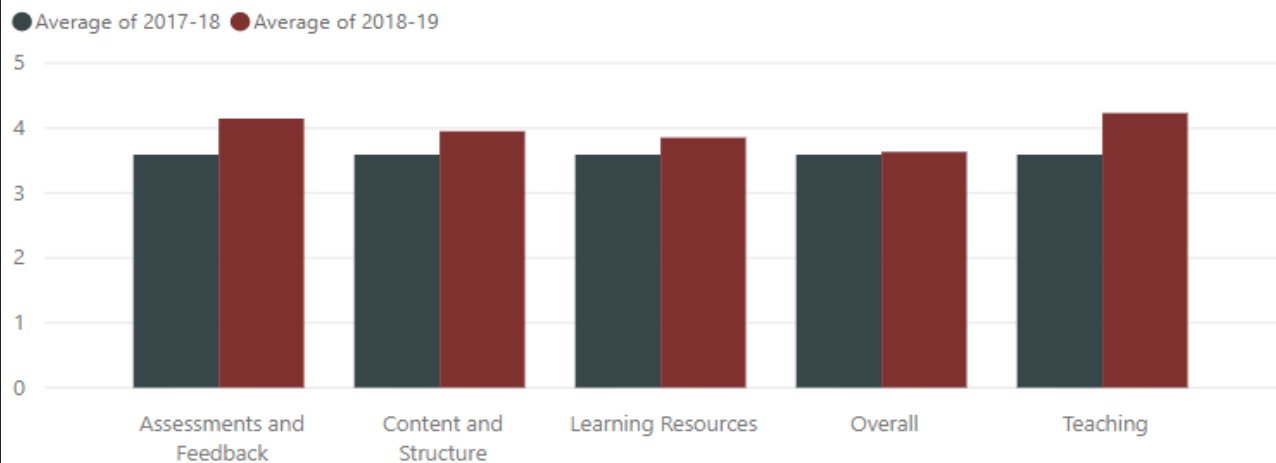
# Curriculum Metrics Dashboard

- Module Evaluation Questionnaire (MEQ) feedback – summary of average scores for each category



# Module Evaluation Questionnaire Feedback

Average of 2017-18 and Average of 2018-19 by Section



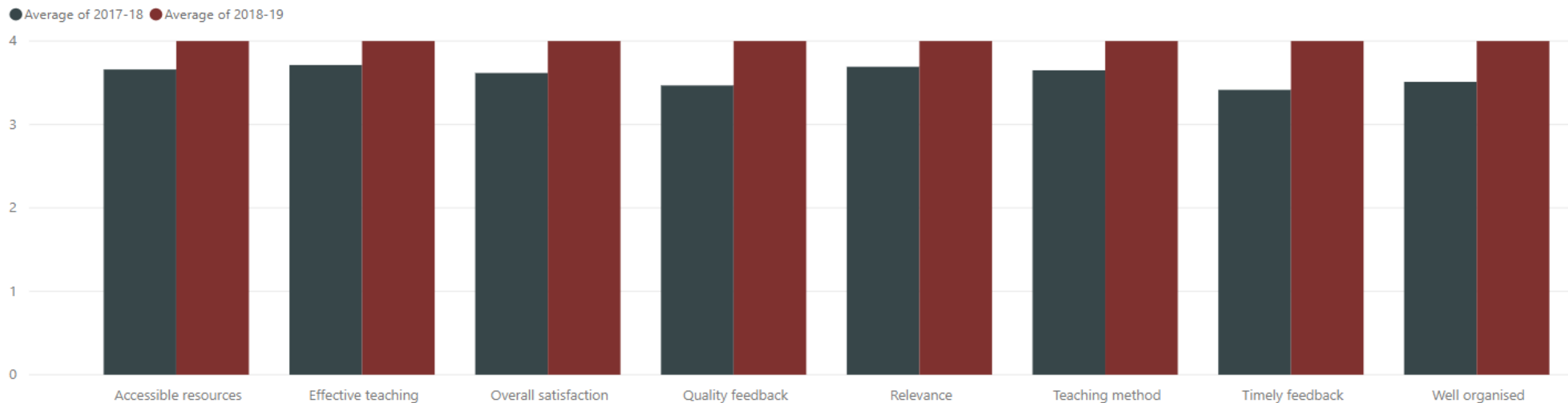
## Programme Name

- BA (Hons) Music Production
- BSc (Hons) Audio Engineering and Production
- BSc (Hons) Game and Interactive Audio

## Module Name

All

Average of 2017-18 and Average of 2018-19 by ShortQuestion



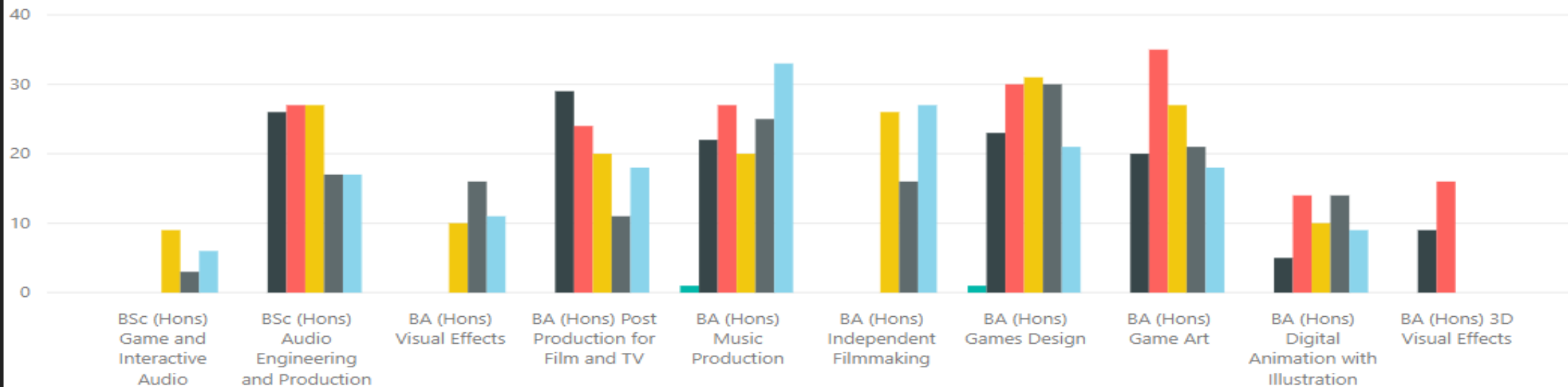
# Curriculum Metrics Dashboard

- Level 4 dashboard for: intake numbers and proportion of pass and proceed students

## Year 1 Intake by Academic Year

Count of EnrolmentID by Programme\_Name and AcademicYear

AcademicYear ● 2013/2014 ● 2014/2015 ● 2015/2016 ● 2016/2017 ● 2017/2018 ● 2018/2019



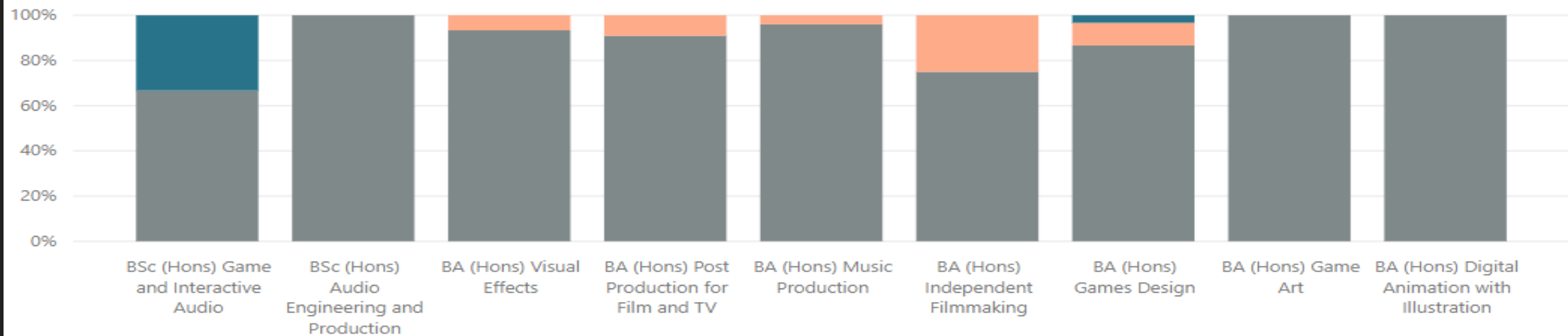
Status

- ENR
- NOSHOW
- NOTRET
- SU
- TR
- WD

## Year 1 Pass Rate

Count of EnrolmentID by Programme\_Name and ClassDescription

ClassDescription ● Proceed ● Referred to next year ● Retake modules with good cause



AcademicYear

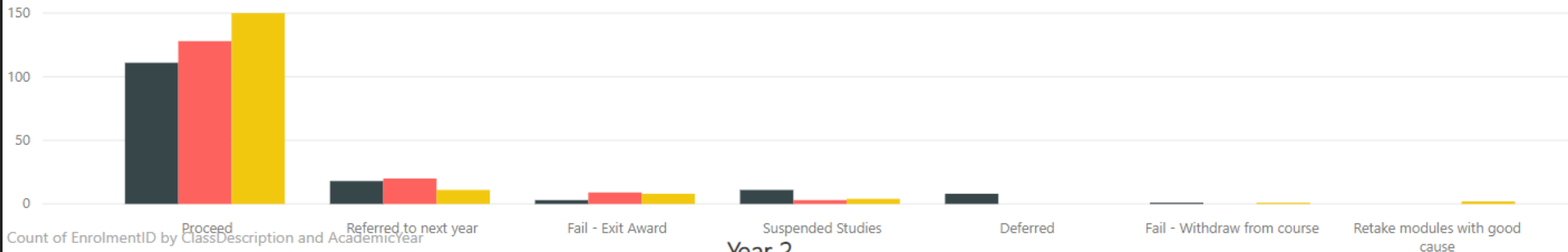
- 2013/2014
- 2014/2015
- 2015/2016
- 2016/2017
- 2017/2018

# Curriculum Metrics Dashboard

- Outcomes dashboard showing change in numbers of each outcome by academic year

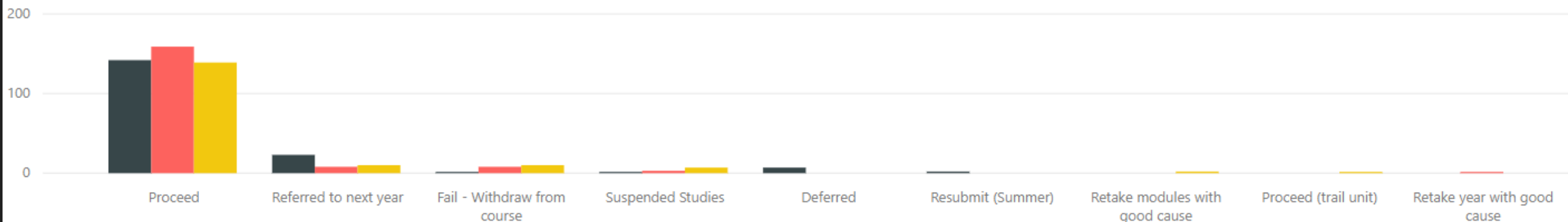
Count of EnrolmentID by ClassDescription and AcademicYear

AcademicYear ● 2015/2016 ● 2016/2017 ● 2017/2018



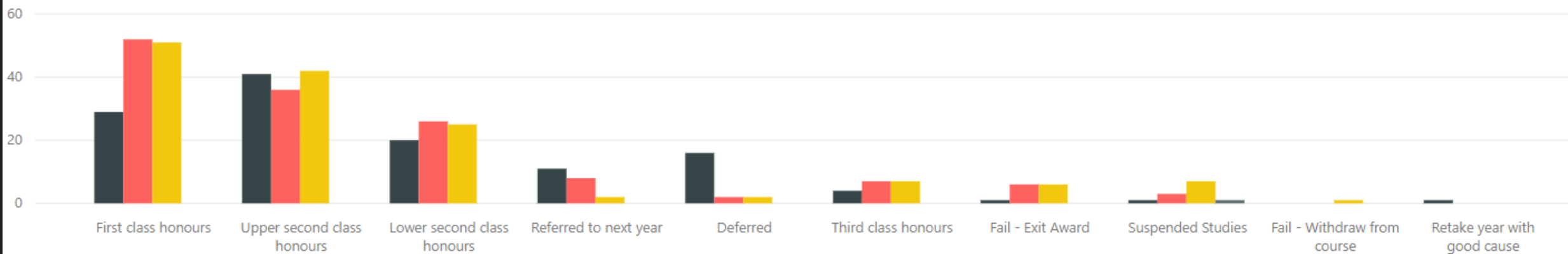
Count of EnrolmentID by ClassDescription and AcademicYear

AcademicYear ● 2015/2016 ● 2016/2017 ● 2017/2018



Count of EnrolmentID by ClassDescription and AcademicYear

AcademicYear ● 2015/2016 ● 2016/2017 ● 2017/2018 ● 2018/2019



# Curriculum Metrics Dashboard: Who has access?



- Initial deployment was aimed at Programme Leaders to support the Continuous Monitoring & Improvement (CMI) process at module and programme level.
- Second deployment will be aimed at Heads of School to support the CMI process at School level.
- Later deployments will be aimed at senior management to include institutional data, such as NSS, OfS metrics, etc.

# Curriculum Metrics Dashboard: Training

- Initial roll out to Programme Leaders through Programme Leaders Forum.
- Announcements at School Committees and Management & Planning Committee.
- Training available on one-to-one basis and/or for groups.
- Walk-in surgeries have been planned for key points in the year.
- Feedback will be gathered at training events to make changes in next release.
- Iterative development – has to work for the users, or it doesn't work.



# Poll 5:

- At your tables, please discuss the reasons you have heard to explain why people can't engage with data/data teams.
- Then, go to: **[PolleEv.com/marthahorler363](https://PolleEv.com/marthahorler363)**.
- Then, enter one of your "favourites".





## Favourite excuses for non-engagement with data



Respond at [Pollev.com/marthahorler363](https://Pollev.com/marthahorler363)



Text **MARTHAHORLER363** to **07480 781235** once to join, then text your message

“Leaders particularly are desperate for data, but not sure exactly what or in what form”

“reports are too unwieldy / too big”

“I'm not a data person”

“Don't trust its accuracy”

“Still current?”

“The data is wrong so I ignore it”

“The da

“Perceived as complex”

“Presentation of data”

“Uncertainty about what data is actually wanted”

“Data not trusted.”

“Someone else job”

“Not enough time to pay attention to it”

“Not enough resource”

“Doesn't effect me”

“It is perceived that the data is wrong, although it may be how it is presented”

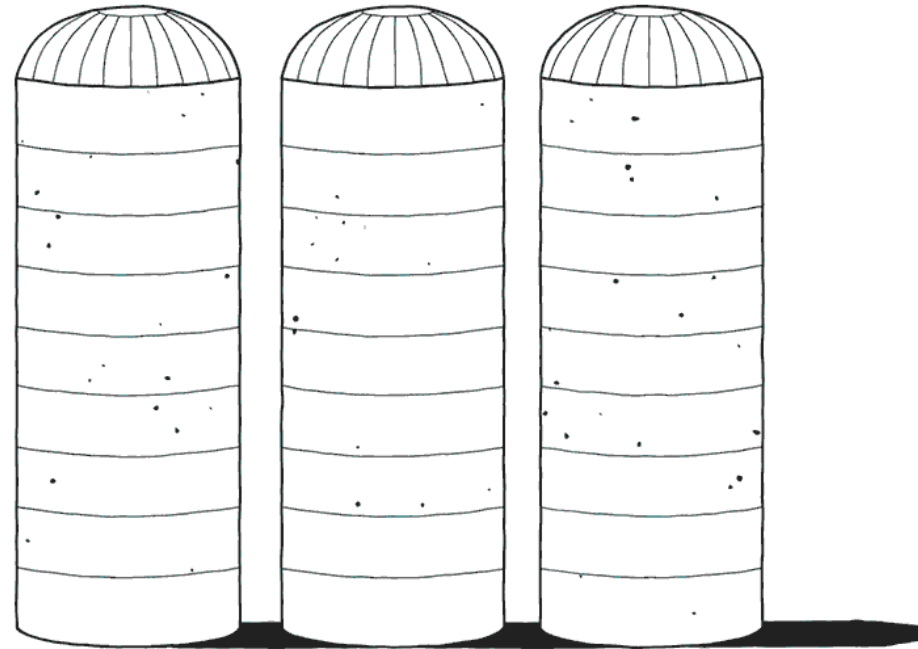
“Data inconsistencies”

“Binary perceptions and lack of awareness of the greyness of data”

“Don't know where the data is”

# Curriculum Metrics Dashboard: Measuring Success

1. Accessibility
2. Accuracy
3. Completeness
4. Consistency
5. Relevance
6. Timeliness
7. Presentation
8. Engagement



- Identify and mitigate risk.
- Establish a competitive advantage.
- Support collaborative working and improve communication.

- Innovative problem solving.
- Improve efficiency.
- Better allocate resources.