

# IMPERIAL

## Embedding and evaluating EDI

**Taking a responsive and evidence-informed approach to making a difference**

Kate Ippolito, Principal Teaching Fellow in Educational Development, EDU

[k.ippolito@imperial.ac.uk](mailto:k.ippolito@imperial.ac.uk)

# Learning Outcomes

By the end of this session you'll be better able to:

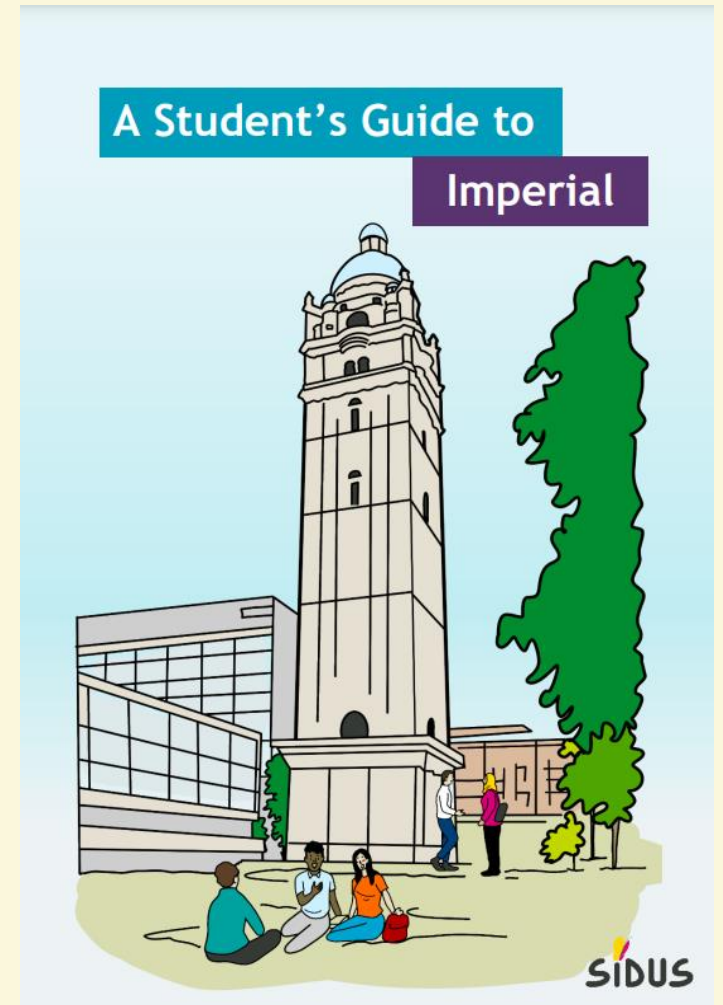
- Identify existing barriers to learning at Imperial
- Identify how we can embed more equitable and inclusive practices into the Imperial culture
- Identify what roles students and faculty play in fostering equality, diversity, and inclusion in higher and professional education
- Design data collection tools to collect quantitative and qualitative evidence of EDI initiative impact
- Plan action to take within our communities at Imperial.

# Associated pre-reading

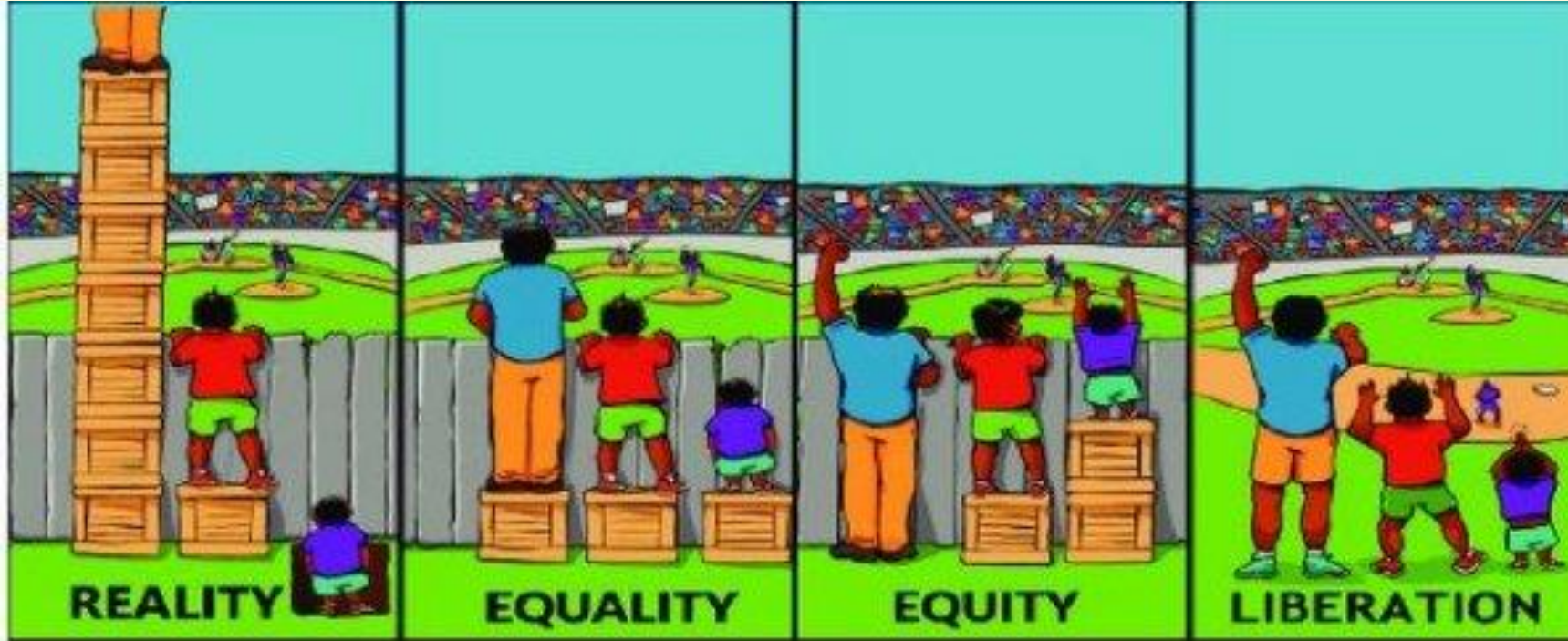


[Embedding equality, diversity and inclusion in the curriculum](#)

[A Student's Guide to Imperial](#)



# Conceptualising and contextualising EDI



In a university setting:

What does the fence represent? What do the boxes represent?

Who can take them down or add them? Any other questions this image helps you to identify?

# What do we mean by inclusive teaching and learning?

- “inclusive learning and teaching recognises all student’s entitlement to a learning experience that respects diversity, enables participation, removes barriers and anticipates and considers a variety of learning needs and preferences”  
[HEA framework for student access, retention, attainment and progression](#)

“Our students benefit in an environment where they feel included, and where they are taught in ways that recognise and support their needs as individuals, and as part of a learning community”

[Plymouth University Guide on Inclusive Learning & Teaching](#)

# Defining inclusive curricula

An inclusive curriculum:

- Is explicit about what is expected of students in terms of learning and assessment and helps them prepare for this.
- Creates opportunities for all students to engage and participate in ways that support their learning.
- Acknowledges that the curriculum has an impact on the way that people see themselves (including their identify as a learner and future professional).

# A framework for inclusive practice

## 1. Inclusive Educational Design

- Constructive alignment, Universal design, Variety of content and active approaches

## 2. Preparing students for learning

- Materials, expectations and rationale

## 3. Managing inclusive learning environments

- Room layout, visuals, learner engagement

## 4. Assessment and feedback for learning

See: <https://www.imperial.ac.uk/staff/educational-development/teaching-toolkit/inclusive-learning-and-teaching/>

# Identifying and justifying area of EDI to tackle

What are existing, EDI related barriers to learning?

Based on what you've learnt so far what would you like to tackle?

What do students bring that teaching staff can't?



Diversity dimensions	Examples
Educational	Level/type of entry qualifications; skills; ability; knowledge; educational experience; life and work experience; learning approaches.
Dispositional	Identity; self-esteem; confidence; motivation; aspirations; expectations; preferences; attitudes; assumptions; beliefs; emotional intelligence; maturity; learning styles; perspectives; interests; self-awareness; gender; sexuality.
Circumstantial	Age; disability; paid/voluntary employment; caring responsibilities; geographical location; access to IT and transport services; flexibility; time available; entitlements; financial background and means; marital status.
Cultural	Language; values; cultural capital; religion and belief; country of origin/residence; ethnicity/race; social background.

Inclusive learning and teaching in higher education. Full report available from:  
[https://www.heacademy.ac.uk/system/files/inclusivelearningandteaching\\_finalreport.pdf](https://www.heacademy.ac.uk/system/files/inclusivelearningandteaching_finalreport.pdf)

# Examples of Projects and Research at Imperial

- **Curriculum review** e.g. improving case studies through LGBTQ+ lens
- **Staff development workshops** e.g.
  - Making teaching more inclusive, Intro to Personal Tutoring
  - [Understanding Specific Learning Difficulties/Differences \(SpLDs\) – inclusive strategies for learning](#)
- **Master's in University Learning and Teaching final projects:**
  - How does LGBTQIA+ identity impact student experience in the active learning classroom
  - A phenomenographic investigation into Black British students' 'Sense of Belonging' at IC
  - The lived experience of teaching and learning of introvert PG students
  - The impact of team-based learning on the self-efficacy of neurodiverse students

# Examples of Projects and Research at Imperial

- Raising awareness of specific learning differences and neurodivergence in the Imperial community
- [Decolonization in a higher education STEMM institution – is ‘epistemic fragility’ a barrier?](#)
- [‘Belonging, Engagement, and Community’ \(BEC\)](#) and ‘Imperial Bursary Project’ – 2 x large scale, longitudinal studies (2019 - ongoing) with ~800 survey responses and 57 in-depth interviews exploring sense of belonging at Imperial.
- [Supporting the Identity Development of Underrepresented Students \(SIDUS\)](#) project – [nationally available outputs](#) to improve development of academic and professional identity, sense of belonging and wellbeing for minority students.
- [Impact of learning, teaching and assessment on mental health and wellbeing.](#)

# Making project supervision more inclusive

- Based on your experience of being a student and the pre-reading, identify what guidance you could give to staff to make project supervision in Mechanical Engineering more inclusive.
- Type or write what you are willing to submit and I will collect these. Try to include rationale for why this contributes to EDI.

# Evaluation

**What are we trying  
to measure....**

**...and how?**

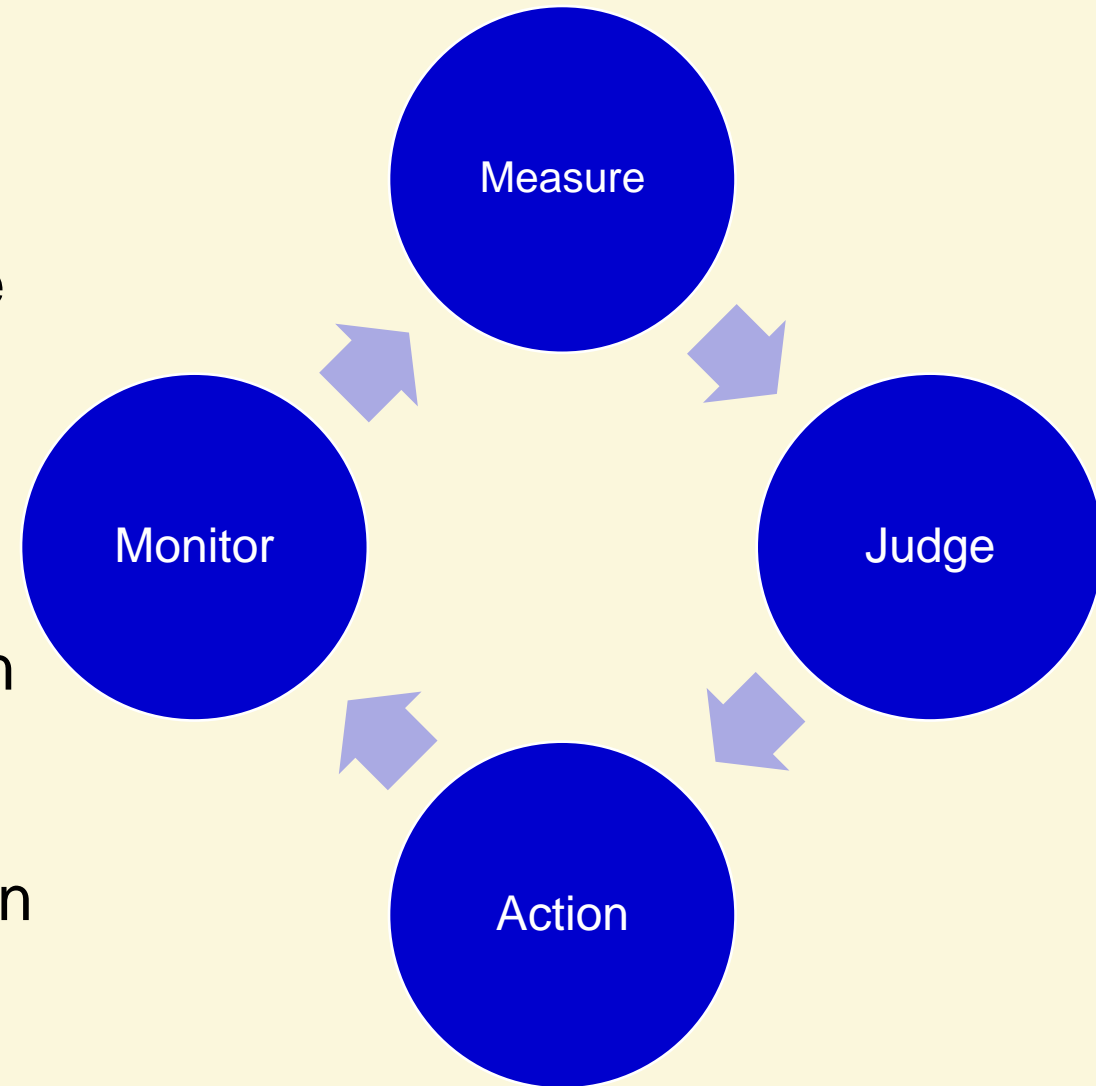
# The evaluation cycle

**Measurement** – systematic gathering of a range of data from a range of sources to measure the existing provision.

**Value judgement** – consideration of the significance and meaning of the data, resulting in a judgement.

**Action** – implement changes if needed, based on the judgements and evidence, to enhance provision or resolve problems.

**Monitoring** – observe effects, check for changes.



# Validity in social science

- Validity in **quantitative** research often concerns: objectivity, generalisability, replicability, predictability, controllability – a large controlled sample gives predictive power
- Validity in **qualitative** research often concerns: honesty, richness, authenticity, depth, scope, subjectivity, strength of feeling, catching uniqueness, holistic – a purposeful sample gives negotiated meaning

# Generalisation in social science

- Generalisation in **quantitative** research often concerns the controlled replicability of methods and data – As there is often an assumed single ‘truth’ ideas are often communicated at the level of method and data
- Generalisation in **qualitative** research often concerns empathy with data and confirmation of ideas – As there may be more than one ‘truth’, data is very contextual and it is the interpretation and generalised ideas that are communicated



# Questionnaires / surveys

**Advantages**



**Disadvantages**



# Questionnaires / surveys

## Advantages



- Speed – can gather data quickly from lots of people
- Familiar mechanism
- Anonymity – may feel can be more honest?
- Relatively easy to analyse and make comparisons
- Standardized questions may already exist

## Disadvantages



- Provides surface data, with inability to probe
- Mixed quality of feedback
- Possibly low response rate
- Question design can influence responses

# Questionnaires / surveys

## Example question types

### Sentence completion

What most supports my learning on this module is .....

What could support my learning better is.....

### Rating scale or Likert scale

How long do you spend doing a problem sheet before a tutorial?:

I don't

1 hour

2 hours

4 hours

Over 4 hours

### Bipolar questions

Supervision sessions are: Useful ..... Complete waste of time

### Open questions

e.g. Please give a reason for your answer.

What could have made supervision sessions more useful to you?

# Focus Groups

**Advantages**



**Disadvantages**



# Focus Groups

## Advantages



- Allows deeper exploration
- Can be less intimidating for participants
- Allows you to focus on interaction between participants
- Valuable if collective views of interest
- Quicker than one to one interviews

## Disadvantages



- Getting people together at the same time can be difficult
- Requires skill to manage group dynamics
- Participants may not want to reveal personal information
- Responses can be influenced (by facilitator and participants)
- Transcription and analysis can be time-consuming

# Interviews

**Advantages**



**Disadvantages**



# Interviews



## Advantages

Helpful if you wish to investigate emotions, experiences, preferences, opinions, attitudes?

Depth of data rather than breadth

Flexible, adaptable and responsive -  
Opportunity to probe, clarify etc



## Disadvantages

Not anonymous - Honesty about “negative” things – where anonymity might allow these to be revealed  
Interviewers can bias responses

Greater depth could lead to higher risk of sensitive issues emerging

Time consuming, including transcription and analysis

# Evaluation strategy:

## How would you collect data to help make project supervision more inclusive?

- Who would you ask?
- How would you ask them?
- What would you ask? Please draft 2 questions.



# Communications Strategy

- How can you make your project and data have impact?
  - Who is your audience? What are their concerns?
  - Which voices are compelling?
- To use student data for a different purpose (other than evaluation) you will need ethics approval from Imperial's EERP-  
<https://www.imperial.ac.uk/research-and-innovation/support-for-staff/education-ethics/the-eerp-process/>