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SESSION 1 – TRACK 3: ASSESSMENT AND FEEDBACK

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What’s the purpose of assessment?

Dr Dominic Henri, NTF, PFHEA

School of Natural Sciences

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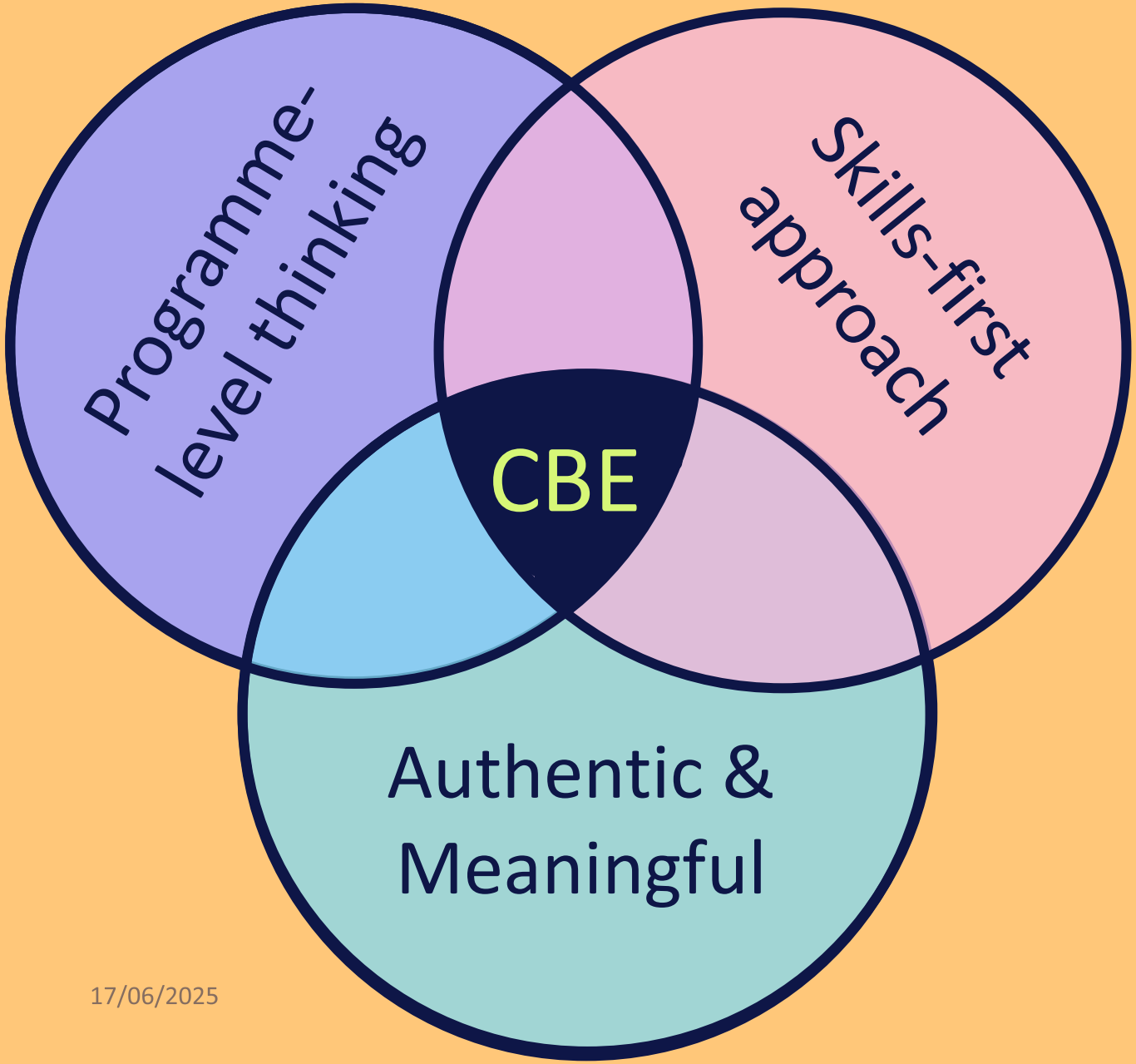
Quick primer on *competence-based* education…



The three challenges:

1) Transferring learning across contexts (modular degrees).
2) Connecting with personal and professional futures.
3) Developing and evidencing doing and being.

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Definitions	Hull Competence Framework	QAA Competence Framework	EU Competence Framework
Knowledge Domain	Knowledge Management	Knowing	Knowledge
Skills Domain	Disciplinary Experience	Acting	Skills
Awareness Domain	Self-Awareness	Being	Attributes

Active development AND assessment of…

Knowing, Doing, and Being

So, what is the ***purpose*** of assessment?

Workshop 1 'What's the purpose of assessment?'

Q-Sort board

-3 Most Unimportant	-2	-1	0 Neutral	+1	+2	+3 Most Important

Newcastle University · University of Chester · C-BASS Competence-Based Assessment · University of Hull · QAA · Cardiff University Prifysgol Caerdydd · University of Leicester · Bishop Burton College

>100 lecturers across six institutions. 30 Q-Sort groups.
Seven days of workshops, collecting data and developing practice.

University of Hull | Teaching Excellence Academy

Things lecturers agree on...

N = 30 groups, ~120 individuals

Develop students as independent learners who have ownership of the direction of their learning and future aspirations.

Providing feedback so that learners can ‘close the gap’ between where they currently are in their learning and where they are…

Develop student competence in the kinds of tasks they might need to perform within a specific discipline-aligned profession or…

Develop student transferable skills so that they can operate effectively in a broad range of industries/professions.

Provide a reliable and objective measurement of a student's ability to evidence the programme competencies.

Provide objective evidence of a student's strengths and weaknesses.

Develop enthusiasm for the subject, discipline, and or the profession.

Provide opportunities for students to have impact within their local and professional communities.

Grading students’ work so that comparisons can be made between students; e.g. a final degree classification can…

Indicate of the overall employability of a student.

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Things lecturers *dis*agree on...

N = 30 groups, ~120 individuals

Develop student capacity to become an engaged and informed citizen; e.g. Encourage students to consider…

Providing feedback to learners about their attainment against a standard or set of standards.

Provide a reliable and objective measurement of the quality of a student's work.

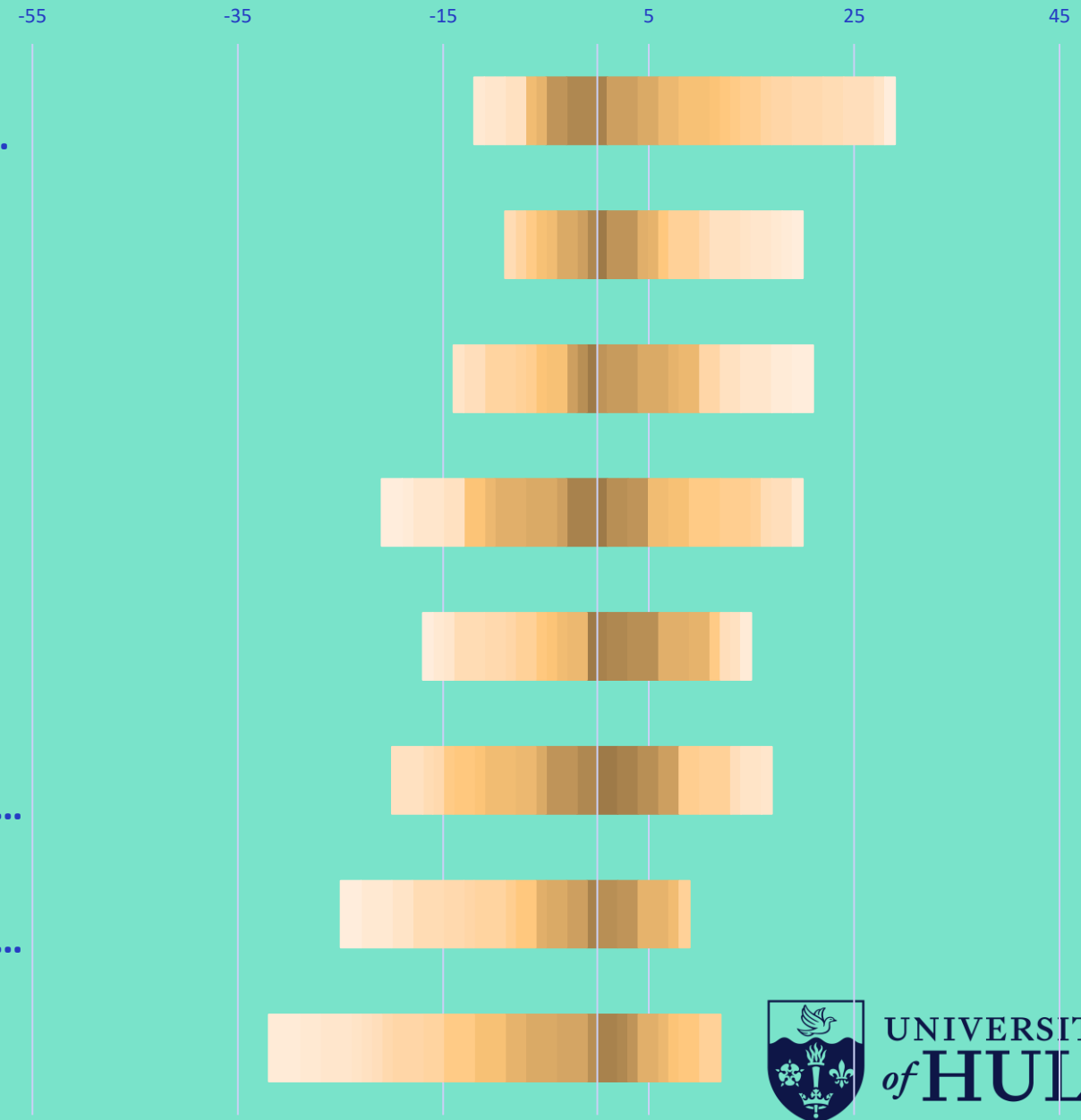
Develop student perseverance, confidence, and other positive psychological attributes.

Measure of student's readiness to progress to the next stage of their career/education.

Evidence that someone has developed "graduate attributes" - the largely intangible qualities potentially…

Developing student capacity to pass the course; E.g. directing student engagement with the course materials…

Proof or certification that a learner has demonstrated competence to work in a specific discipline and/or…



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Complex problems raised during discussions...

Feasibility - To what extent can assessment achieve the broader aims of HE; e.g. informed citizenship, ethical values, and attitudes?

Responsibility - Do staff have the skills to build the full extent of student competencies, and should it be their responsibility?

Identity - What does it mean to be a graduate of degree 'X'; e.g. what is a scientist?

Utility - What is the difference between a degree and a training course.

Next question, what is **effective** assessment?

What **adjectives** would you use to define what an effective assessment strategy should be?

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How would you define effective assessment?

N=115

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Concepts mirrored in the NSS

CLEAR

FAIR

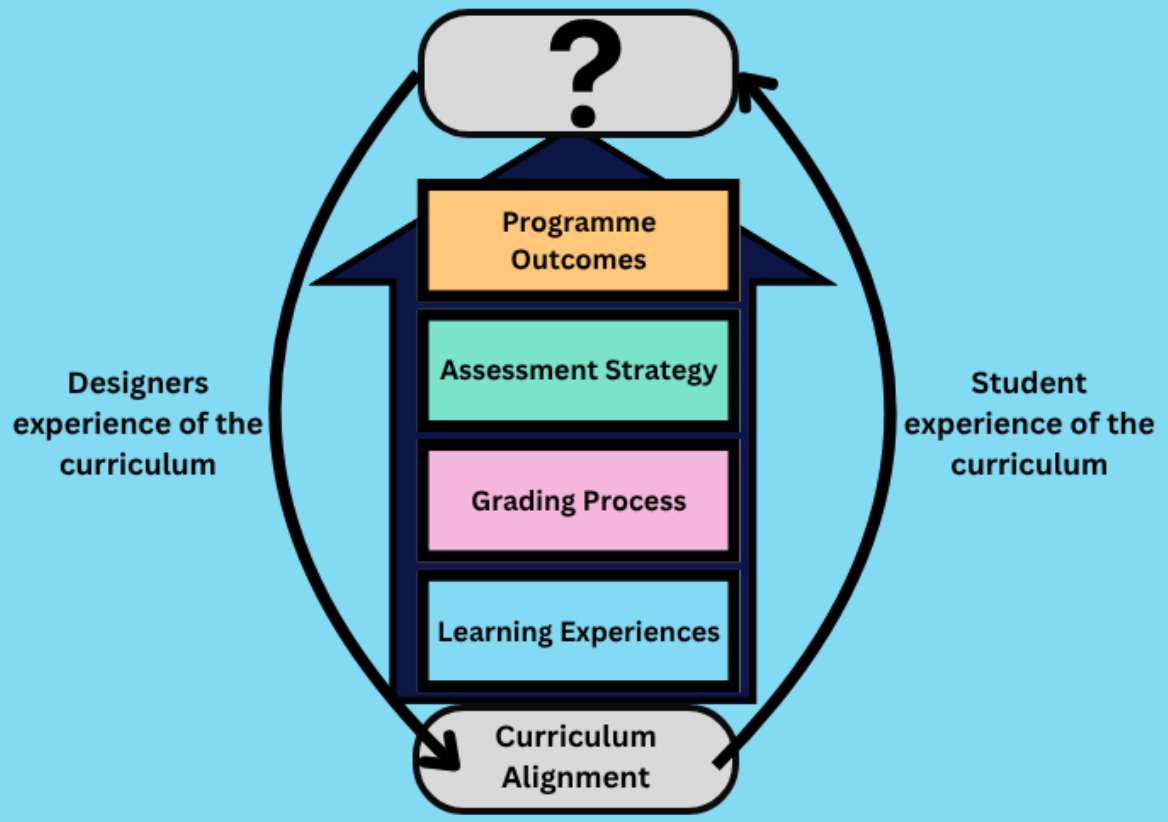
FEEDBACK (HELPFUL)

DEVELOPS SKILLS FOR FUTURE

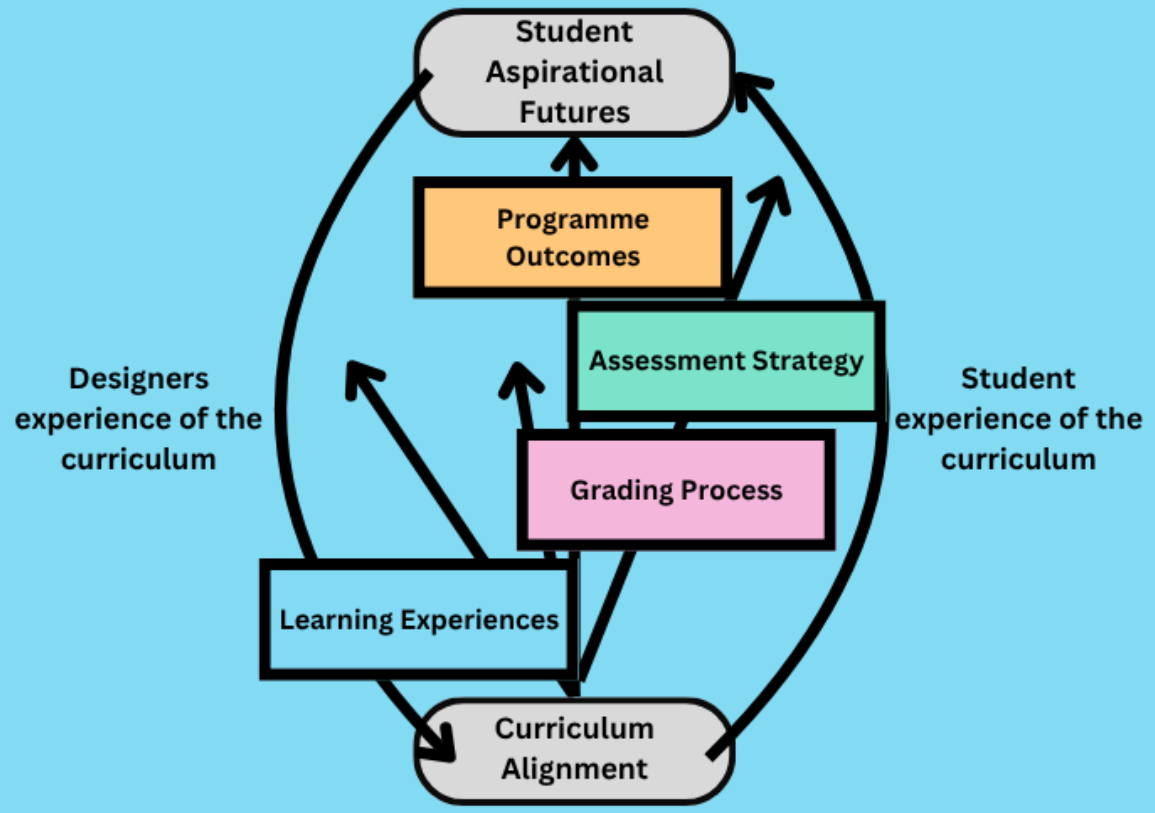
Many modern curricula struggle to address '**constructive dis-alignment**'.

Where the programme's educational tools (e.g. teaching and assessment) are not optimized towards the enhancement and realisation of students' aspirational futures!

Constructive Disalignment



Constructivist Misalignment



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C-BAss framework **flips** traditional curriculum design

Where the assessment strategy and module assessments are designed to facilitate student achievement of the final year programme competences, **before** teaching strategy or content.

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C - BAss
Competence-Based Assessment

University of Hull | QAA

Programme Outcomes are...

- **M**EANINGFUL
- **A**SSESSABLE
- **R**ELEVANT
- **Val**UABLE

PART 1 PROGRAMME GOALS

Effective assessment is...

- **M** Meaningful
- **I** Integrated
- **S** Scaffolded
- **Ch** Challenging
- **I** Inclusive
- **E** Engaging
- **F** Feasible & Fair

PART 2 - ASSESSMENT STRATEGY

PART 5 ITERATIVE & SCHOLARLY REFLECTION ON PROGRESS

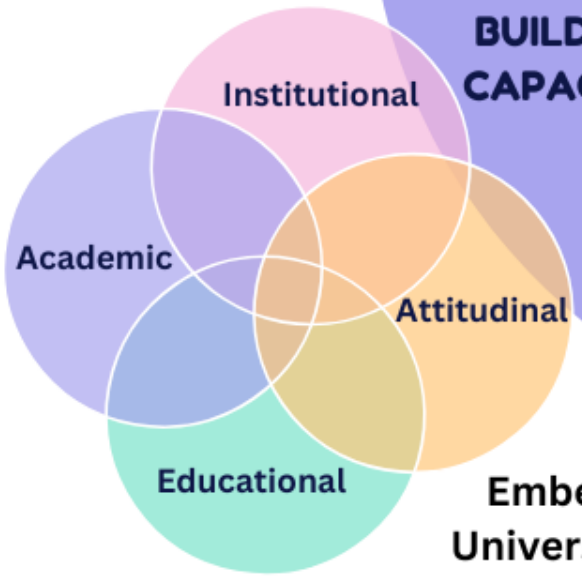
PART 3 - ASSESSING COMPETENCE

A Briefings explain assignment expectations and value, and encourage student autonomy (not dissuade it)

B Marking criteria that quantify competence, and a grading process that is appropriately explicit, reliable and efficient

C Feedback guides student development, and encourages action.

PART 4 - BUILDING CAPACITY



Embedding the 4 University Literacies

University of Hull

The 5 Components of C-BASS

Competence-Based Assessment

1) The purpose of assessment is to develop and evidence the programme outcomes.
2) Assessment defines the curriculum, so if we want students to develop something it must be assessed.

Part 1 Programme Outcomes

The whole curriculum (including assessment) is constructively aligned to outcomes that are Meaningful, Assessable, Relevant, and Valuable.
Action: Programme teams work collaboratively, with stakeholders, to develop a set of programme competencies that enhance student futures

Part 2 Assessment Strategy

Programme assessment must be: Meaningful, Integrated, Scaffolded, Challenging, Inclusive, Engaging, and Fair/Feasible.
Action: Programme teams work collaboratively to agree a programmatic assessment strategy designed to develop and evidence competencies.

Part 3 Assessing Competence

Assignment instructions set a contract about what students must, and therefore 'will', do. These must make explicit what contributes to the grade.
Action: Programme teams design an assessment briefing, marking criteria, and feedback processes that support learner autonomy and growth.

Part 4 Building Student Capacity

Programmes must take an active role in developing the broader university literacies students require to succeed.
Action: Programme teams complete the self-audit process to embed student capacity building and address the Hidden Curriculum.

Part 5 Iterative & Scholarly Reflection on Progress

Effective education comes from the continual evaluation of progress towards the programme outcomes. This applies equally to educators and students!
Action: Regular evidence-based reflection should be built into course assessment and curriculum review processes. Successes should be articulated to all stakeholders; i.e. students, employers and educational practitioners through scholarship.

Assessment must be **designed** to be **purposeful**!

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Thanks and contact details

- C-BAss Team – Andrew Holmes and Kate Bridgeman
- Massive thank you to our project partners: Chris Scott (Bishop Burton), Nigel Francis (Cardiff), Ruth Healey / Jackie Potter (Chester), Sarah Gretton / Alison Snape (Leicester), and Pip Moore / Sara Marsham (Newcastle).
- QAA for funding and help with project management.
- Contact us at - cbass@hull.ac.uk.

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PILOTING SHARP

An Iterative Framework in Co-Creating Assessment in the Age of GenAI

A Transforming Assessment for Student at King's (TASK)
College Teaching Funded Project 24/25
KCL ethics ref no: LRS/DP-24/25-46257

By Dr Zeenat Soobedar de Villeneuve
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OUTLINE

- The Problem
- The Gap
- A Solution: The SHARP Assessment cycle
- What is SHARP?
- Pilot
- SHARP in Action
- Next Phase...

THE PROBLEM

A disconnect in assessment practice

01 Current summative assessments rarely act on student feedback in real-time.

02 Changes often benefit future cohorts, not the students providing feedback.

03 Feedback focuses on marks rather than the assessment experience.

04 Opportunities to improve fairness and transparency are often missed.

THE GAP

Feedback is retrospective

01 Real-time, cohort-specific feedback is lacking.

02 Feedback literacy emphasises students' active engagement (Carless & Boud, 2018).

03 Other sectors show the benefits of real-time feedback (Cappelli & Tavis, 2016).

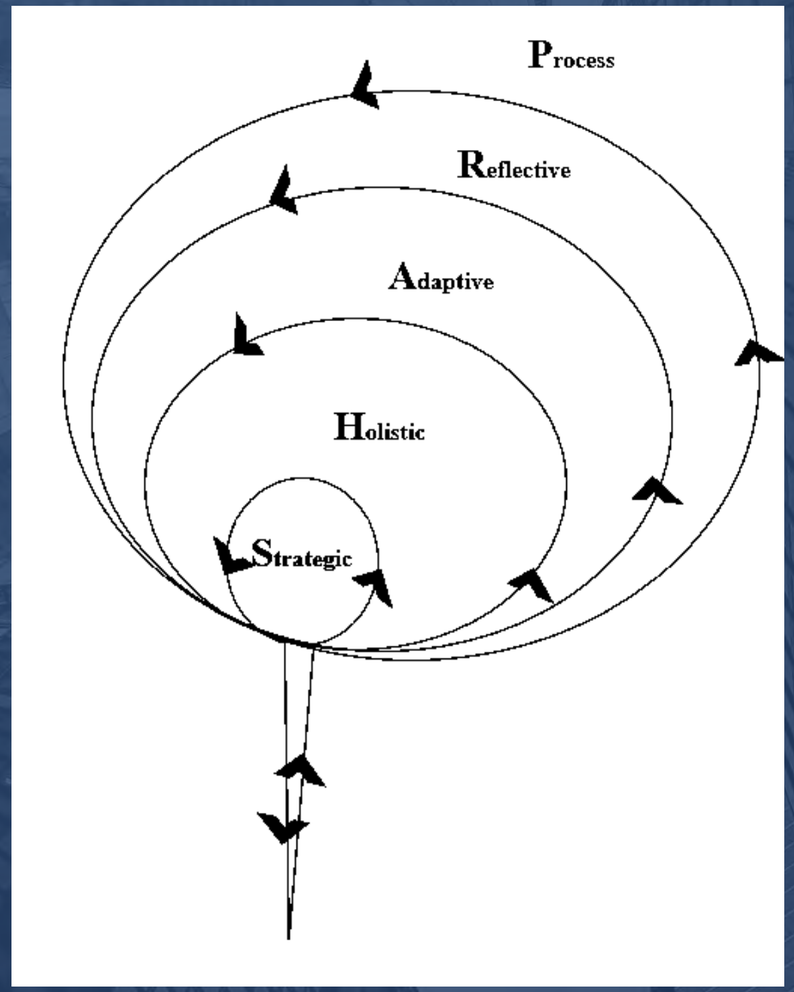
04 Education needs similar responsive models.

A SOLUTION

The SHARP Assessment Cycle

1. Embeds student voice at every stage of assessment.
2. Allows real-time adjustments based on student feedback.
3. Students co-create assessments rather than passively receive them.
4. Piloted in the Maths for Social Sciences (M4SS) and Economics modules at King’s Foundation, King’s College London.

WHAT IS SHARP?



S **Strategic**: Design using prior student feedback and align with new developments (e.g., AI).

H **Holistic**: Ensure alignment with diverse needs, overall outcomes, and workload.

A **Adaptive**: Use real-time feedback to clarify and adjust assessments in progress.

R **Reflective**: Collect feedback on process and effectiveness for future use.

P **Process**: Embed ongoing dialogue and iterative practice across cohorts.

PILOTING SHARP

Sample:
Trialled in 3 M4SS in-class tests, M4SS group presentation and Economics group report & individual analysis (results not available yet)

Methodology:

- Hold discussion with module leader
- Gather student input pre and post assessment iteratively

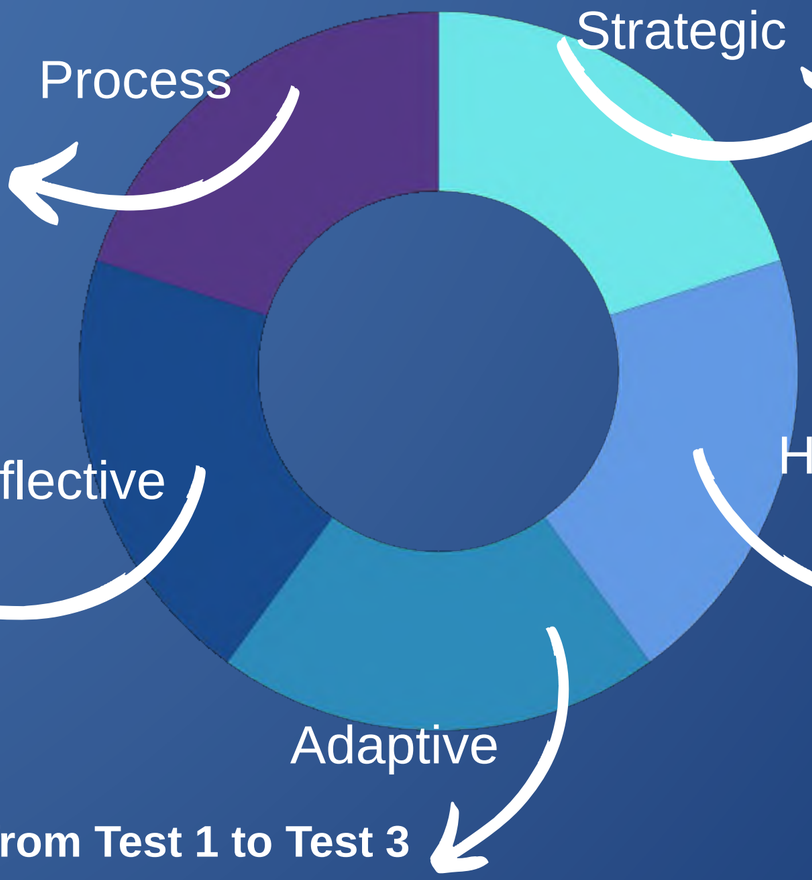
(we focus on pre-results release data due to consistent student views and to avoid negtaive bias following grade release)

- Analyse quantitative and qualitative data - thematic analysis used for open-ended questions
- Share action points for next assessment with students

SHARP IN ACTION

Throughout

- Three in-class tests trialed the full cycle
- Ongoing dialogue between staff and students drive continuous improvements
- Students active contributors in shaping assessments in real time



Planning before Test 1

- Designed with clear alignment to learning outcomes (AI consideration here when test was online)
- Informed by past student feedback
- Tackled the move from online to in-class tests: logistics, space, delivery format

After Each Test

- Student reflections on their learning, performance and test prep strategies
- Staff reflections on assessment quality, inclusivity, and student experience
- In-class stress raised reflection of need for alternative formats

Across Tests 1–3

- Considered overall student experience: clarity, workload, fairness
- Staff reflecting on redundancy and alignment with learning outcomes

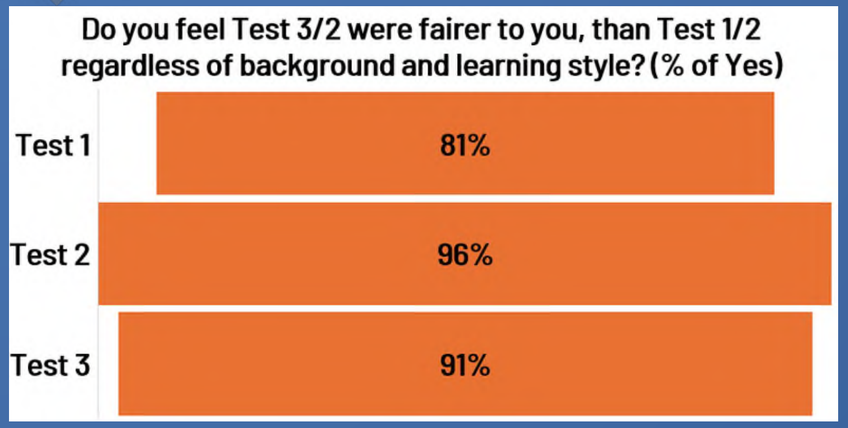
Real-time changes from Test 1 to Test 3

- Real-time tweaks (e.g. more spacing in Test 2; simplified contexts in Test 3)
- Academic standard maintained while enhancing clarity and engagement
- Close feedback loop so students see their voice matter

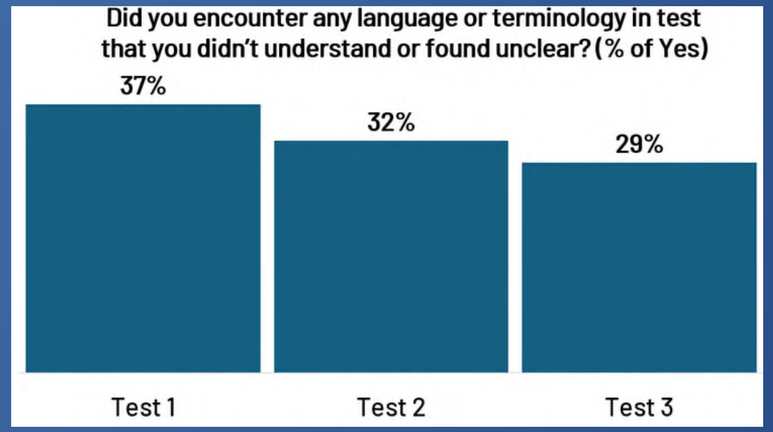
MAIN THEMES

Obs	Test 1	Test 2	Test 3
Sample	64	64	64
Say (%)	40 (62.5%)	28 (43.8%)	38 (59.4%)

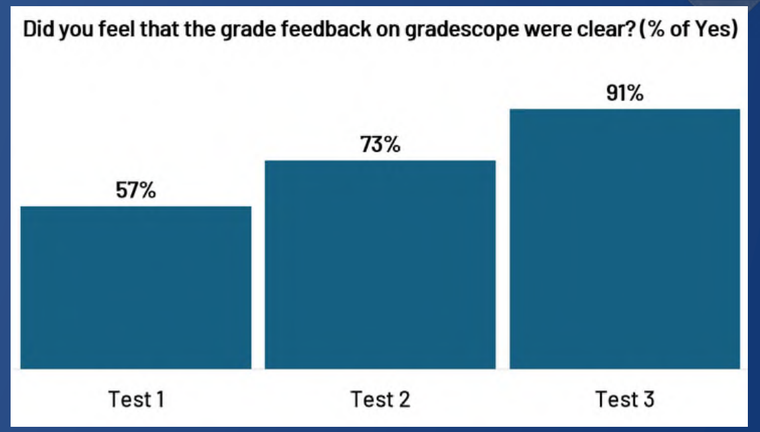
FAIRNESS



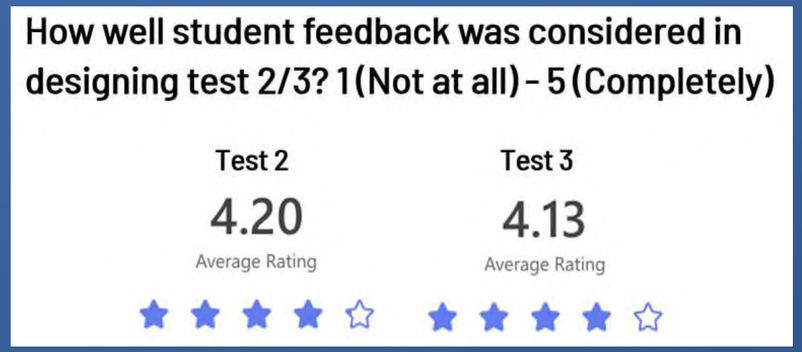
INCLUSIVITY

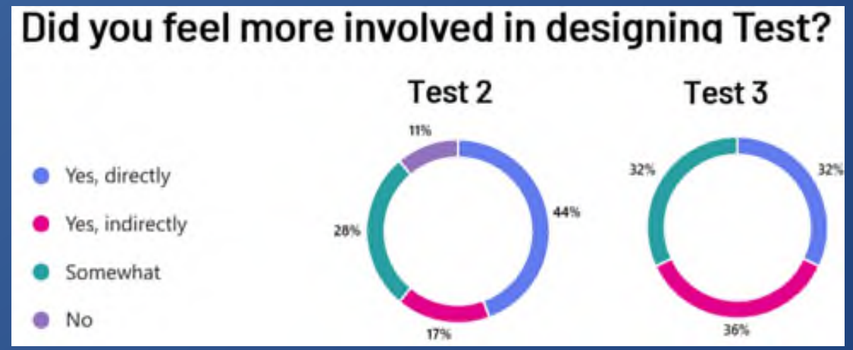


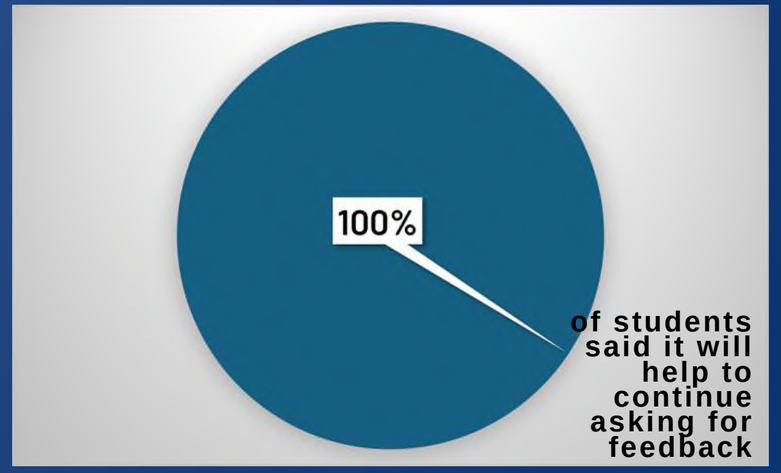
TRANSPARENCY



STUDENT VOICE







SOME STUDENT RESPONSES

Do you think we should keep asking for similar feedback to future M4SS students? Explain why or why not.

Yes, so you can know what works best for students.

Yes, to improve every year

Yes, it seems very helpful, I didn't fill out the previous survey

Yes. I think this series of surveys has somewhat increased my sense of engagement as a student.

It's nice to feel listened to even if it's a placebo

On a scale of 1 to 5, how well do you think student feedback from test 1 (2) was considered in designing test 2 (3)? 1 (Not at all) - 5 (Completely)

I gave great feedback for test 2, which made test 3 similar to the second

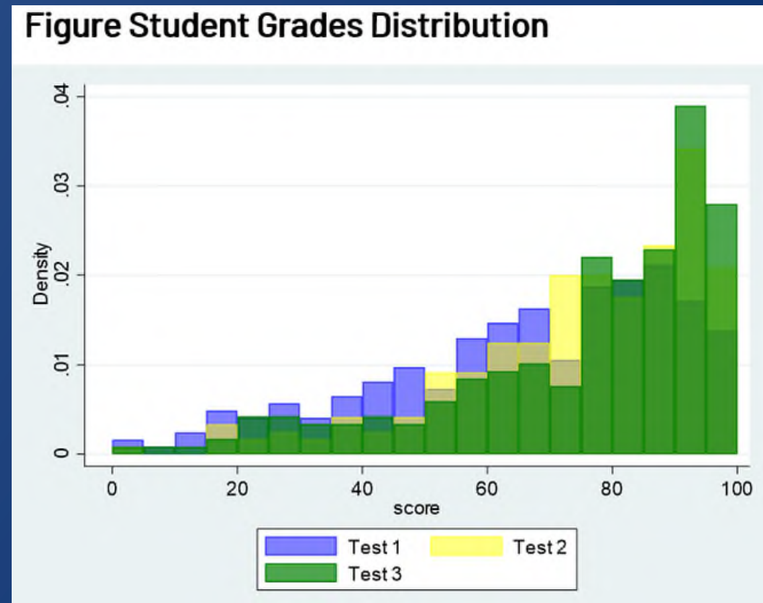
Test 3's question types were not so different from test 2 and most of my classmates were satisfied with test 2's format.

It was all clear
At least for me
The bold text was great

Open-ended answers

I heard many students say that what they suggest was taken into consideration.

It was well constructed like test 2



NEXT PHASE...

SHARP TOOLKIT?

1. To embed into teaching practice
2. SHARP module assessment plan being created digitally

SCALABILITY?

1. Looking to pilot in an undergraduate/postgraduate module
2. Fits different assessment types?
3. Cross-disciplinary application?
4. Reusable structure?
5. Supports different cohort sizes?

THANK YOU

Questions or reflections welcome!

DR ZEENAT SOOBEDAR DE VILLENEUVE

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Scan to express your interest in knowing more about SHARP

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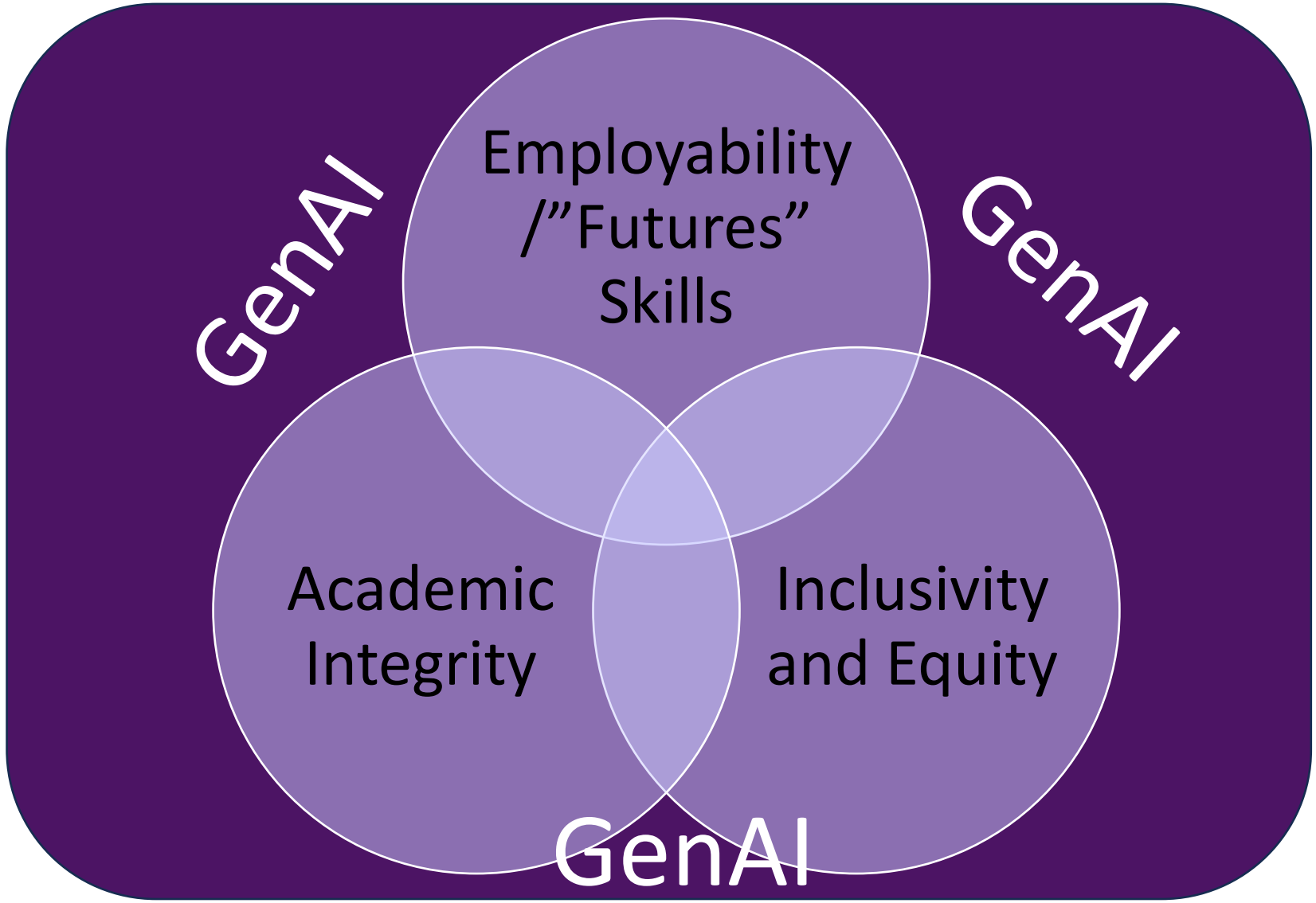
Rethinking Assessments in a GenAI-enabled world

Parama Chaudhury and Ramin Nassehi
University College London

June 2025

(co-authored with Antonio Mele, Carlos Cortinhas, Cloda Jenkins, Denise Hawkes, Silvia Dalbianco and Stefanie Paredes Fuentes)

Context


GenAI
Employability /"Futures" Skills
GenAI
Academic Integrity
Inclusivity and Equity
GenAI

What is happening in the workplace?

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Centre for Teaching and Learning Economics

Survey: How are professional economists using AI at work?

What is happening in the workplace?

CTaLE
Centre for Teaching and Learning Economics

Survey: How are professional economists using AI at work?

114 Respondents

with economics degrees
who are now working

What is happening in the workplace?

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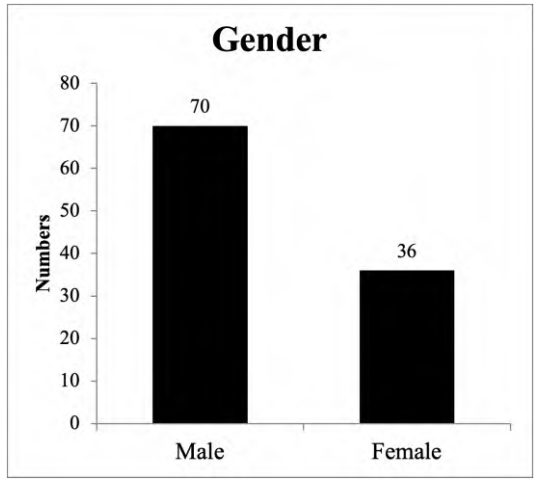

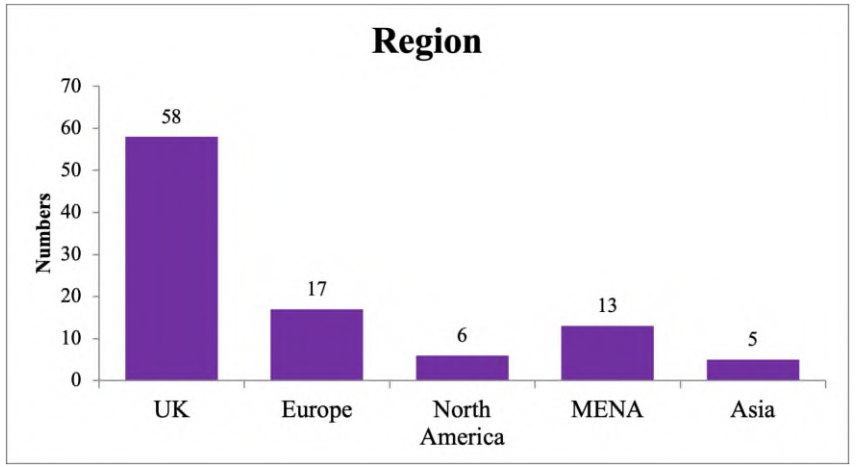

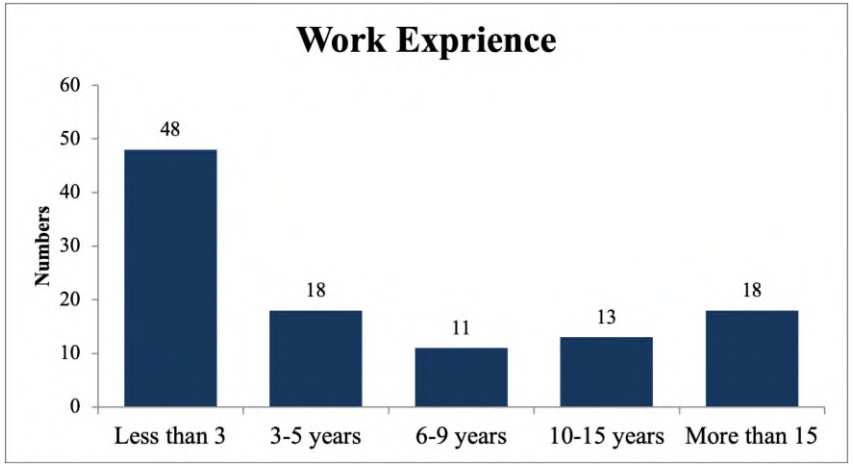

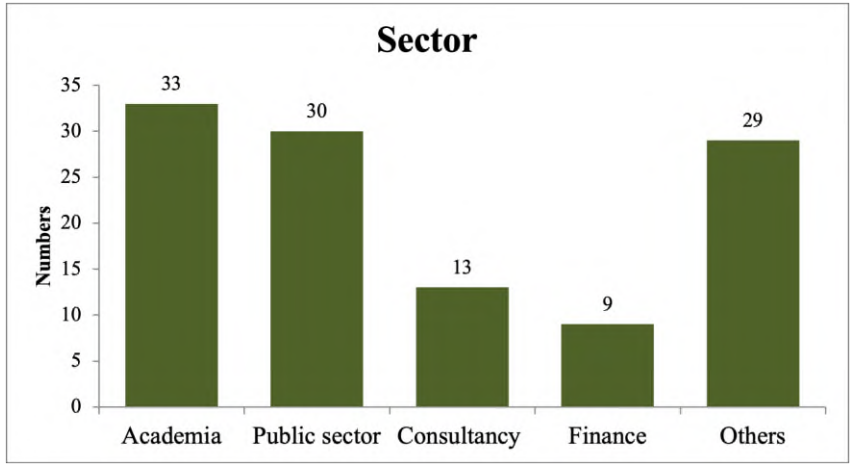

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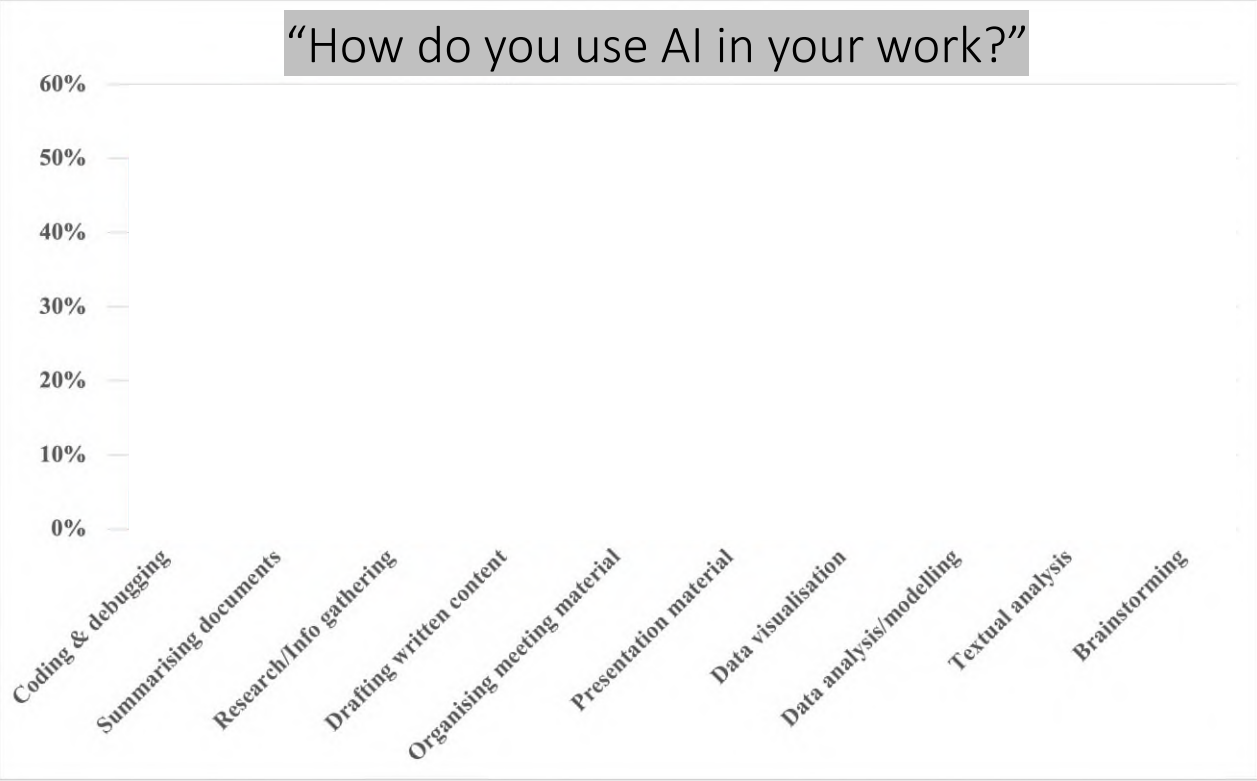
"How do you use AI in your work?"

What is happening in the workplace?



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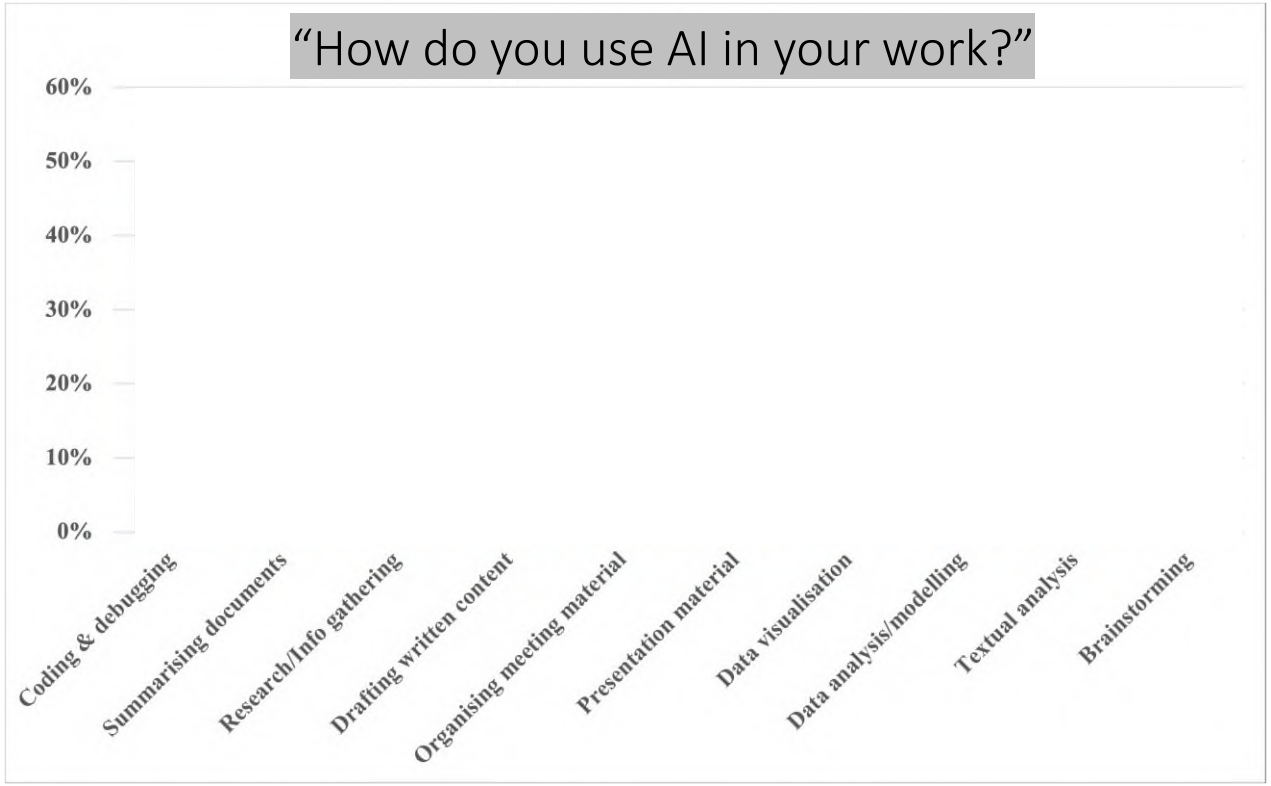
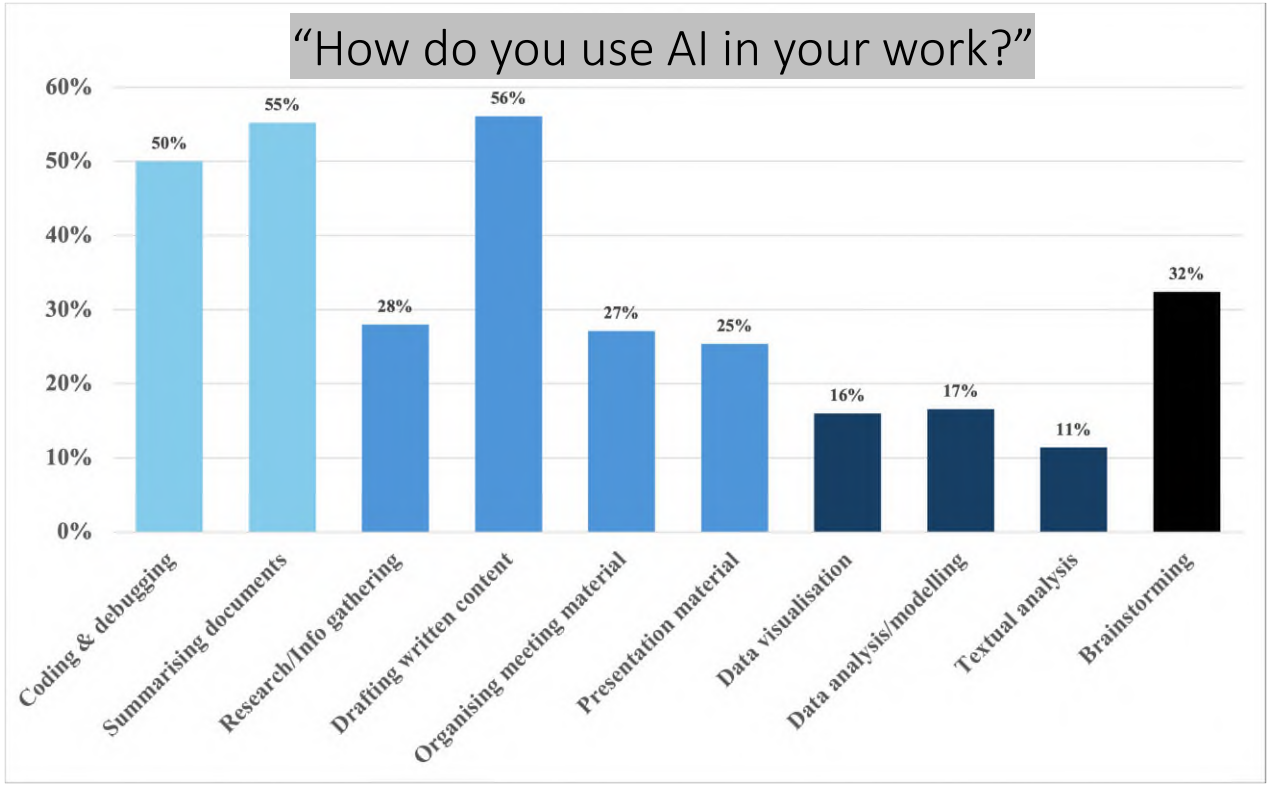


Analytically narrow (Well defined) ⟷ Analytically broad (Open ended)

What is happening in the workplace?



Analytically narrow (Well defined) ⟷ Analytically broad (Open ended)

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"What is the most important use of AI for you at work?"

What is happening in the workplace?

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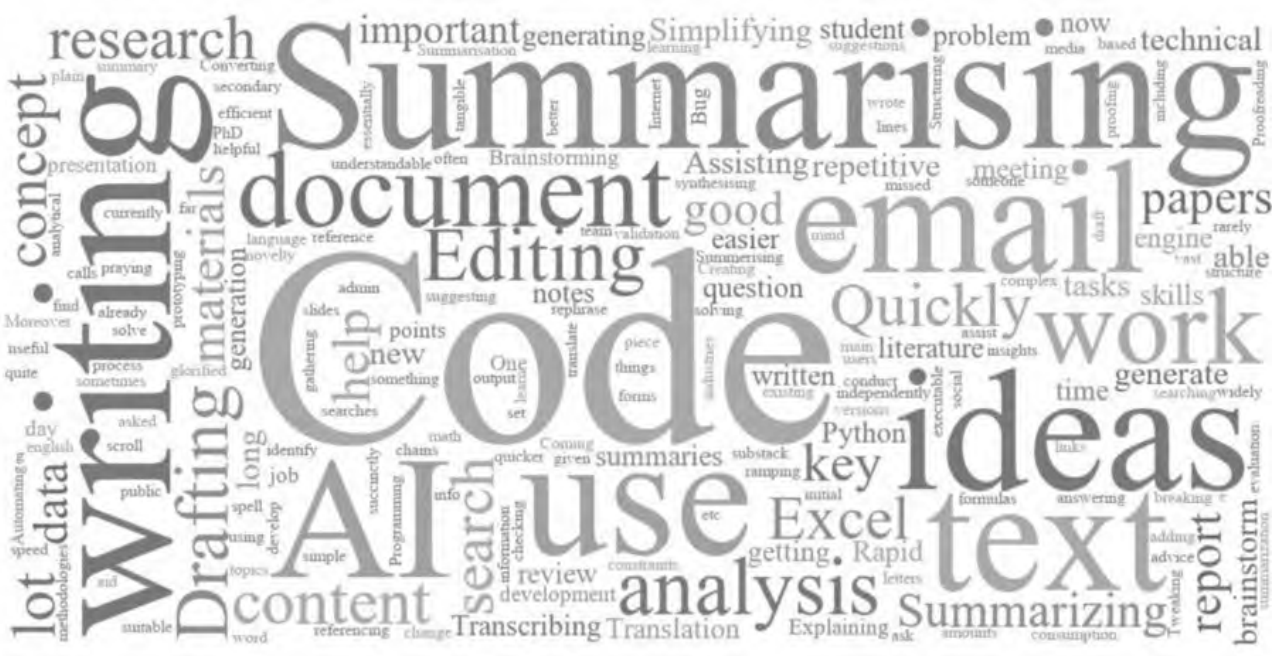
"What is the most important use of AI for you at work?"



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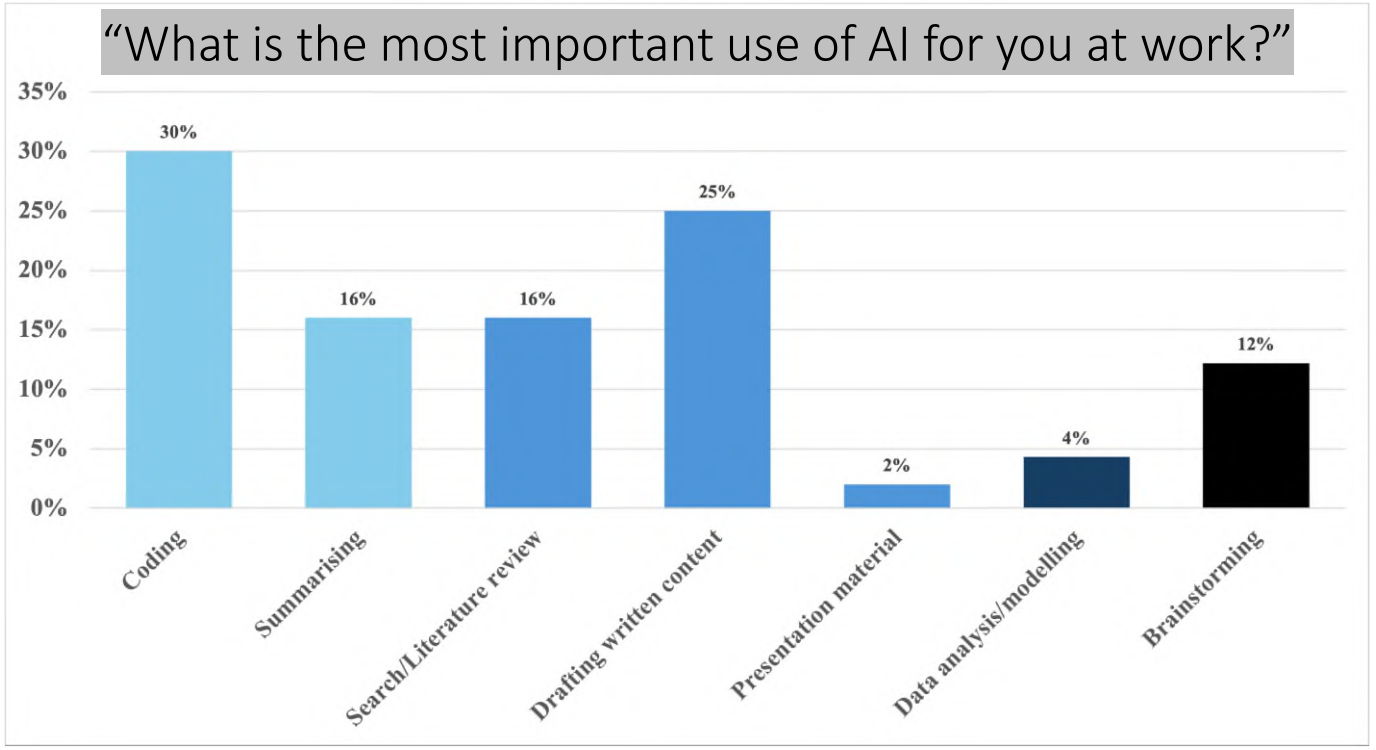

Analytically narrow (Well defined) ⟷ Analytically broad (Open ended)

What is happening in the workplace?

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Takeaway 1: Economists are using AI in wide variety of tasks

As a Tool

As a Research assistant/
Executive assistant/
Comms manager

As a Co-problem
Solver

What is happening in the workplace?

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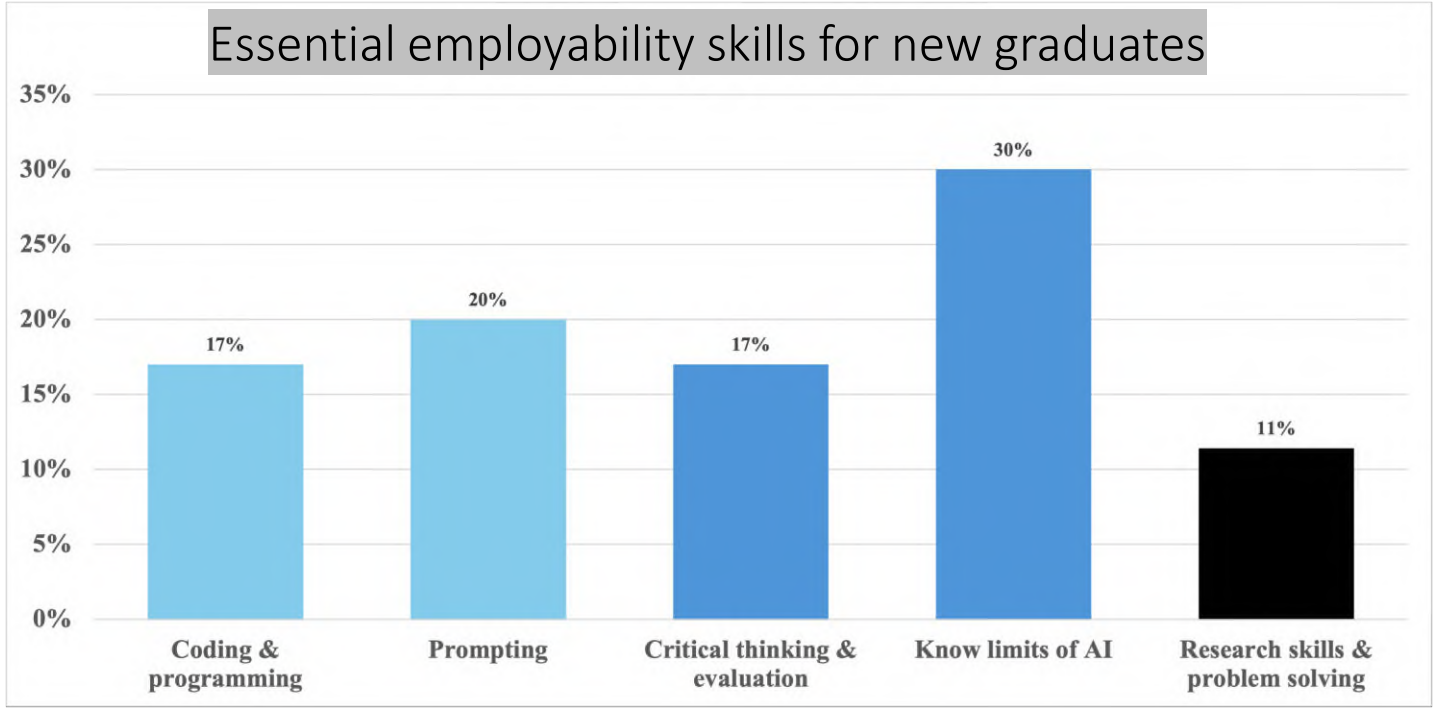
Essential employability skills for new graduates

What is happening in the workplace?



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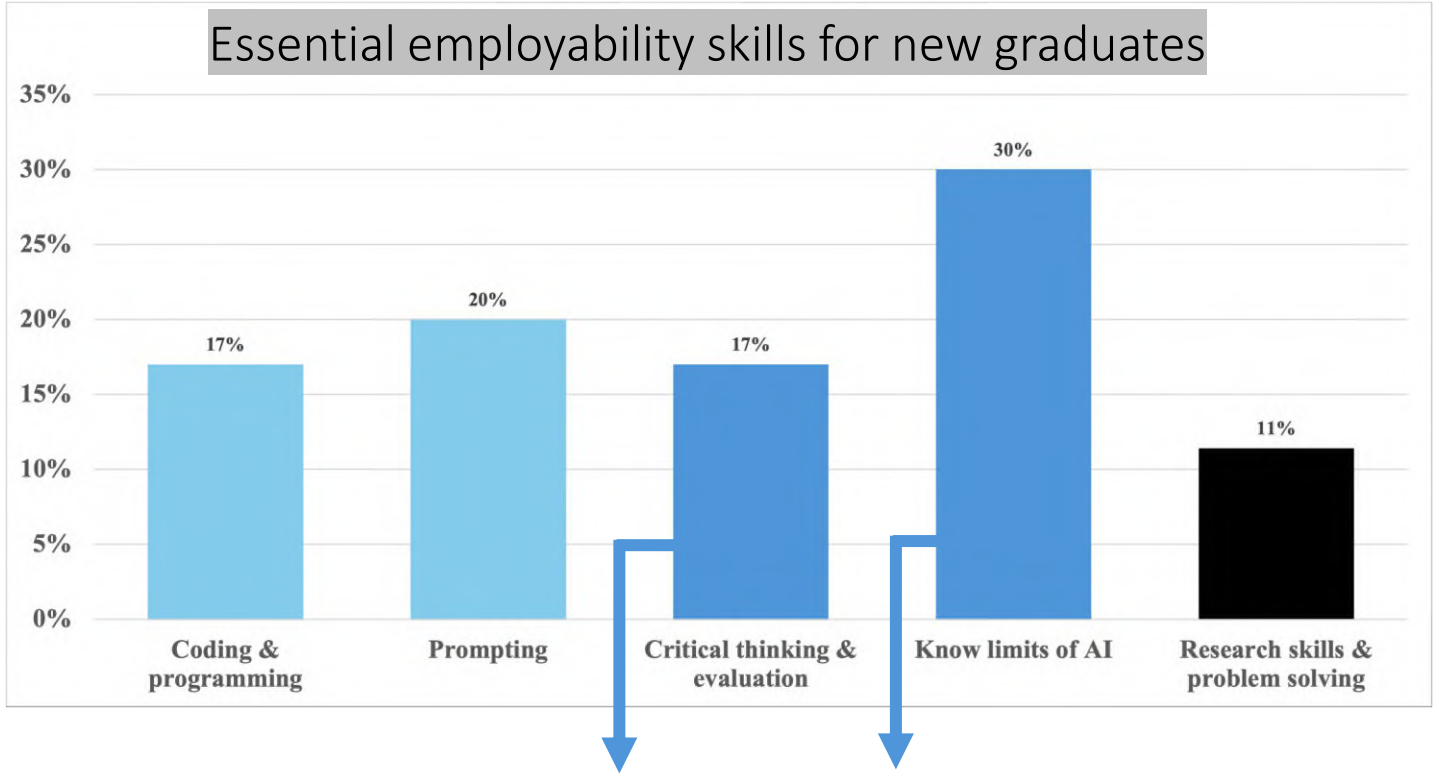
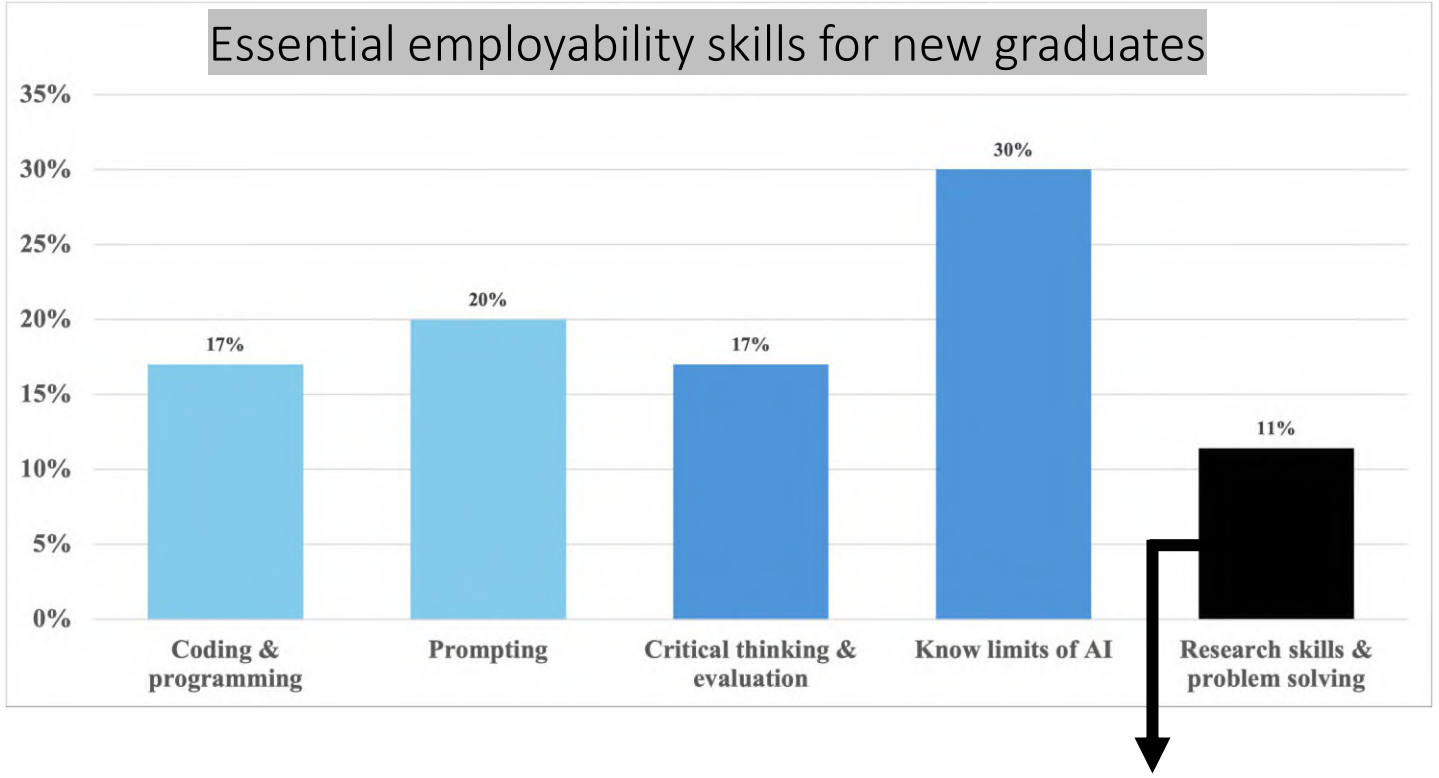
What is happening in the workplace?



"Know how to use AI as an assistant tool, without excessively relying on that (still be able to double check, have a critical attitude on the outcome proposed)"

What is happening in the workplace?



"Ability to figure out how to solve problems themselves. Especially related to data and modelling".

What is happening in the workplace?

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Takeaway 2: One Skill to Teach if AI Can Do Everything Else

- The key skill is problem formulation and critical thinking—students must learn to ask the right questions, judge AI responses, and maintain intellectual integrity.
- Collaboration, communication, and ethical responsibility will remain core human strengths.

What is happening in universities?

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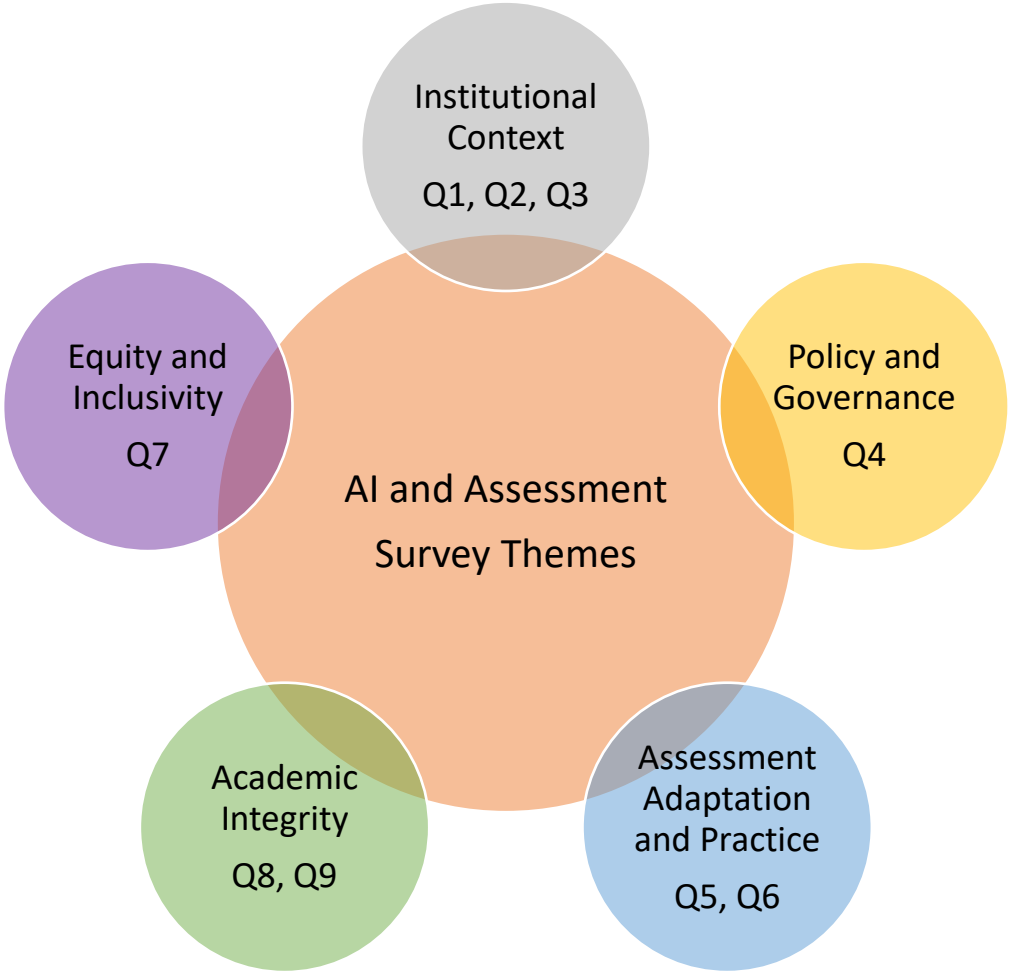
Survey themes



What is happening in universities?

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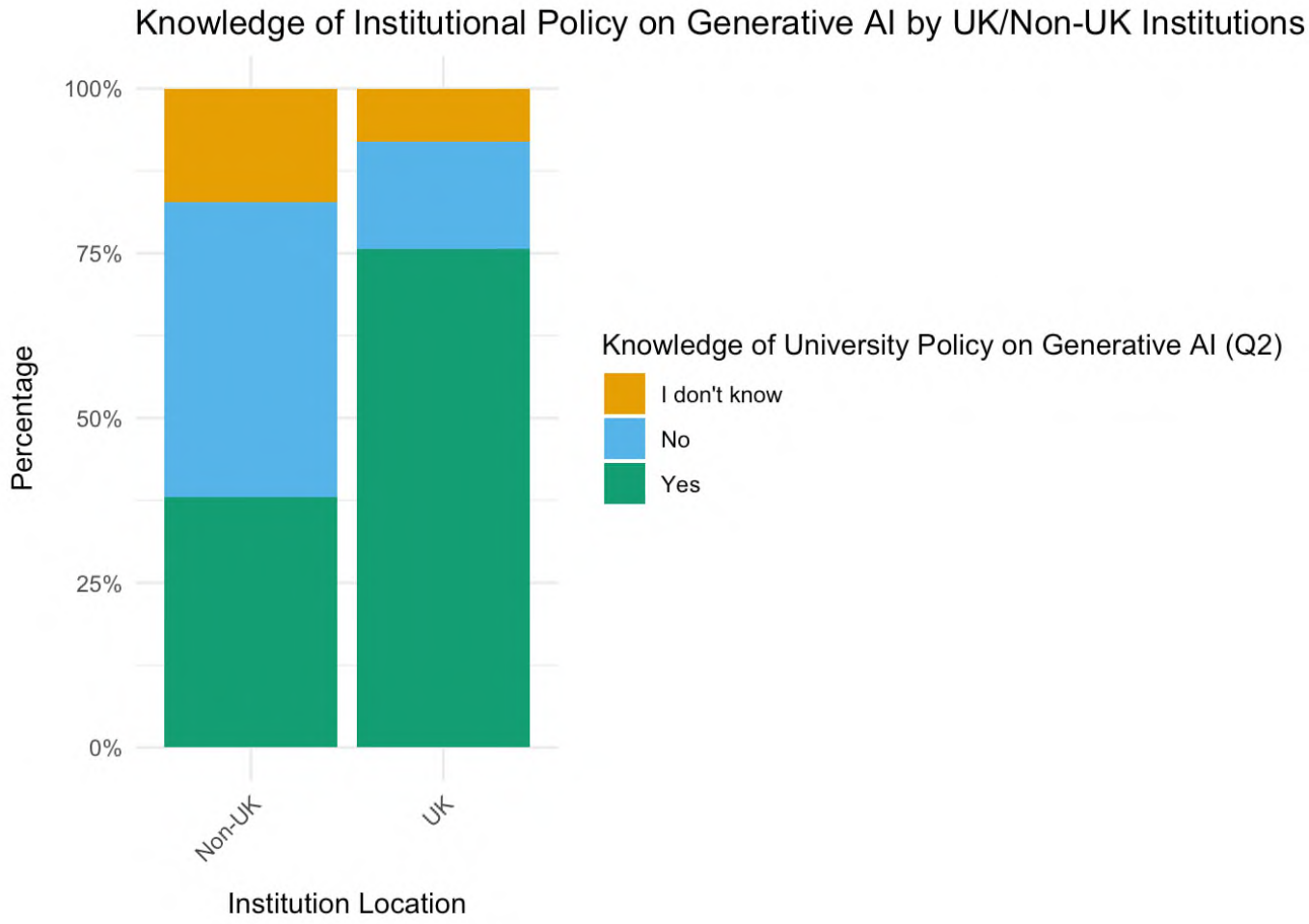
Q2: University policy on the use of Gen AI for assessment

Academics of UK universities were better informed than those of non-UK universities about Institutional Policy on GenAI.

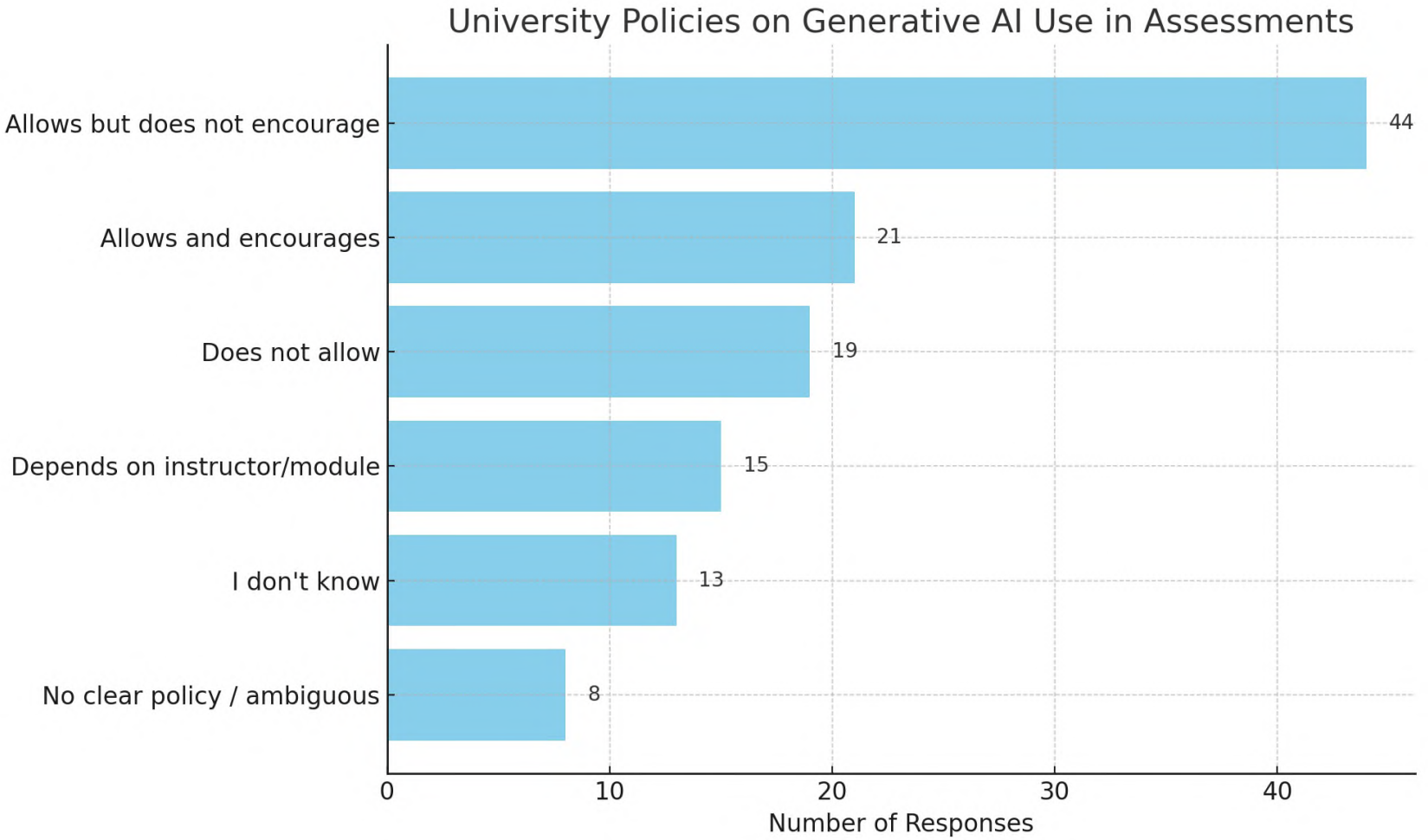
A significant number of academics did not know of a university policy on gen AI (especially non-UK)



What is happening in universities?

CTaLE
Centre for Teaching and Learning Economics

Q3: Does your university …



What is happening in universities?

CTaLE
Centre for Teaching and Learning Economics

Q6: How have assessments changed

A slightly greater proportion of non-UK academics reported designing around AI weaknesses.

About 20% of UK academics reported a return to in-person or more authentic assessments.

The largest change in both types of institutions was to design assessments that are more AI-proof

Codes	Is your institution based in the UK = No (n=29)	Is your institution based in the UK = Yes (n=74)	Total (n=103)
Critical Thinking, Analysis and Reflection	12.5%	13.33%	**13.16%**
Curricular Anchoring	6.25%	13.33%	**11.84%**
Designing Around AI Weaknesses	37.5%	28.33%	**30.26%**
Incorporating AI Critique and Meta-Use	12.5%	10%	**10.53%**
No Assessment Changes	12.5%	6.67%	**7.89%**
Return to In-Person a...thentic" Assessments	12.5%	20%	**18.42%**
Testing Questions and Expectations	6.25%	8.33%	**7.89%**
Total	**100%**	**100%**	**100%**

What is happening in universities?

CTaLE
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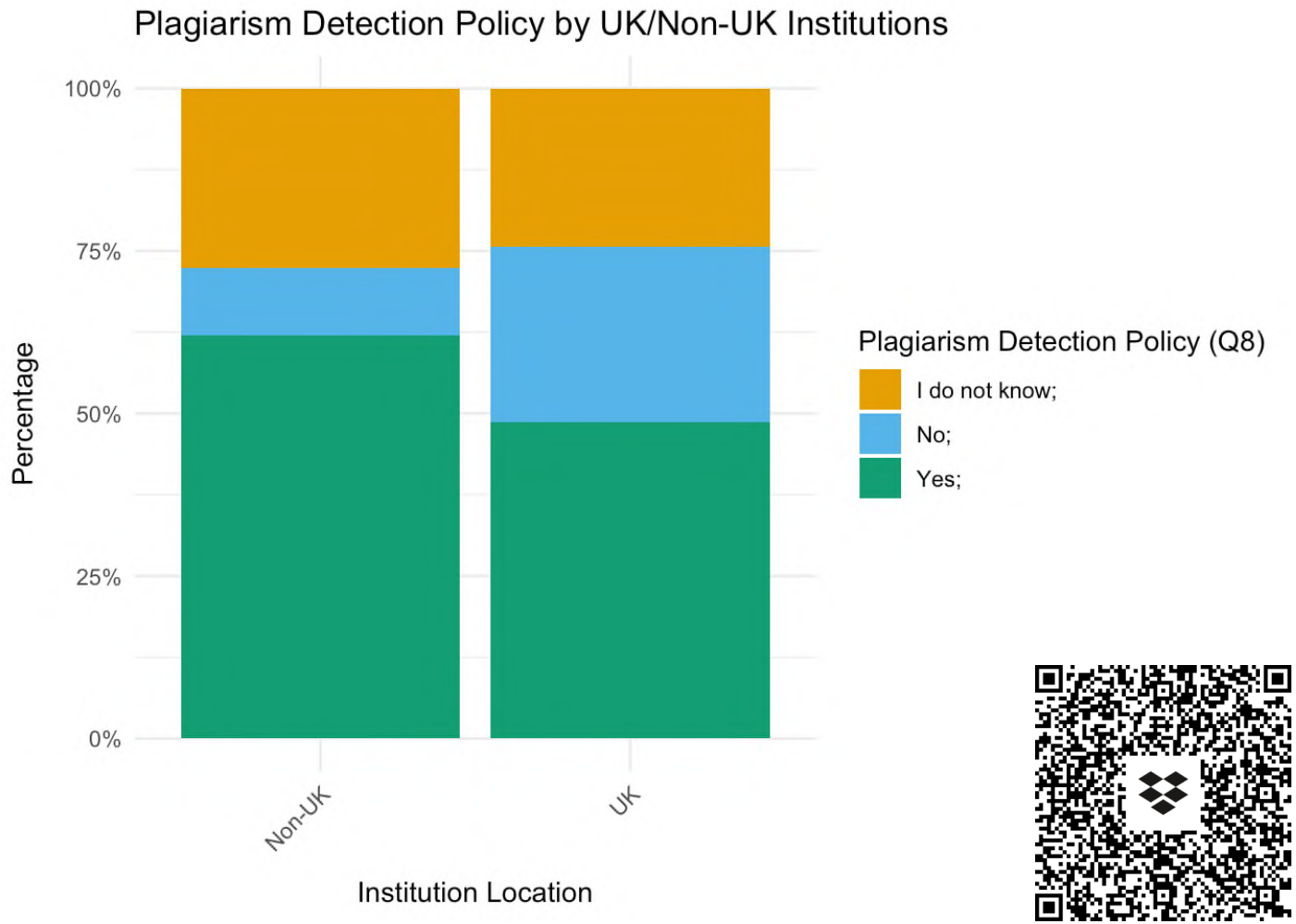
Q8: Plagiarism detection tools

In UK universities a far greater proportion of academics are not allowed to use plagiarism detection tools to detect the use of generative AI.

However, a surprising high proportion (about 50%) is allowed to use plagiarism detection tools in both UK and non-UK universities.



Key takeaways

CTaLE
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1. Assessment is our main lever

- Assessment is one of the few things universities still have agency over. If we want our degrees to remain credible, we must rethink what we assess and how.

- Assessment design reform – two-lane approach, diversified assessment.

- Stay connected with our students' futures – employer boards, alumni feedback

Key takeaways

CTaLE
Centre for Teaching and Learning Economics

2. Design for integrity, not detection

- Fears around academic integrity aren’t new—similar concerns arose with the internet.
- Designing learning that embraces GenAI, rather than trying to “catch” students, has to be the way forward.
- AI detection is unreliable and inequitable. Instead, we must crowdsource solutions, embed AI literacy, and focus on what we want students to learn.

Key takeaways

CTaLE
Centre for Teaching and Learning Economics

3. No borders but no one-size-fits-all

- Institution-specific rules won’t suffice. We need shared principles, ethical frameworks, and communities of practice (rather than just training) that span disciplines and geographies.

- Inclusivity, accessibility and AI literacy—for staff and students - is central.

Key takeaways

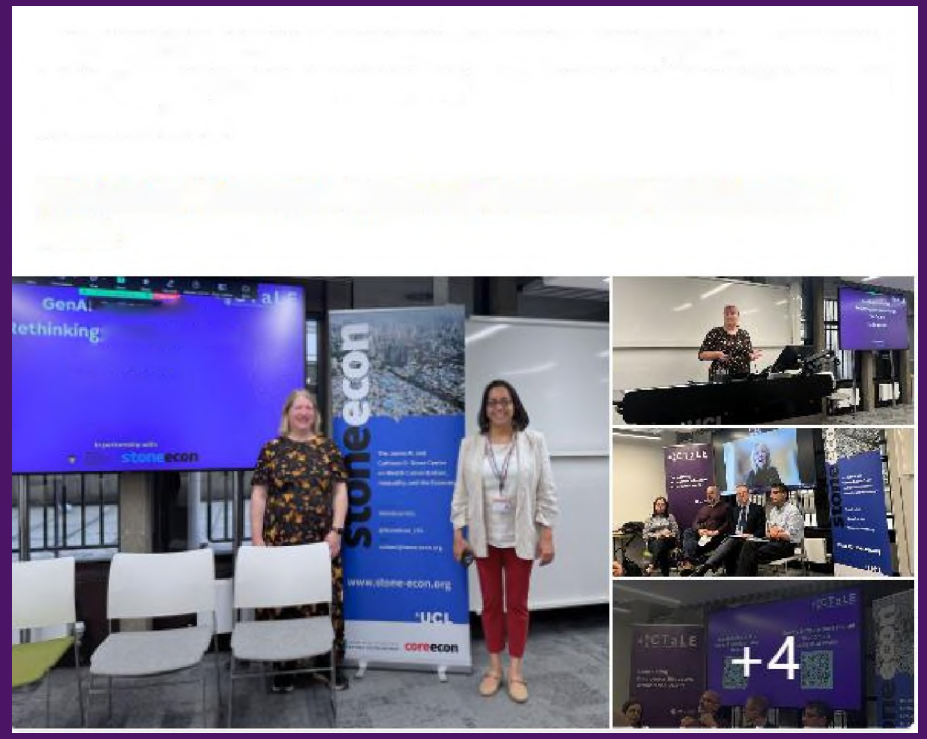
4. Assessment reform needs resource … but GenAI can help.

- From designing assessments to providing feedback, GenAI can help lighten the load.

- But we must tread carefully—especially when it comes to student data.

.

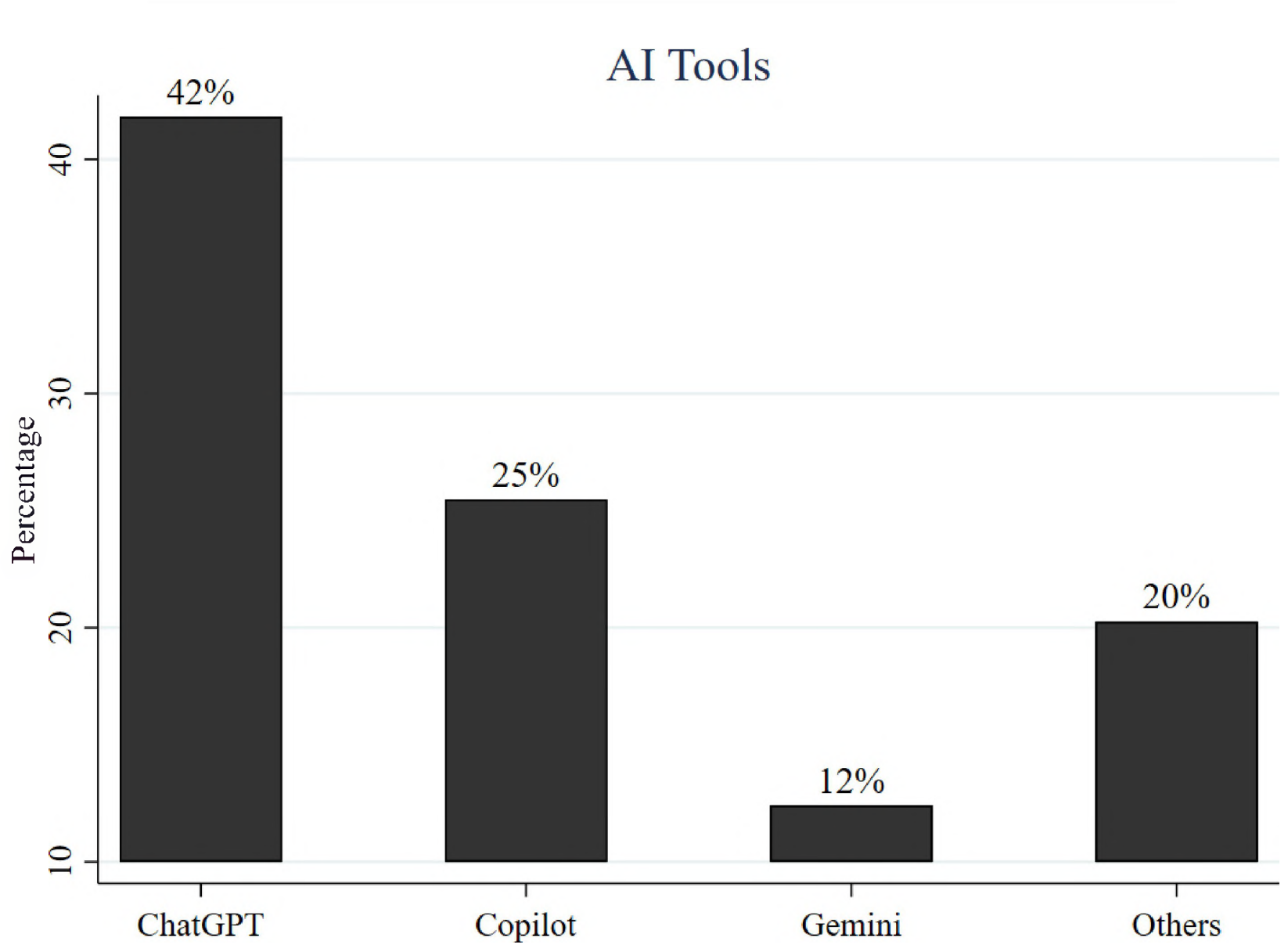
CTaLE
Centre for Teaching and Learning Economics

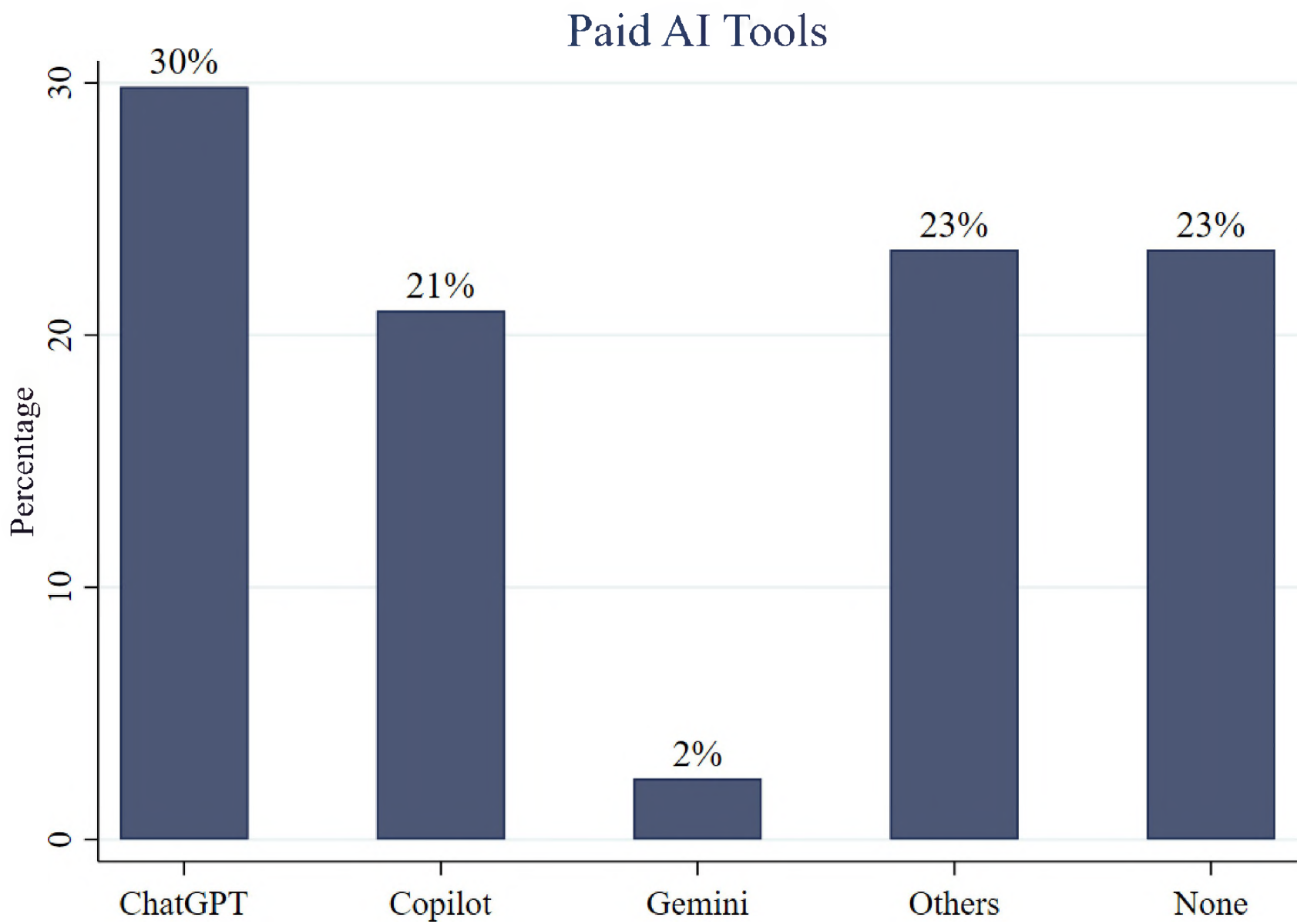


Thank you

Visit our website

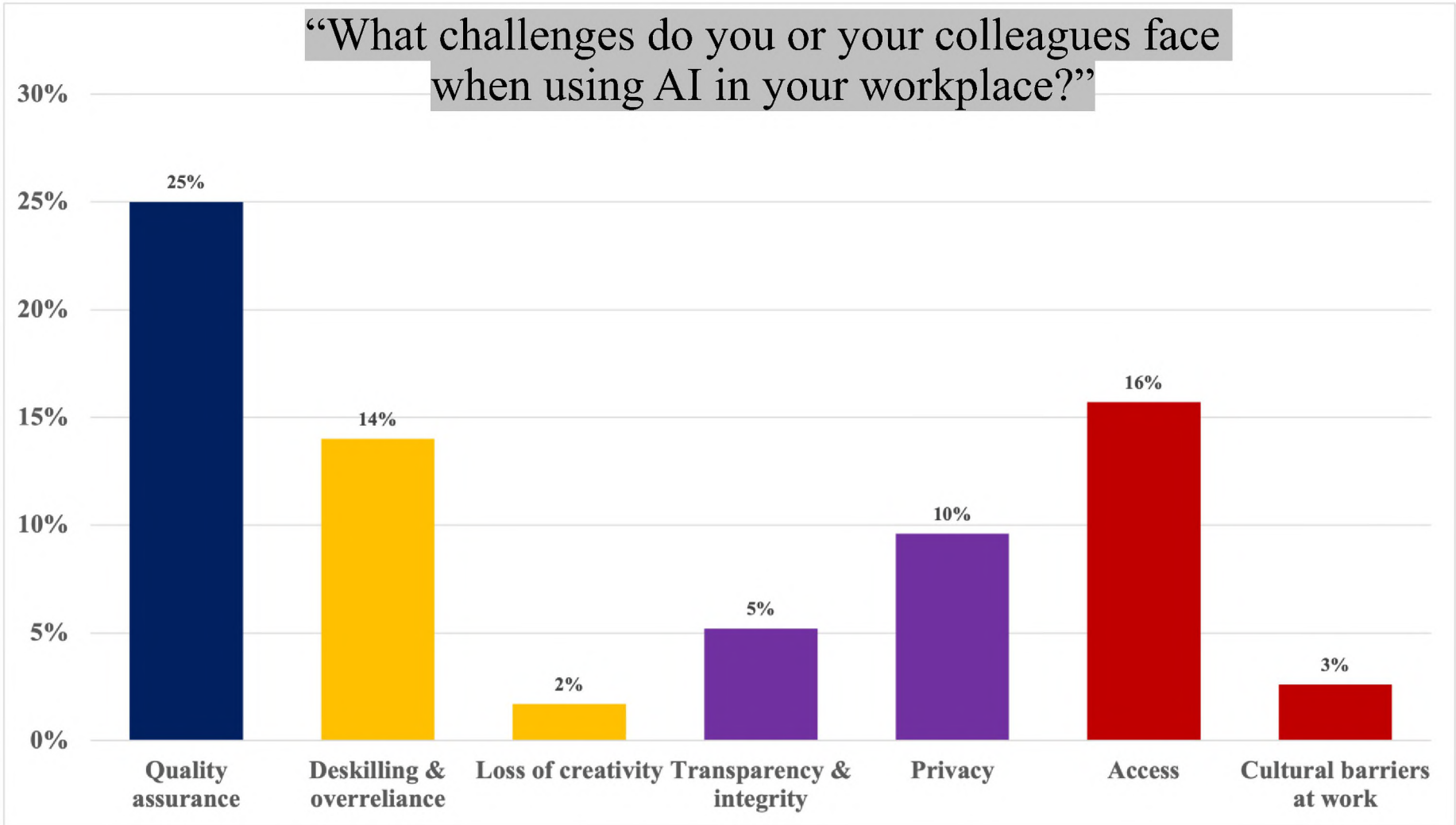
Appendix

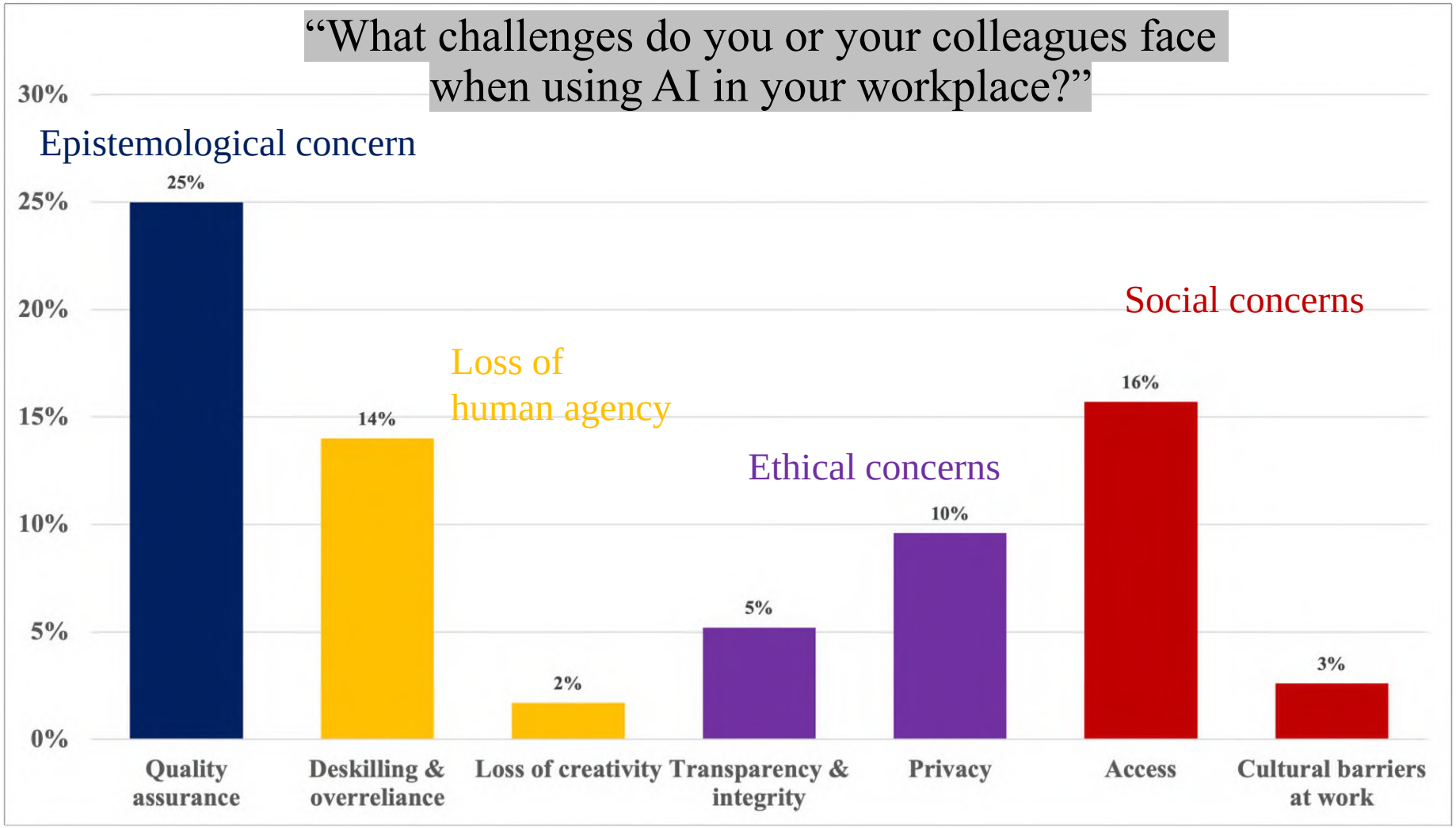

AI Tools
42%
25%
12%
20%
Percentage
10
20
30
40
ChatGPT
Copilot
Gemini
Others

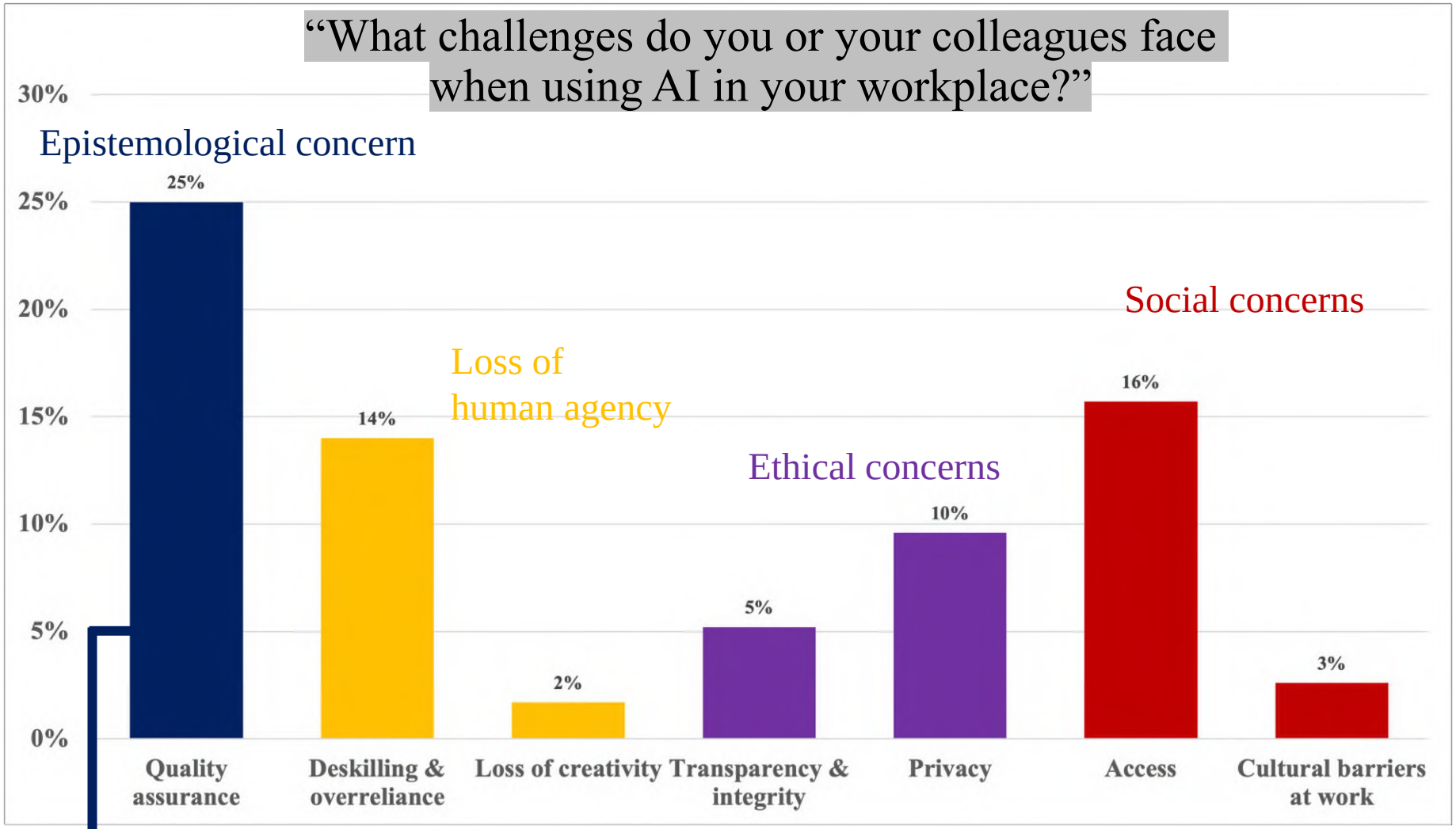

Paid AI Tools
Percentage
0
10
20
30
30%
21%
2%
23%
23%
ChatGPT
Copilot
Gemini
Others
None

Organisational AI-usage guidelines

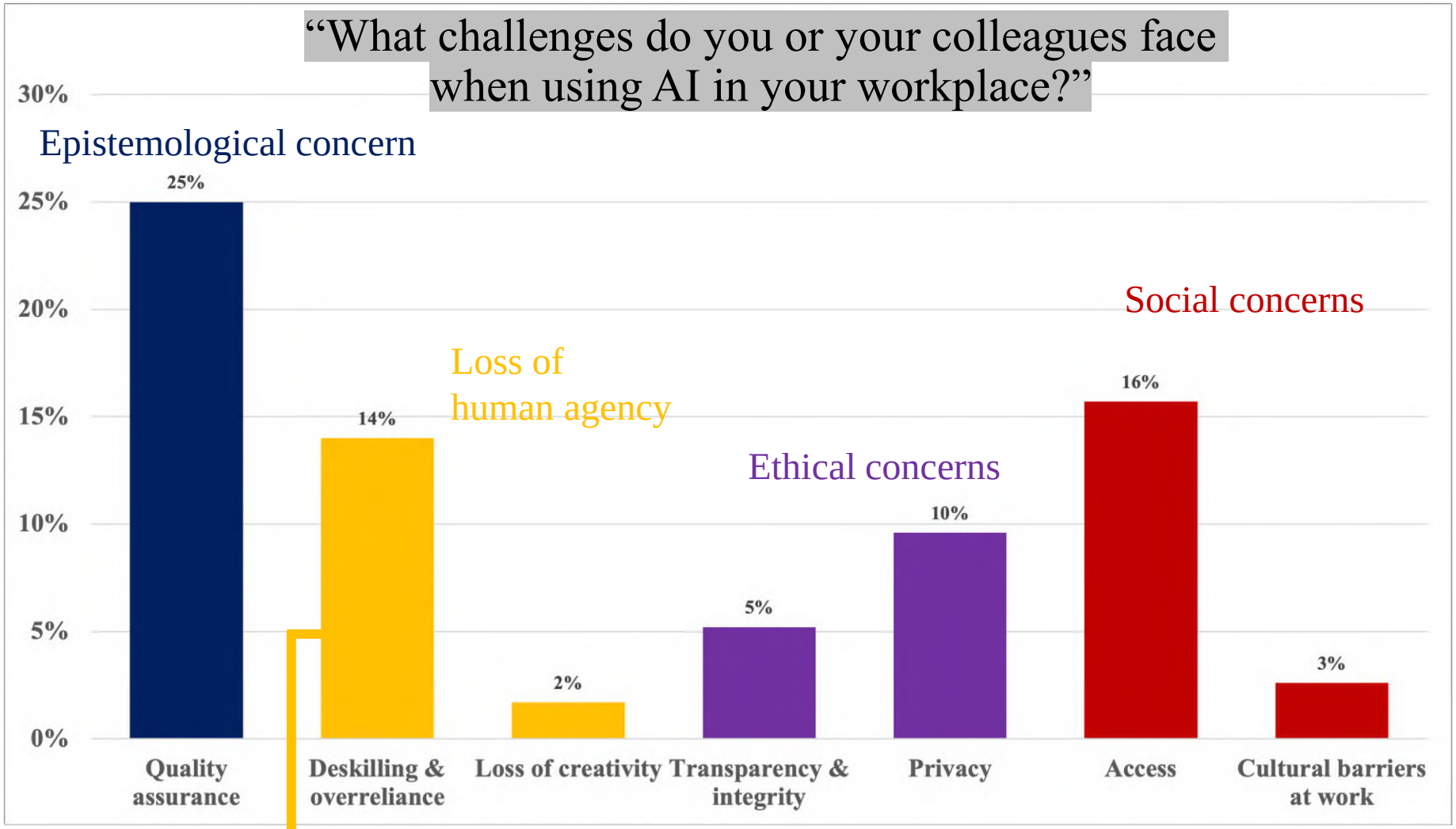
Guideline	**Percentage**
No official guidelines have been established by the organisation yet	25 %
Only approved AI tools can be used	31 %
AI can be used for some sensitive activities (eg, emails) but not to produce content	9 %
AI can be used to produce content but must be reviewed by a human before use	17 %
AI tools are banned entirely in the workplace	1 %
Other	8 %


"What challenges do you or your colleagues face when using AI in your workplace?"
30%
25%
20%
15%
10%
5%
0%
25%
14%
2%
5%
10%
16%
3%
Quality assurance
Deskilling & overreliance
Loss of creativity
Transparency & integrity
Privacy
Access
Cultural barriers at work


"What challenges do you or your colleagues face when using AI in your workplace?"
Epistemological concern
Loss of human agency
Ethical concerns
Social concerns
30%
25%
20%
15%
10%
5%
0%
25%
14%
2%
5%
10%
16%
3%
Quality assurance
Deskilling & overreliance
Loss of creativity
Transparency & integrity
Privacy
Access
Cultural barriers at work

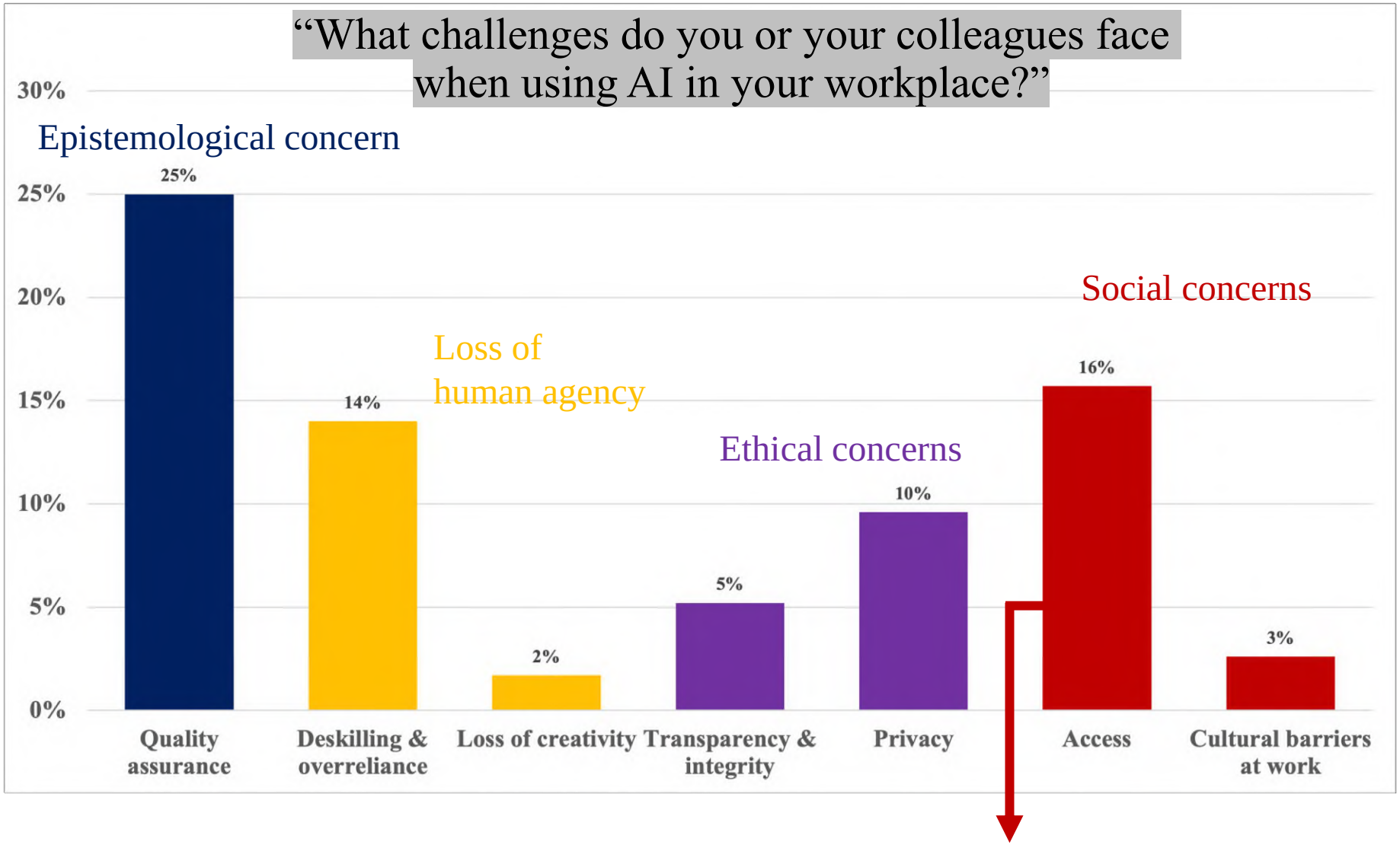


"Hallucinations and inaccurate information"



"It's important to know when it's appropriate to use and when it's not. Not everyone understands where this line is drawn and that can be difficult to navigate".

"Not having access to the latest models with the most advanced features"



"Government is slow to roll out the use of it."

Finding 2: Challenges when using AI

-Epistemological (Quality assurance)

-Loss of human agency (Deskilling, No creativity)

-Ethical (Transparency, Privacy)

-Social (Access, Cultural barriers)

KING'S College LONDON

KING'S BUSINESS SCHOOL

I-LEAD
REIMAGINING BUSINESS EDUCATION

REIMAGINING EDUCATION

THE FUTURE OF LEARNING & TEACHING

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Reimagining Employability: Reflection, Creativity and Career Readiness in an MSc Programme

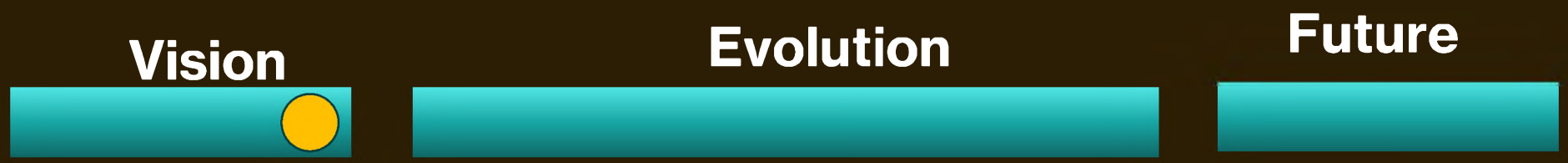
Zahra Abdulla, SFHEA

zahra.abdulla@kcl.ac.uk

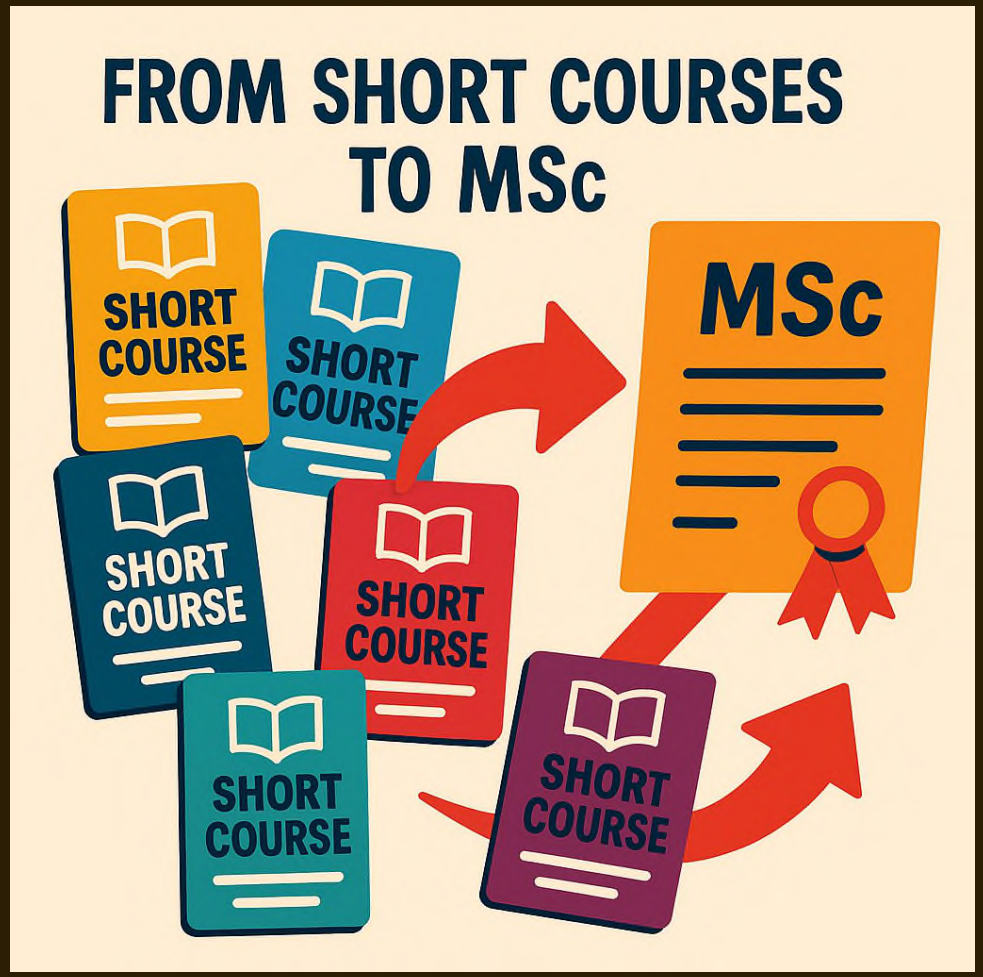
Reimagining Education: The Future of Learning & Teaching

I-Lead Conference

About Me


Vision
Evolution
Future

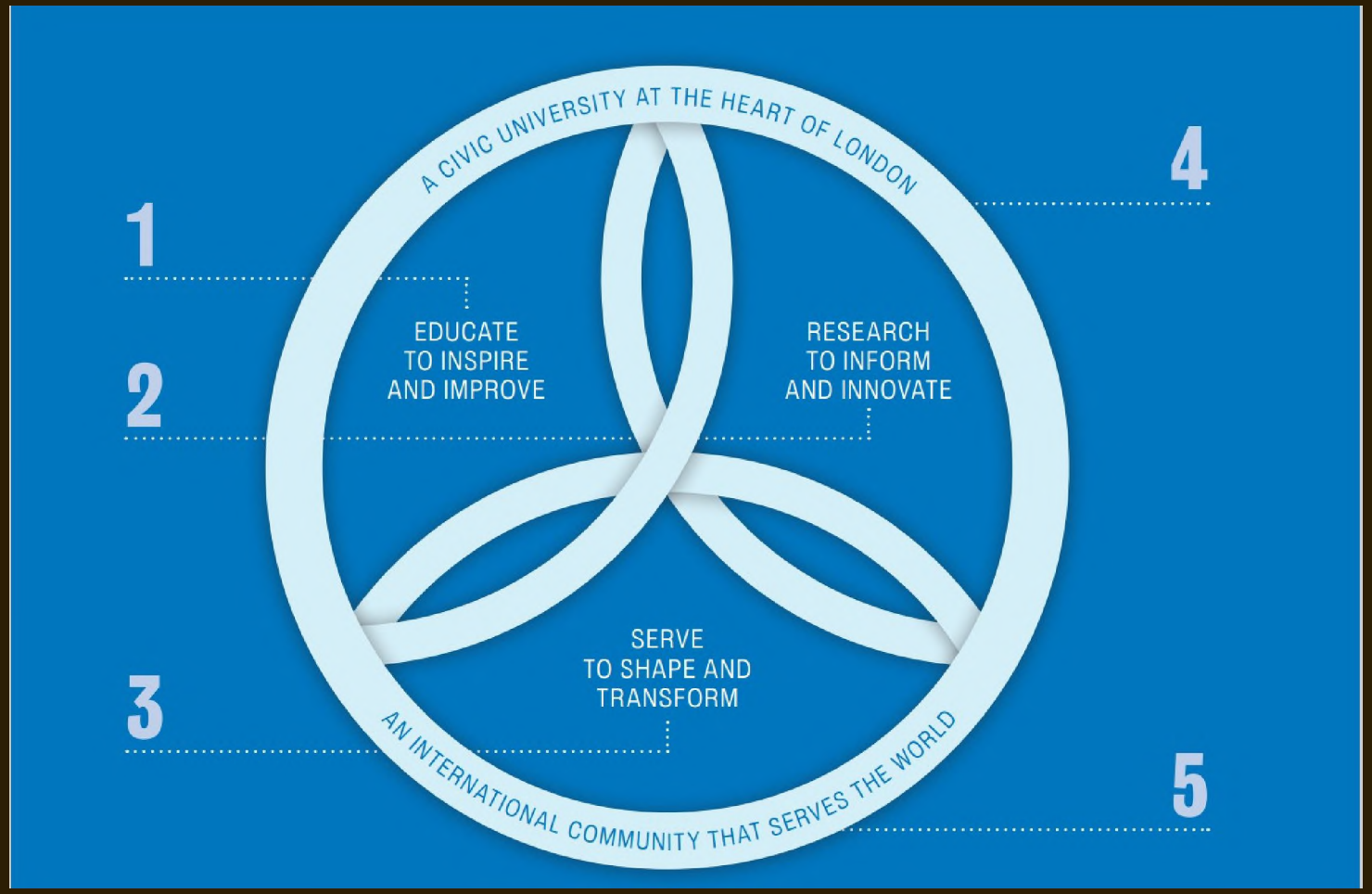
The ASMHI Programme



- Skills Training in a new, exciting field of health Data science training
  - Applied Statistical Modelling and Health Informatics
- Research Informed and backed
- Graduates who will shape and transform the industry.

KING'S College LONDON

EDUCATION STRATEGY 2017–22



World Economic Forum 2018
Most Desired Skills

Curiosity

Lifelong Learning

Emotional Intelligence

Creativity

Leadership

Technological Literacy

Resilience Agility

Analytical Thinking

The ASMHI ePortfolio

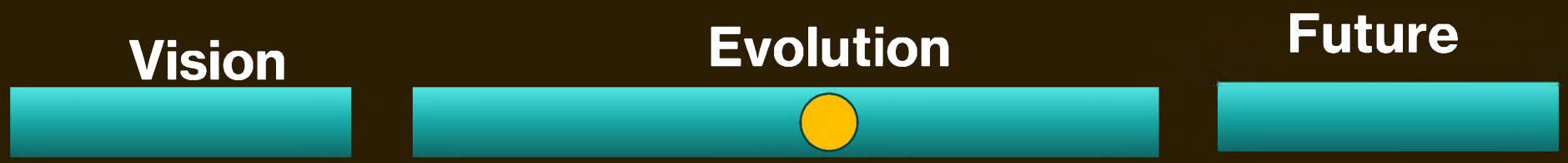
- A programme-level summative assessment
- Pass/Fail
- Reflect on the academic journey, in particular, what skills students have developed
- Vision
  - Something they could share with potential supervisors and employers
  - Build skills stories they can share at interviews
  - Create strong skill statements for CV’s and applications
  - Build a portfolio of achievements.
  - Showcase more than technological skills.

Reflective Practice for Employability: Pedagogical Underpinning

"Active reflective practice enables personal development, self-awareness, and engagement with real experiences."
– Alharahsheh & Abraham (2019)

Reflective writing... fosters employability and encourages students to reflect on professional practice."
– Ross et al. (2023)

"Reflective frameworks serve as valuable tools... leading to an increase in self-awareness and self-efficacy".
- Ali et al. (2024)


Vision
Evolution
Future

The ASMHI ePortfolio 2019/2020

2019/2020

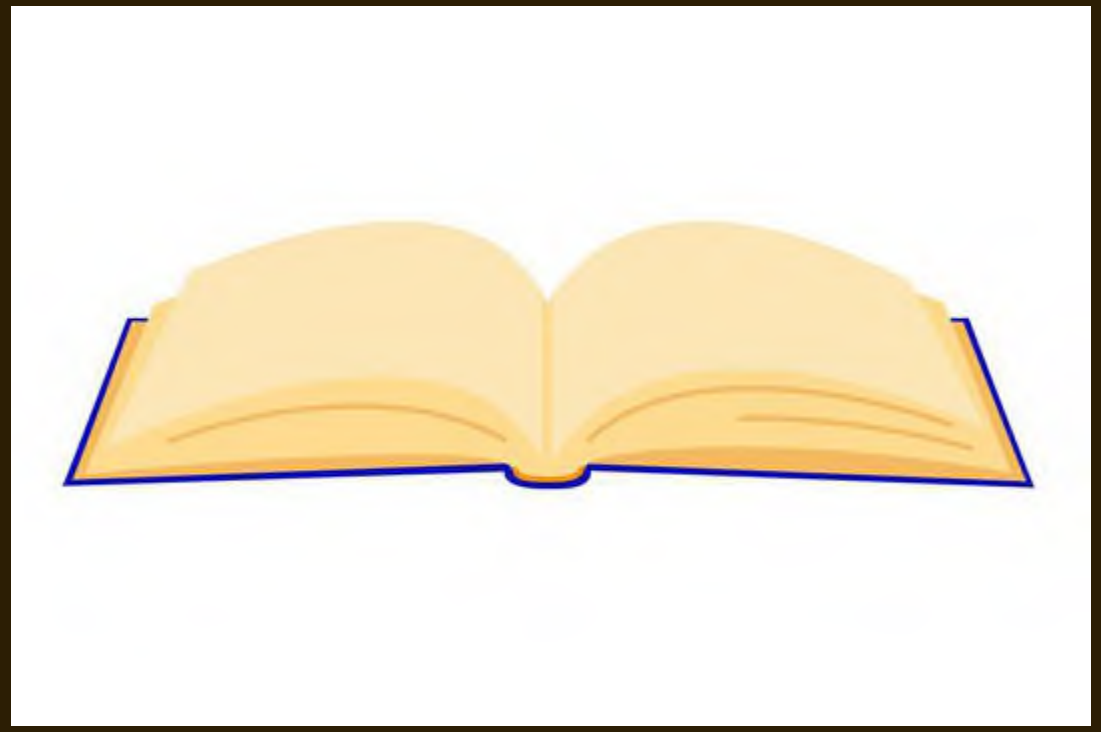
2020/2021

2021/2022

2022/2023

2023/2024

The ASMHI ePortfolio 2020/21



2019/2020

2020/2021

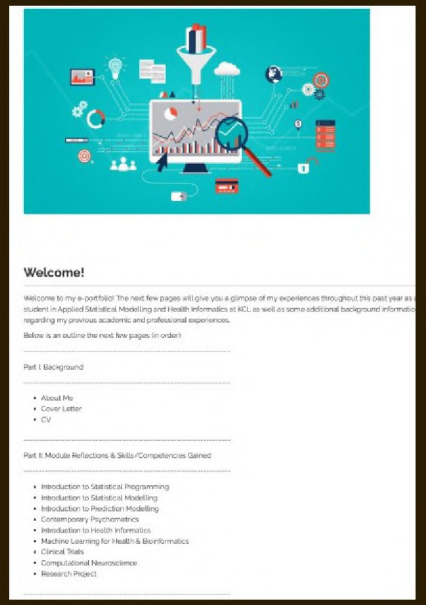
2021/2022

2022/2023

2023/2024

mahara

Examples



Welcome!

Welcome to my e-portfolio! The next few pages will give you a glimpse of my experiences throughout this past year as a student in Applied Statistical Modelling and Health Informatics at KCL, as well as some additional background information regarding my previous academic and professional experiences.

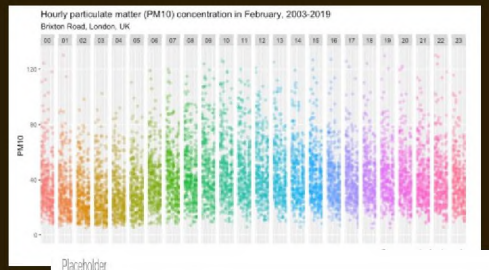
Below is an outline the next few pages (in order):

Part I: Background

- About Me
- Cover Letter
- CV

Part II: Module Reflections & Skills/Competencies Gained

- Introduction to Statistical Programming
- Introduction to Statistical Modelling
- Introduction to Prediction Modelling
- Contemporary Psychometrics
- Introduction to Health Informatics
- Machine Learning for Health & Bioinformatics
- Clinical Trials
- Computational Neuroscience
- Research Project



Placeholder

Posted by Karoline Lippert on 05 December 2020, 1:31a

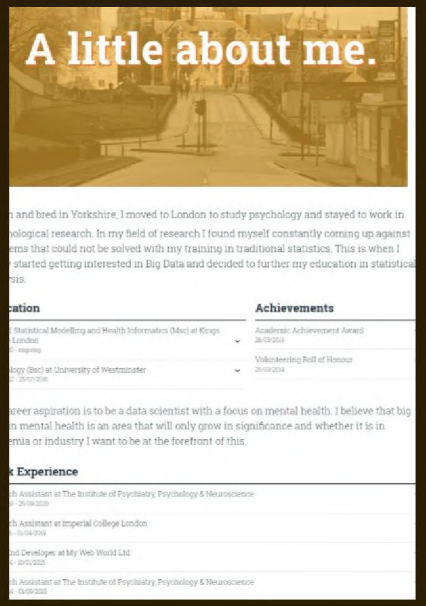
Last updated 15 April 2021, 9:19

Tags: Journal

HOW IT STARTED...

Moving to another city in the middle of a pandemic, let alone country, can be and is daunting. The same applies to begin studying for a MSc (Applied statistical modelling and health informatics) in an unfamiliar field. Some will call it madness or a career change, whereas I will call it personal development and growth. With limited prior knowledge of R, Python and Stata the first module "Introduction to statistical programming" was intimidating at first, especially R and its unfamiliar programming language. Python was also challenging and one week to master each module just felt a little bit overwhelming. Stata was from my perspective the "easiest" to learn and understand within a week, but not without problems. The reason why Stata felt "easier" is because I had acquired basic transferable computing skills, become more confident with the programming language and gained a better understanding of basic data analytics by working vigorously through the R and Python lectures, practicals and assignments. Lockdown also made this a bit harder because, as an international student you rely on social activities by KCLSU (King's College London Student Union) to meet others, since your support network is based back home and/ or is limited as you just moved to the city. On the flipside, I got to focus on the module assignments in R, Python and Stata, and after hours of frustration, hard work and searching for information and/ or help from lecturers, Google, GitHub or Stack overflow I am proud to say I got a distinction. Not bad with a limited programming experience.

Up next is the module "Introduction to statistical modelling" which can be quite challenging as my knowledge of statistics is very limited.



Reflective learning on the first core module.

Module Aims and Description

Introduction to Statistical Programming (ISP) was the first compulsory module of the MSc and aimed to introduce us to three programming languages: **R, Python and Stata**. Apart from this theoretical basis, we had the opportunity to apply the knowledge to a variety of practical problems.

It took place throughout a period of **6 weeks**; 2 weeks for each programming language. **Pre-recorded lectures** were assigned throughout weeks 1, 3 and 5, which involved regular practical, **synchronous sessions.** During these we had the opportunity to practise what was covered in the prerecorded lectures, ask questions and gain useful experience on the programming language.

Every second week we applied knowledge and skills learned in the previous week to an assignment. **Assignments** tested our understanding, ability to identify and put into practice general programming concepts and language specific ones according to exercises given. Exercises ranged from simpler **basic concepts to real world survey analysis.** They were also an opportunity to practise further independent learning and search of appropriate approaches to problems.

Experience and Progress

As a student with a mathematics undergraduate background, **my coding skills were limited** and last practised long before this module begins. Undoubtedly, the thought of learning even the basics of 3 programming languages in one module seemed scary but at the same time **challenging and exciting.**

I knew I was about to gain precious transferable skills that would make me more capable of following my career aspirations - **I wanted to learn.** Teaching weeks were intense and required **consistency** and **persistence**. At the same time they were very **insightful** and promising, as the fast pace allowed concepts ranging from data types and control flows to data manipulation, processing and analysis to be covered.

The assignments were challenging at parts, but through revision of lectures, great support from lecturers and some self study to extend or clarify topics, **I did my best** which left me with the common feeling of **happiness** when a program works!

Knowledge, Skills & Attributes Gained

It was definitely a beneficial course - I can see why we had to do it at the beginning. It equipped me with the **theoretical programming underpinnings** to be used in the rest of the modules and, consequently, in future careers.

Specifically, useful basics covered were conditionals, iterations and functions which were important in **processing data and solving particular data manipulation problems**. Identifying the **appropriate methods** helped formulate the solutions. Self study and assignments strengthened my **independence** in R, Python and Stata use, through finding help online and selecting appropriate packages. I could already see how programming could be **applied in real life** for data manipulation, as well as **interpretation** through visual means and different kinds of plots.

Consequently, apart from confidence in **handling data** and IT skills, I developed a **methodological approach** to problem solving and strengthened my **analytic**, **constructive** and **organisational** skills.

KASE and Reflection

The module covers all major steps of developing and assessing a clinical prediction model, including study design and data preparation, the problem of over-fitting in regression models, how to overcome over-fitting using penalized regression and cross-validation methods, how to deal with missing data, performance assessment and clinical usefulness of a model. I have learned Core Knowledge as below during Prediction Modelling course.

Clinical Prediction Models

- inform health care providers and patients about 1. the risk of developing an disease, 2. the risk of the presence of a disease and 3. about the future course of an illness based on currently available information about the patient

Main types of clinical prediction models

1. Risk prediction models
2. Diagnostic models
3. a) Prognostic models (untreated)
4. b) Prognostic or Prediction models (treated) • predicts likely benefit of treatment (Personalized medicine)

Development (7 Steps of development)

1. Research question and initial data inspection
2. Coding of predictors
3. Model specification
4. Model estimation
5. Evaluation of model performance
6. Internal validation
7. Model presentation. – External Validation (completely new data set) – Impact assessment (Clinical usefulness) (Steyerberg et al. 2014 Eur Heart J. 2014 Aug 1;35(29):1925-31.)

Through the course, I have got more clear understanding of PM(prediction modelling) to explore real-world medical and healthcare data and the challenges :

- Problems in prediction modelling

1. Study design and confounders
2. Validation
3. Clinical usefulness
4. Missing data

- Data pre-processing is a part of prediction

Programming and Modelling skills:

Programming skills:

- **The function pre-process in the R package "caret"** includes important functions to pre-process the predictor data.
- **Ridge and Lasso using Glmnet** • Glmnet is a package that fits a generalized linear model via penalized maximum likelihood. • Performs ridge, lasso and elastic net regression

Modelling skills:

- to properly define the prediction problem
- to identify sources of bias in the construction and reporting of a predictive tool
- to understand regularization, random forest and SVM techniques
- to devise cross-validation strategies for parameter estimation, model selection and prediction performance evaluation
- to evaluate and interpret such models to support fact-based decision making.
- to recognize the complexities introduced by

7 Steps for Predition Models

Measures of

Example Comments

Zahra Abdulla

22 January 2021 at 13:24

Extensive academic and work experience. Based on your goals I cab see this programme to be a great way to meet this and aligns well with everything you are currently doing and have done in the past. I would be interested in hearing what prompted you to learn Japanese and German, do they have similar structures to the language? As someone who has spent way to many years trying to be proactive at learning the piano and acoustic guitar, i may have to see if you can provide me any tips to get more successful with this goal of mine.

16 April 2021 at 11:31

Thanks for the comments, Zahra! I took German for 7 years all through secondary school, and have relatives from Germany, so there was always an incentive to learn. As for Japanese, I lived there for 18 months teaching English, and a goal of mine was to pick up as much of the language as I could to better integrate in to the culture. I'd say that there are some similarities, in that sentence formations change depending on who you are talking to (e.g. 'du' vs 'Sie'), but Japanese expands hugely on that concept, with entirely separate ways of speaking 'politely', 'humbly', and 'respectfully', which can cause insult if you misuse them. Learning Japanese made me appreciate how similar German and English are by comparison.

Top tip for guitar is to keep it close, keep it in tune, and practice little and often - that's important for building up fingertip resistance so the strings stop hurting!

Zahra Abdulla

24 May 2021 at 13:53

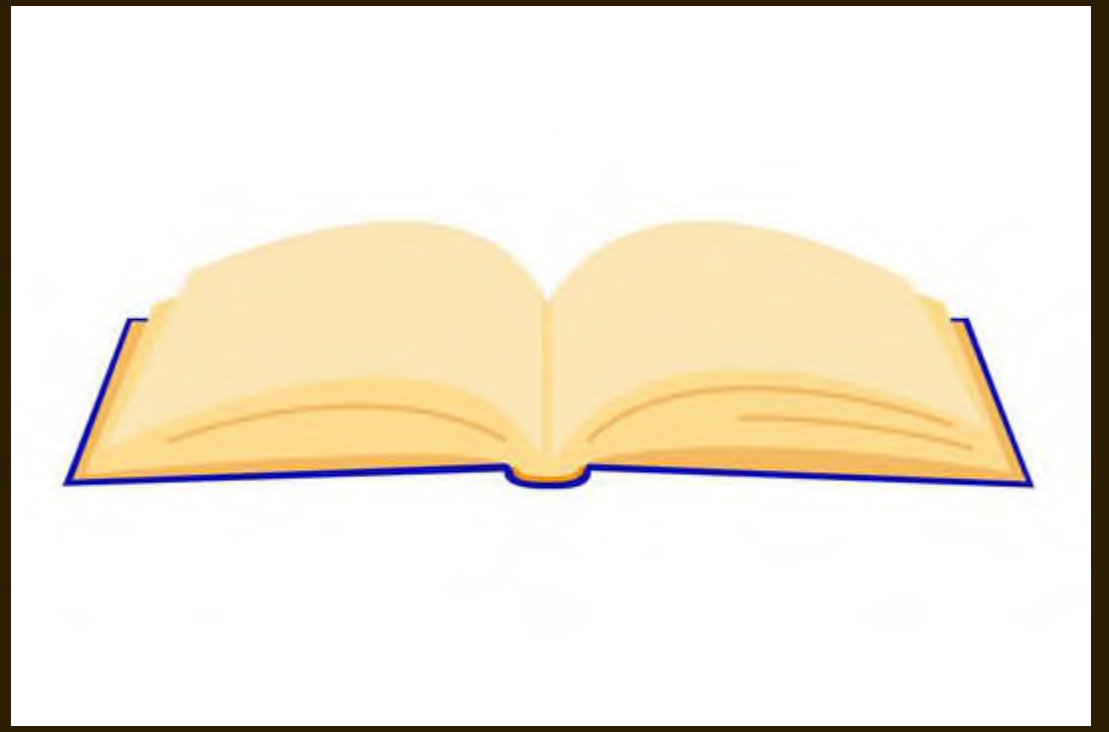
Wow that is so interesting about the Japanese language, I feel like that resonates so much with the beautiful nuances of the culture. I will definitely keep that in mind for the guitar thanks for the tip. Did you find immersing your self in the country made it easier to pick up the language?

Impressions & Feedback

Theme	Feedback Summary	Symbol
Portfolio Structure	Basic requirements met, but for most the design lacked creativity	🟡
Reflection Quality	Range of skill levels from surface-level to insightful	🔴🟢
Engagement via Comments	Some strong student-staff interaction	🟢
Learning More About Students	Helped see more than class allowed	🟢
Student Support Needs	Requests for more structured support sessions	🟠
Overall Perception	Mixed: useful for some, stressful for others (especially during Covid)	🔴🟢

The ASMHI ePortfolio 2022/23

- Dissertation Writing
- Open Science Framework
- Finding and evaluating research – Library Services
- Replication Crisis
- Academic Skills seminars



2019/2020

2020/2021

2021/2022

2022/2023

2023/2024

mahara

More Examples

Introduction of statistical programming is the first model of the MSc in Applied Statistical modelling and Health Informatics, and the very basic course of the entire master's degree. It took part from the beginning week and lasted for three weeks. Each week we were introduced a programming language individually, including Stata, Python and R.

The module was developed by a mixture of teaching methods, including pre-recorded lectures, a regular assignment after the everyday on-campus practical lecture and **Q&A** within the first hour of the lectures. The context was all about the **basic utility** and fundamental **formulas** of the languages, of which the most significant usefulness was conditionals, iterations and build-in functions.

An assessment, consisting of three separate parts for each programming language, was assigned at the end of the teaching weak. It provided us with opportunities to test our understanding ability to implement learnt programming skills.

+ Add comment Details

Since I majored in math and statistics for my Bachelor's degree, I was **dexterous** in programming languages that I practised a lot. Hence, I could perform well in Python and R which were the two languages I used most before. **STATA**, compared to the other two, was **rustier** for me that I rarely used during my undergraduate period. So this time I spent more time tackling questions using STATA and I could confidently say that it went well finally.

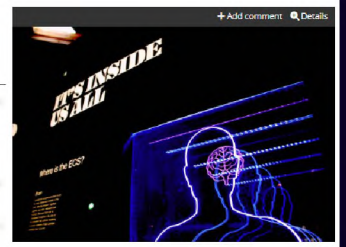
Handling data with Pandas, Matplotlib and Seaborn etc. in Python was highly recommended when persuing an **extreme neatness of data**. Not only could Python and STATA provide **publication-quality figures** and tables, but also **visualised graphs** could be generated. Visualisation is of great significance for designing complex data dashboards and reports, making the database easier to understand.

Finally yet importantly, it was the first time for me to use an online tool (**Rmarkdown and ipython files**) to present my assignment which could be downloaded to HTML and pdf formate. I found the markdown could perform well than row programming methods (e.g. using original R or python editor) in both code writing and data visualisation, as well as log query.

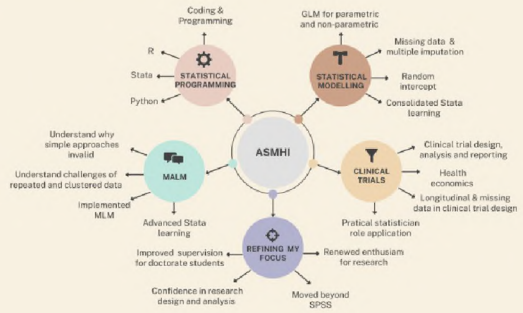
Undoubtedly, what could I gain from this module was **programming skills** (IT skills), which laid a solid foundation for the following modules in automation and machine learning. It allowed me to treat problems from a novel perspective by dividing a complex project into small tasks and then using computation-saving codes to tackle them. It improved the **problem-solving skills** from the origin that abandoned the complicated manual calculation.

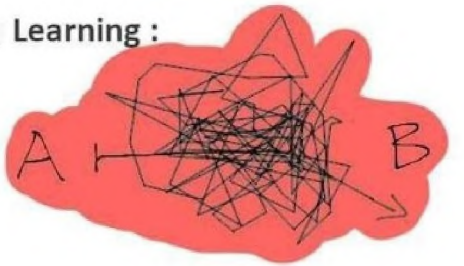
Besides, doing programming using machine language taught me **persistence** that never give up when confronting troubles and bugs. Although debugging would take a long period to find and solve, it was worth testing and modifying the codes that made me persistent and **self-motivated**. After debugging a strong **sense of achievement** arose spontaneously that I would be **confident** in future programming projects.

❤ BACK TO WELLCOME PAGE ❤



Overview from each module and the programme overall

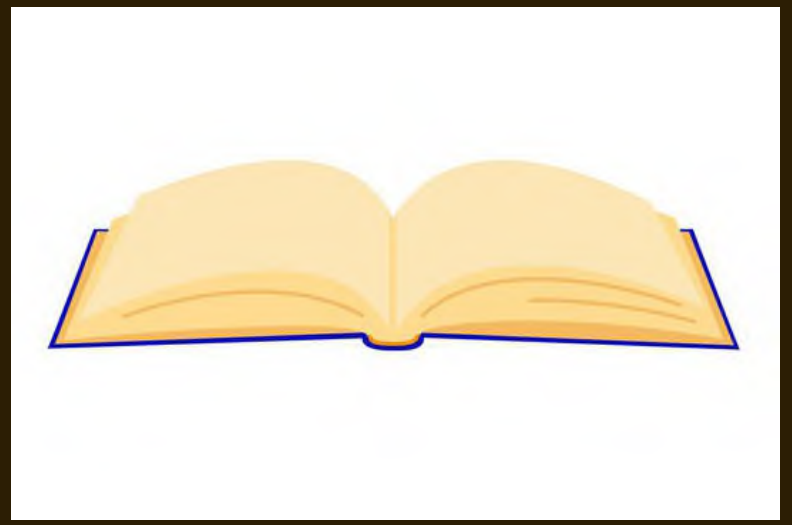




Impressions & Feedback Take 2

Theme	Feedback Summary	Symbol
Portfolio Structure	Mixed: some used advanced features, others did not	🟡
Reflection Quality	Improved insight and clarification of skills	🟡
Engagement via Comments	Not as much interaction with comments, but improvement seen with feedback	🔴🟢
Learning More About Students	Helped see more than class allowed	🟢
Student Support Needs	Requests for more structured support sessions	🟠
Overall Perception	Mixed: It should be optional. useful for some, stressful for others, meaningful for some, less meaningful for others	🔴🟢

The ASMHI ePortfolio PLUS
The ASMHI Seminar Series
2023/24



2019/2020

2020/2021

2021/2022

2022/2023

2023/2024

mahara

New Marking Criteria

Criteria	Beginner (0-20)	Emerging (21-40)	Proficient (41-60)	Professional (61-80)	Exemplary (81-100)
Content Clarity	The ePortfolio lacks clarity and focus. Content is poorly organized, and the narrative is disjointed or incomplete.	The ePortfolio's clarity is limited, and the content is somewhat organized. The narrative may lack cohesiveness or depth.	The ePortfolio demonstrates some clarity and organization. Content is generally well-structured, with a coherent narrative.	The ePortfolio shows strong content clarity and organization. It is well-structured, with a clear, cohesive narrative.	The ePortfolio excels in content clarity and organization. It is exceptionally well-structured, with a compelling and coherent narrative.
Relevance of Artifacts	The ePortfolio contains few relevant artifacts or examples of work. Most examples are unrelated to career or employability goals.	The ePortfolio includes some relevant artifacts, but not all align with career and employability goals.	The ePortfolio comprises predominantly relevant artifacts that align with career and employability goals.	The ePortfolio contains highly relevant artifacts that clearly demonstrate the alignment with career and employability goals.	The ePortfolio is composed entirely of highly relevant artifacts that compellingly illustrate alignment with career and employability goals.
Reflection & Self-Assessment	The ePortfolio lacks self-reflection or self-assessment. Personal growth and learning are not addressed.	The ePortfolio contains limited self-reflection and self-assessment. Personal growth and learning are somewhat explored.	The ePortfolio includes basic self-reflection and self-assessment, touching on personal growth and learning.	The ePortfolio displays strong self-reflection and self-assessment, with in-depth exploration of personal growth and learning.	The ePortfolio excels in self-reflection and self-assessment, providing a profound exploration of personal growth and learning.
Presentation & Design	The ePortfolio's design is chaotic, disorganized, and unprofessional. Visual elements are lacking or inappropriate.	The ePortfolio's design is somewhat disorganized or lacks professionalism. Visual elements may be distracting.	The ePortfolio's design is clean and moderately organized. Visual elements enhance the presentation.	The ePortfolio's design is polished, organized, and professional. Visual elements complement the content.	The ePortfolio's design is outstanding, setting new standards for professionalism and organization. Visual elements elevate the presentation.
Digital Literacy	The ePortfolio demonstrates limited digital literacy skills. Basic technological errors are present.	The ePortfolio displays emerging digital literacy skills, but some technological errors may still be noticeable.	The ePortfolio showcases proficient digital literacy skills, with only minor technological errors.	The ePortfolio highlights professional digital literacy skills, with minimal technological errors.	The ePortfolio exemplifies exceptional digital literacy skills, with no discernible technological errors.
Overall Impact & Usability	The ePortfolio lacks impact and usability. It is difficult to navigate and fails to engage the viewer.	The ePortfolio has limited impact and usability. Navigation is somewhat challenging, and viewer engagement is partial.	The ePortfolio has a moderate impact and usability. It is navigable and engaging.	The ePortfolio has a strong impact and usability. It is easy to navigate, engaging, and functional.	The ePortfolio has an outstanding impact and usability, setting new standards for engagement and navigation.

Seminar Series

Topic	Seminars
Academic Skills	Transition, Note Taking
Personal Skills	Resilience
Careers & Employability	Marketing the brand that is "you"
Careers & Employability	Eportfolio
Academic Skills	Critical thinking & Generative AI
Personal Skills	Time Management
Academic Skills	Journal Club - Reading Critically
Academic Skills	Library Searches - Finding and Evaluating Research
Careers & Employability	Assessment Prep
Academic Skills	Writing Workshop
Research Skills	Research Skills - Ethics 1 (Research)
Research Project (MSc Only)	Dissertation Workshop
Research Skills	Research Skills - Ethics 2 (AI)
Research Project (MSc Only)	Proposal Q&A
Careers & Employability	KASE Writing
Personal Skills	Culture, Equality, Diversity & Inclusion (CEDI)
Careers & Employability	PhD Drive Health
Careers & Employability	Interview Skills
Research Skills	Reproducibility Crisis
Research Skills	Practical Reproducibility
LaTeX Introduction	Related to the dissertation/assignments
Reference/citations software	Dissertation
Academic Skills	Posters and Presentations

Impressions & Feedback Take 3

Theme	Feedback Summary	Symbol
Portfolio Structure	Most used advanced features throughout	
Reflection Quality	Reflection heavily improved	
Engagement via Comments	Improvement seen with feedback	
Learning More About Students	Helped see more than class allowed	
Student Support Needs	Less time and workload burden	
Overall Perception	Mixed reviews: More workshop based; more employability focused	

My third semesters consists of one module ('Natural Language Processing') and the rest of my research project. This meant I was primarily doing my wetlab based project, obtaing data along with my lab group, working on the write-up of my dissertation, and preparing my research poster for the live poster presentation session.

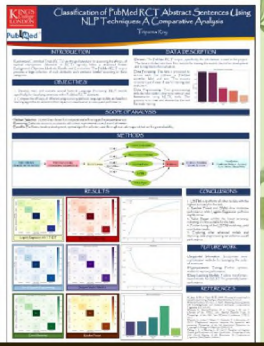
Knowledge: The 'Natural Language Processing (NLP)' module introduced key concepts such as text tokenization, syntactic parsing, sentiment analysis, and machine translation. I learned how NLP algorithms, including recurrent neural networks (RNNs), transformers, and language models like BERT, can be applied to healthcare data such as clinical notes, patient reports, and medical literature. This module also covered the complexities of understanding and processing unstructured text data in health contexts, such as extracting meaningful insights from medical records.

Attitudes: My perspective on the use of NLP in healthcare has evolved. Initially, I viewed NLP as a technical tool primarily for automation, but the module demonstrated its significant potential to improve patient care through applications like automated reporting, symptom extraction, and decision support systems. I now see NLP as a transformative technology that can bridge communication gaps between healthcare professionals and patients, particularly through better interpretation of patient narratives and clinical documentation.

Skills: This module developed my technical skills in working with NLP frameworks, including NLTK, spaCy, and Hugging Face's transformer models. I practiced building text classification models, developing named entity recognition (NER) systems, and performing sentiment analysis on healthcare-related datasets. I also enhanced my ability to preprocess textual data, handle ambiguity, and optimize language models for specific tasks like identifying medical entities or predicting patient outcomes from text.

Experience: Working on real-world health NLP projects provided valuable experience in handling noisy, unstructured data typically found in healthcare environments. I applied NLP techniques to extract clinical information from free-text records and learned about the challenges of dealing with domain-specific jargon and abbreviations. This experience reinforced the importance of accurate language models in healthcare settings, and prepared me to apply NLP methods to improve health

+ Add comment Details



To become a Senior Bioinformatician

Short Term Goals (Next 1-2 years)

- To complete a Master of Science degree in 'Applied Statistical Modelling and Health Informatics'.
- Acquire additional training in bioinformatics through short courses and webinars.
- To obtain practical experience through a research project that focuses on developing skills in bioinformatics.

Medium Term Goals (Next 3-5 years)

- Obtain a junior bioinformatician position in a research institution or in academia as a PhD student.
- Focus my career direction on transcriptomics and proteomics in cancer research.
- Publish research papers or projects related to bioinformatics.
- Build a professional network in the field by attending conferences and workshops.

Long Term Goals (5+ Years)

- To attain expertise in bioinformatic techniques that focus on multi-omics approaches in cancer biology.
- To contribute to the advancement of bioinformatics through innovative research.
- To become a mentor or lecturer within the academia or bioinformatic community.

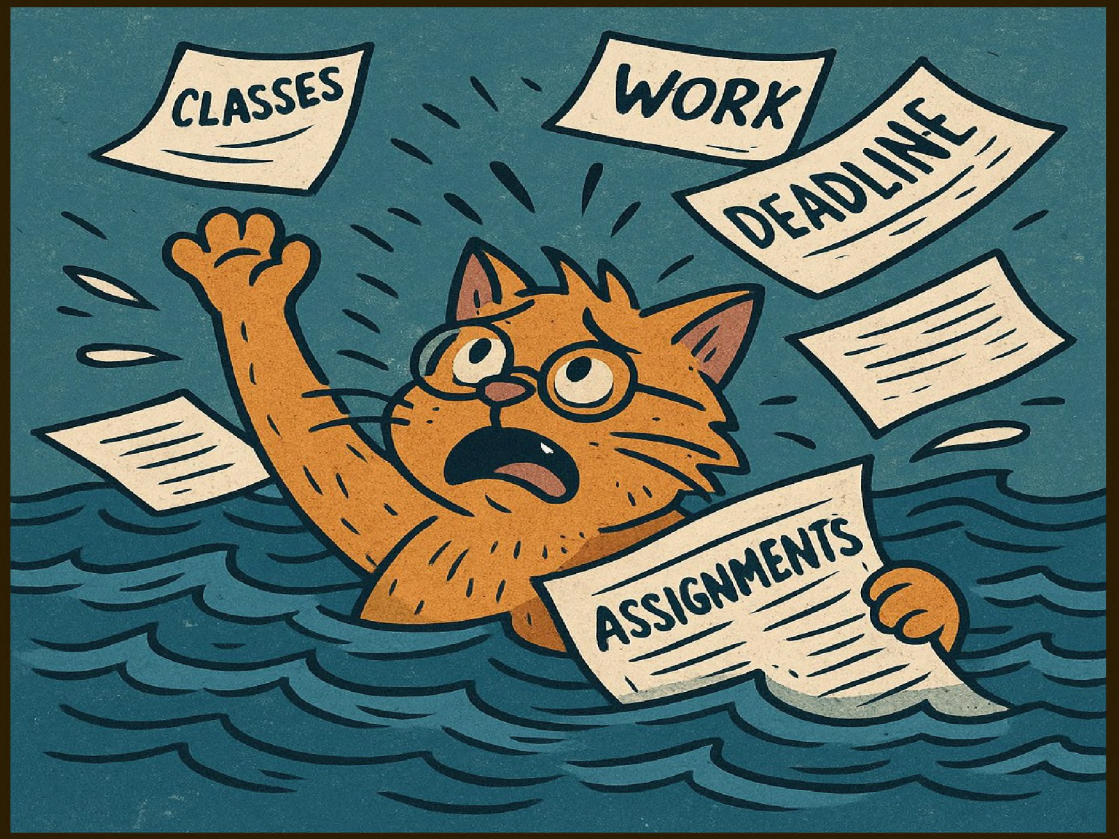
Action Plan and Goals

As I am writing this, I have already started my full-time role as a junior Data Scientist at Ceberus Capital Management. In that sense, I have met my overarching goal of securing a junior data science role within the investment universe. I also initially put as one of my non-negotiables that I would like to have 'A role going beyond the technical with exposure to the implementation stage'. Well, I can confidently say that that is the case. While I may be a Data Scientist on paper, in reality I am more like a product developer/manager with lots of exposure to the client side and currently in the go-live period of the product.

In terms of my **TIME-BOUND goals**, I have met these partially.

- **Goal 1**: Continue expanding my network to at least 35 industry contacts by August 2024
  - I have not spent much time on expanding my network further but instead invested time in building strong relationships with 3-4 of my contacts.
- **Goal 2**: Graduate from the MSc ASMHI on time (September 2024)
  - In progress.
- **Goal 3**: Add at least 1-2 projects to my personal portfolio by September 2024 that showcase my technical abilities beyond what I am learning on the MSc ASMHI.
  - One project is in progress and the other one is on ice at the moment due to me not having any time at the moment.
- **Goal 4**: Finish my pre-doctoral NIHR fellowship ahead of time (ideally November 2024) to be able to take a company up on a job offer for December 2024.
  - I have finished my fellowship as of August 31st 2024 and started my full-time role.

Challenges



The ASMHI ePortfolio PLUS
The NEW ASMHI Seminar Series
2024/25

- Academic Development
- Career Readiness
- Researcher Development
- Personal Effectiveness

2019/2020

2020/2021

2021/2022

2022/2023

2023/2024

Simplified Marking Criteria

Criteria

The ePortfolio assessment will be graded on a scale from "Beginner" to "Exemplary".

Level	Description
 Beginner	Artefacts are basic, demonstrating minimal creativity and understanding of concepts. Reflection is descriptive, with limited self-assessment or goal-setting. The ePortfolio contains little connection between skills, achievements, and their potential application to future learning or career goals.
 Emerging	Artefacts show developing knowledge and skills, with some original input and growing independence in digital tool use. Reflection begins to identify patterns and themes, with basic goal-setting and self-assessment. The student shows some awareness of key skills but struggles to connect them meaningfully to broader learning or career contexts.
 Proficient	Artefacts are well-structured, demonstrating solid knowledge and creative problem-solving. The ePortfolio includes thoughtful reflection on progress, clear goal-setting, and self-assessment. The student effectively identifies and articulates key skills and competencies, linking them to future learning goals and career prospects.
 Professional	Artefacts are high-quality and demonstrate advanced skills, innovation, and mastery of digital tools. Reflection is deep and analytical, with clear goal-setting and regular self-assessment that drives continuous growth. The student effectively integrates key skills and competencies into a narrative that connects personal achievements to future professional or educational objectives.
 Exemplary	Artefacts are exceptional, showcasing expert-level understanding, innovation, and leadership in digital and creative skills. Reflection is comprehensive and insightful, with strategic goal-setting and self-assessment demonstrating a strong ownership over learning. The student skillfully frames their employability and further education competencies, creating a cohesive and compelling narrative of their growth and potential.

This year's challenges

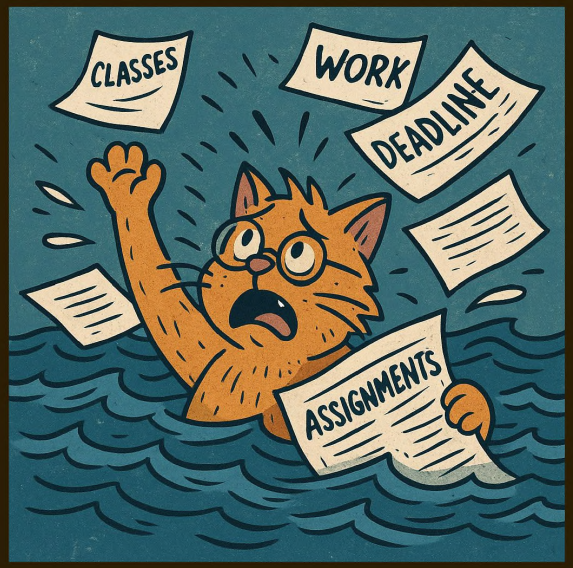
quarto

mahara

WordPress

Notion

Google Sites



What is the point?

What's the point of the ePortfolio?

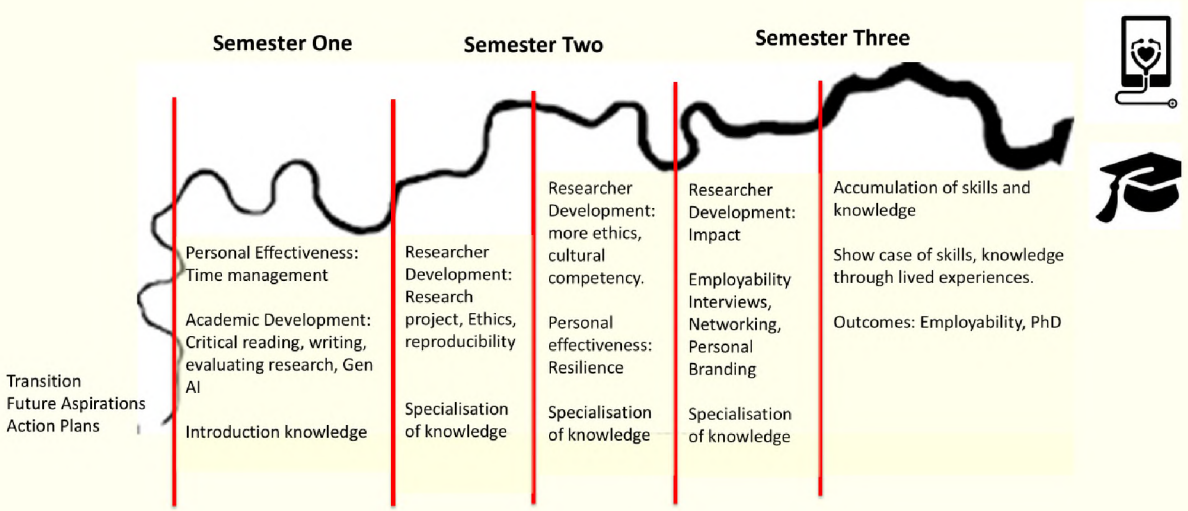
IMPACT

Digital Story Telling

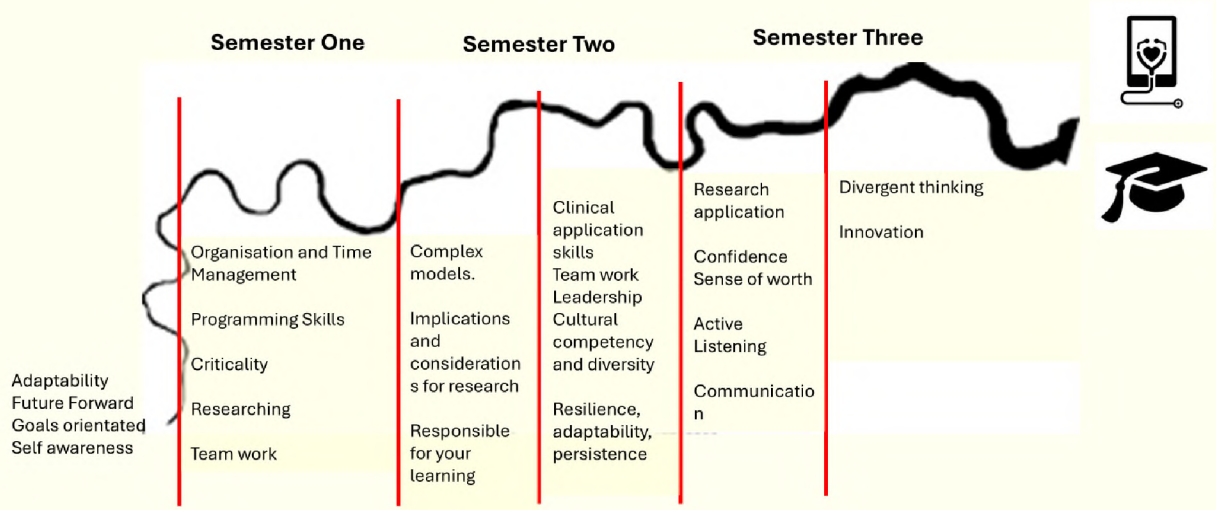
Personal and Professional Branding

Skills and Work Portfolio

Map your skills journey



Map your skills journey



Feedback

"Feedback was constructive"

"Haven't even looked at feedback yet. Barely have time to do the modules i consider more important to a good standard so having this in the background is likely to be the norm."

Sessions I did attend were interesting

"Having more workshop time where we can work 24 on the portfolio would be more useful."

"Waste of time"

I appreciate the utility of having such an ePortfolio

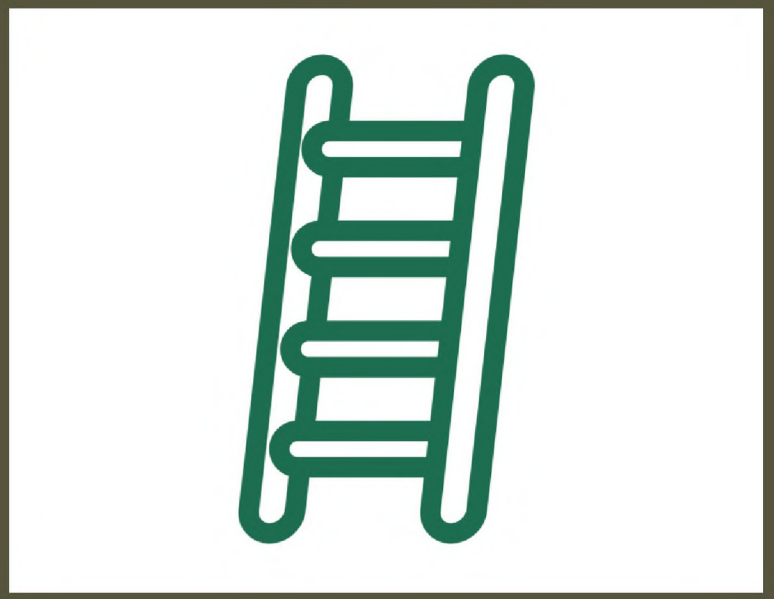
I struggle most with the technical side of this module and think more support here is necessary, e.g., with quarto."

This module needs to be a lot more flexible in the context of the intense workload we have on this course.

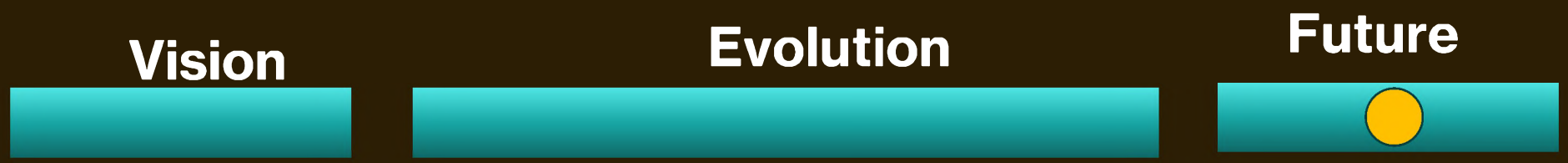
Collaborate more with other Kings departments on some workshops

Not everyone has class on the Monday morning so coming in just for 2h on a Monday afternoon might be difficult for some students

My reflections




TOP
TIPS


Vision
Evolution
Future

What is next for 2025/26?

📆 **Termly Seminar Days**
Shift from weekly sessions to focused, lighter-touch workshop days

🎯 **Clearer Framing**
Stronger alignment to skills domains, employability narrative, and portfolio structure

🛠️ **Platform-Agnostic Approach**
Let students choose how they build their ePortfolio — Quarto or other tools.

🧭 **Enhanced Mapping**
Align ePortfolio more closely with module learning outcomes and King's employability frameworks.

🌍 **Inclusive Growth**
Continue using reflection as a space for students to share identity, barriers, ambitions, not just achievements

Applied Statistical Modelling & Health Informatics

MSc/PGDip/PGCert

2nd in the world for Psychology & Psychiatry*

Receive **world-class training** in core applied statistical methodology, machine learning and computational methodology, and apply your skills to real-life settings.

This unique course equips you with **essential expertise** in multimodal big data techniques—an area of recognised shortage in UK life sciences.

IoPPN Programme Excellence Award Winner 2023-24

KEY BENEFITS:

- A unique and flexible programme designed for researchers in industry and academia seeking methodological skills to boost their research excellence and employability.
- Gain expertise in multimodal and big data analysis techniques.
- Discover how electronic health records, social media, omics, wearables, and smartphone data provide unique insights to improve patient outcomes.
- Apply your skills in real-world health settings, supported by the world-leading Institute of Psychiatry, Psychology & Neuroscience.
- Engage with the IoPPN's statistical and health informatics research groups and benefit from our strong links with industry and the NHS.

More online

For full details of this course, please scan the QR code or visit:

kcl.ac.uk/study/postgraduate-taught/courses/applied-statistical-modelling-health-informatics

* US News, Best Global Universities 2023

CAREERS:

Advance your career in health data science, biostatistics, and biomedical research, paving the way for roles in healthcare, pharmaceuticals, tech, start-ups, government, and academia.

Zahra Abdulla SFHEA
Zahra.Abdulla@kcl.ac.uk

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REIMAGINING BUSINESS EDUCATION

SESSION 2 – TRACK 3: EMPLOYABILITY AND WORK-RELATED LEARNING

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UCD Michael Smurfit Graduate Business School

UCD Smurfit School MBA LEAP: A Case Study in Co-Created Authentic Assessment & Employability Development in the Curriculum

I-LEAD Conference, Kings Business School, London, June 19th, 2025

Bernie Burke, MBA LEAP Module Co-Lead & Careers Consultant

contact information: **bernie.burke@ucd.ie**

UCD Smurfit School MBA Programmes

ASSOCIATION OF MBAS ACCREDITED

EQUIS ACCREDITED

AACSB ACCREDITED

GLOBAL NETWORK FOR ADVANCED MANAGEMENT

A Co-Creation Approach

Smurfit Careers Partnership Approach

A Research Based Approach

Evidence-Based Design, Grounded in Occupation Psychology

Competence v Intelligence (McClelland)

Occupational v Clinical Personality (Saville)

Criterion Based Competency Model (Bartram, Kurz)

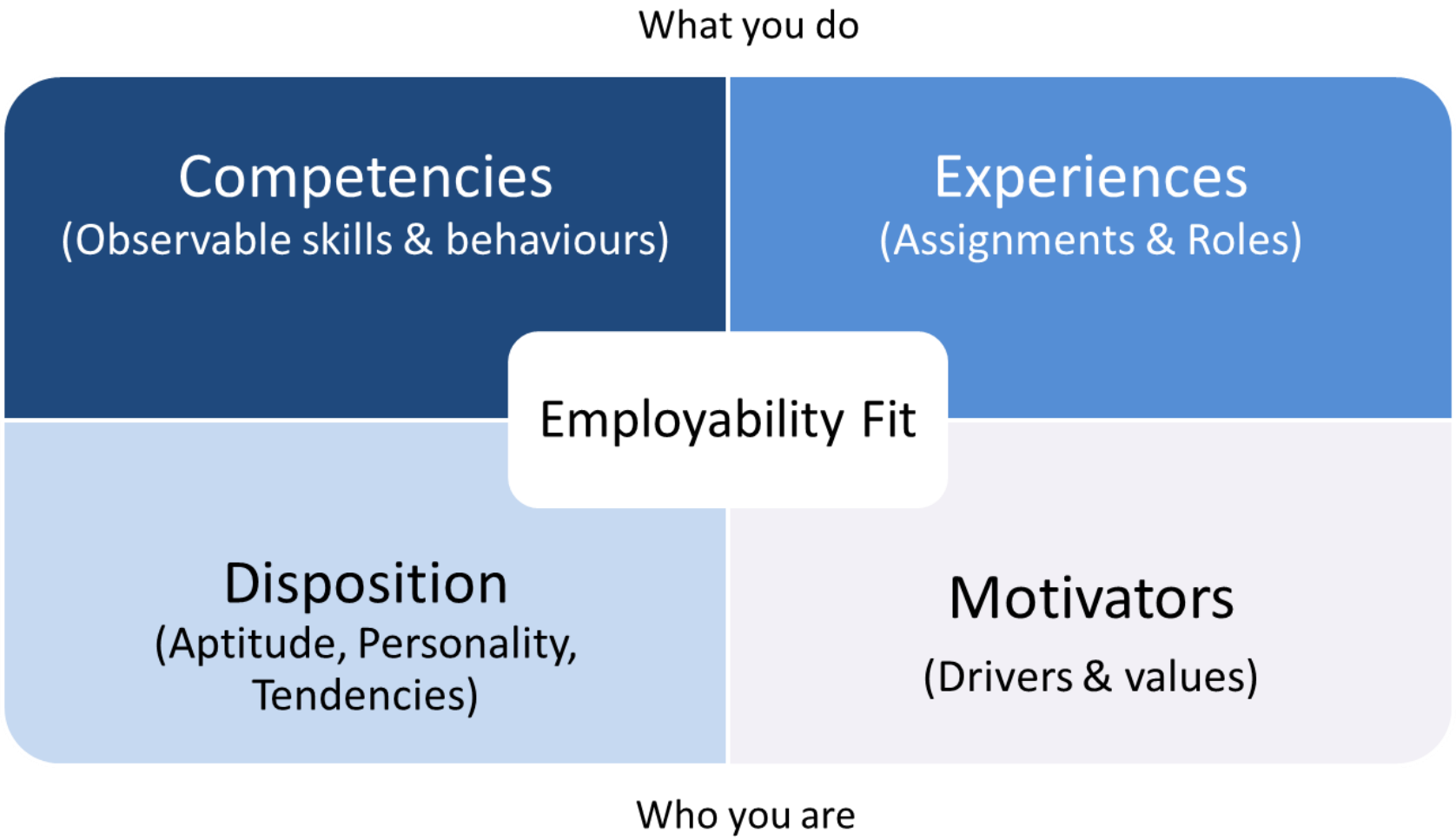
Industry/Practitioner Input & Standard (External)

Student Learning Experience (Deci & Ryan)

Intelligence Augmentation (Dede)

Designing a WIL Assessment for the Classroom

Authentic Industry Assessment in the Classroom



Features of LEAP Design

6 Global Competencies

Universal Design for Learning

Experiential Learning

Peer Assessment

Alumni Integration

Employability Benchmarking

Work-Integrated Learning

Reflexivity

Transfer of Learning Back to the Workplace

A Shared Scaffolding

LEAP Global Competencies

Critical Thinking and Innovation

Communication and Influencing

Adaptability

Inclusive Leadership

Teamwork and Collaboration

Results Focus

Name of Competency e.g. Inclusive Leadership

Descriptor which describes what the competency looks like across all levels – its general behavioural attributes. Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas porttitor congue massa. Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero, sit amet commodo magna eros quis urna.

Level 1	Level 2	Level 3	Level 4	Level 5
• **Positive behavioural descriptor at level which is observable, measurable and discreet** • Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, • Lorem ipsum dolor sit amet, consectetuer.	• Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas • Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing	• Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas • Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing	• Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas • Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing	• Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Maecenas • Fusce posuere, magna sed pulvinar ultricies, purus lectus malesuada libero • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, • Lorem ipsum dolor sit amet, consectetuer adipiscing Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing • Lorem ipsum dolor sit amet, consectetuer adipiscing

WHAT IT IS NOT

- **Describe what it is not e.g. excludes others, not asking for others input**
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- Lorem ipsum dolor sit amet, consectetuer.

* Lorem ipsum dolor sit amet
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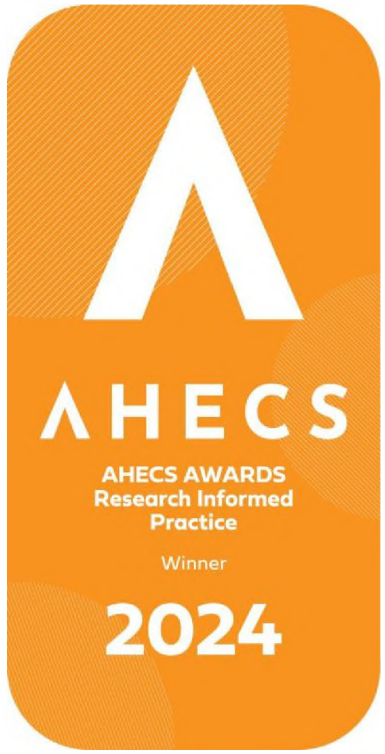
LEAP Awards


AHECS
AHECS AWARDS
Research Informed
Practice
Winner
2024


10th ANNIVERSARY
10th ANNIVERSARY
the
abp
awards
2024
WINNER


AMBA & BGA
Excellence
Awards
SHORTLISTED
BEST INNOVATION
STRATEGY 2025

Mile buíochas! (Meela–bwee-cus)

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THE FUTURE OF LEARNING & TEACHING

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Events, Decisions & Elegant Solutions

PhD Thesis: Claire Drakeley

Developing a causal model for decision making in the events industry: A mixed method study

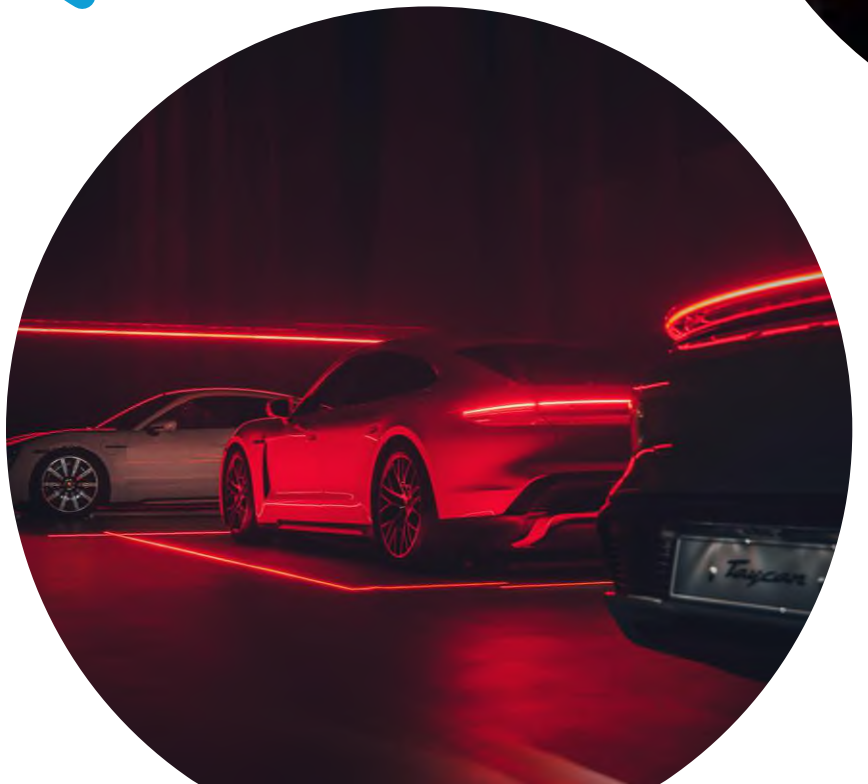
WE NEED TO MAKE BETTER DECISIONS.

What is the Research Problem?

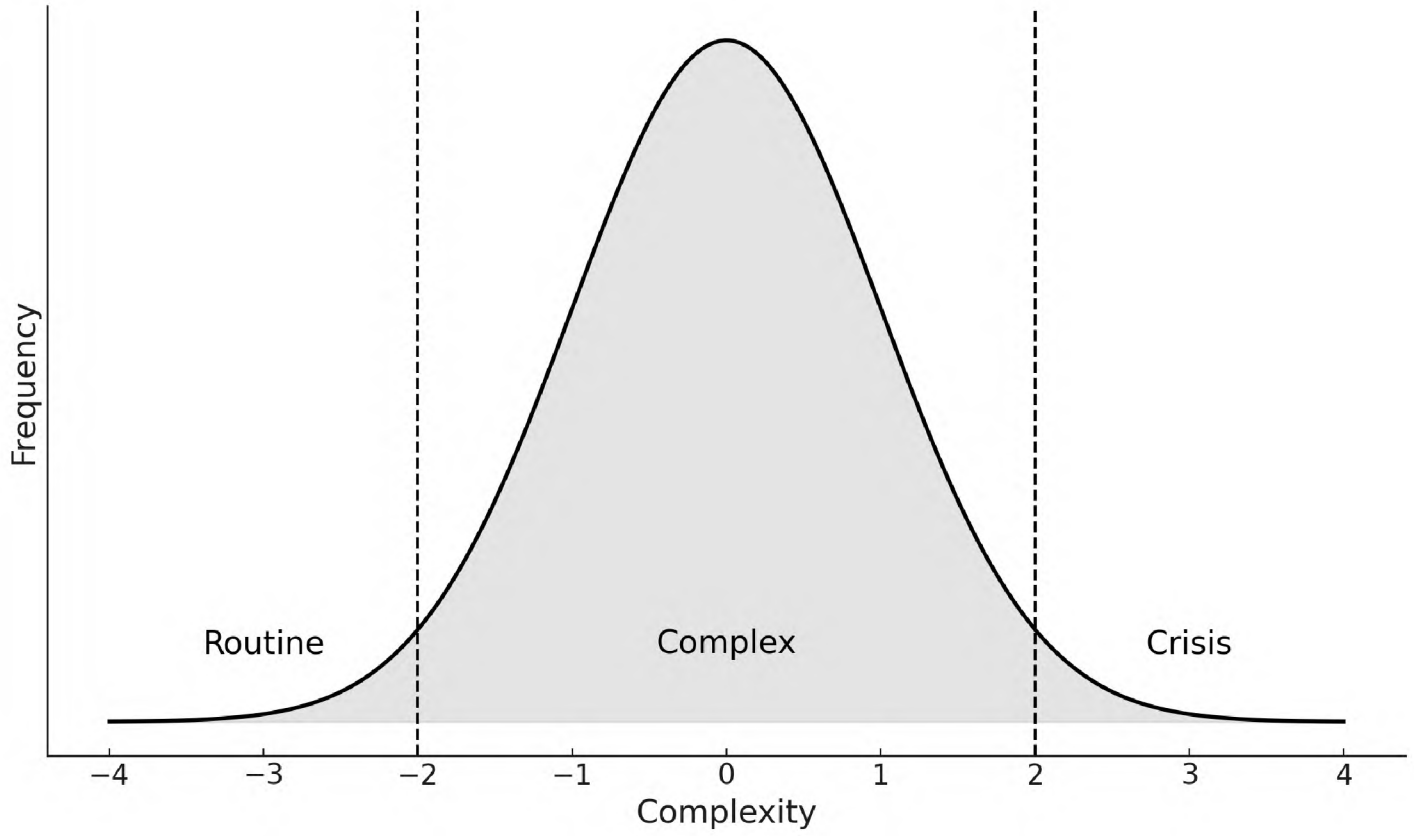
Decision making in the event industry is often **adhoc and highly subjective**, being based on intuition, heuristics and neural constructs, particularly when in the midst of live event operations.

There is **significant risk of failure** in event management decision making with significant consequences in terms of safety, finance, reputation and event operations.

Decision making in these complex situations needs to be more **transparent, robust and include stakeholder buy-in** throughout the decision-making process to ensure a greater likelihood of achieving successful outcomes.



Can’t we plan for everything?



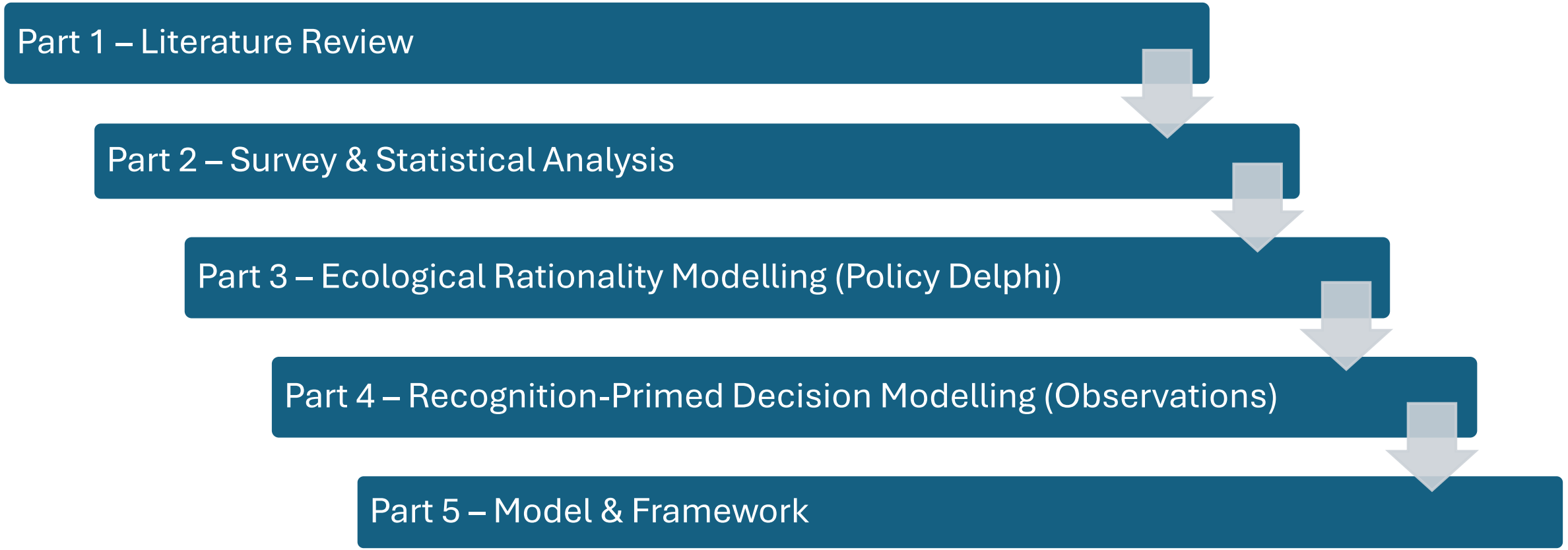
Research Problem – Part 1: Mitigating the risk of decision failure
Research Problem – Part 2: Lack of models and frameworks to address the risk

Research Question: How can on-event decision making be improved?

Hypothesis 1: On-event decision-making can be optimised by a heuristic-based framework

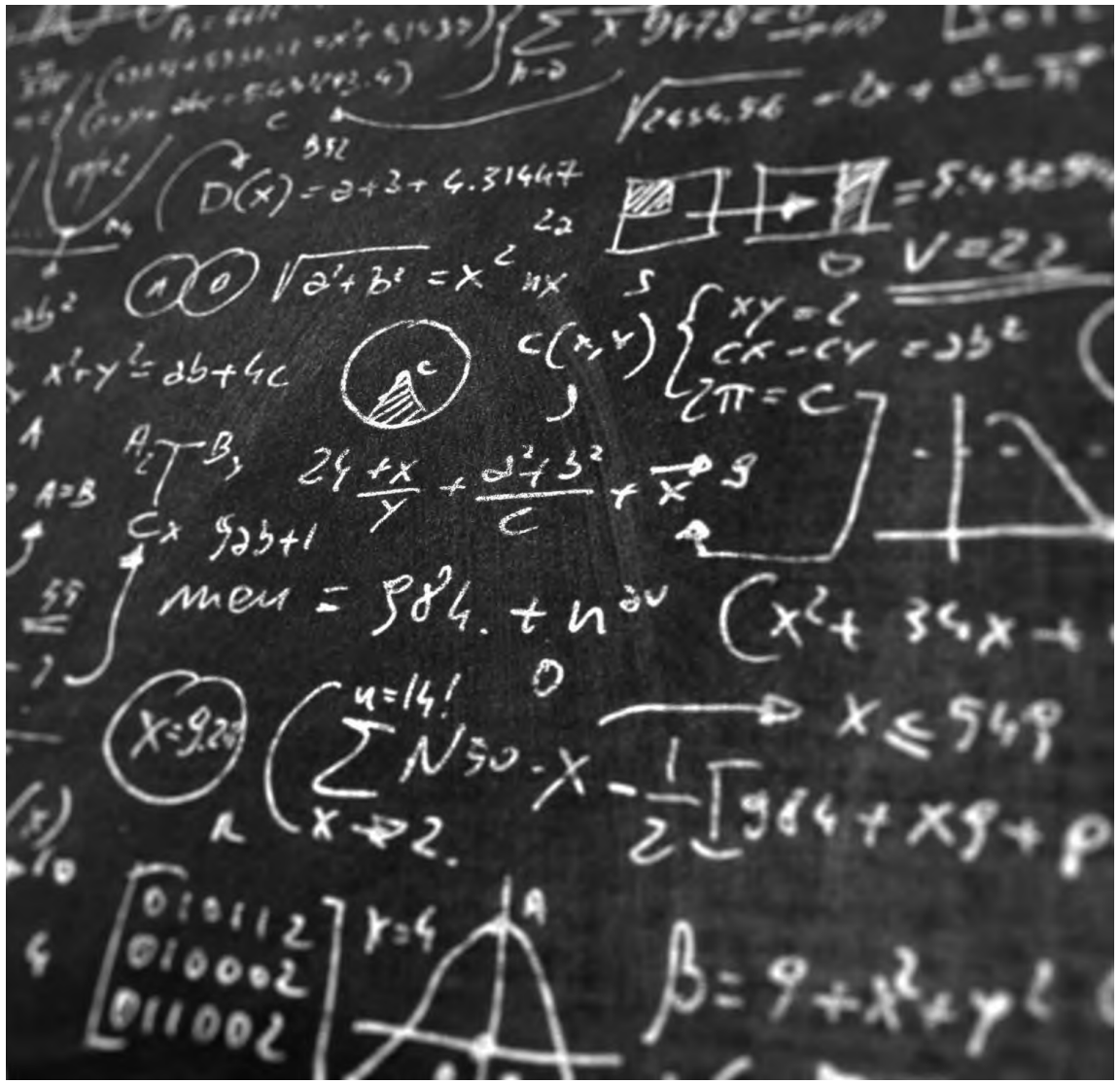
Hypothesis 2: An adapted RPD model for events achieves a high level of Ecological Rationality and thereby an effective on-event decision = F(RPDmodel)

The research uses a mixed methods approach to explore a complex situation.



Axiomatic Rationality

- Decisions adhere to abstract axioms or rules
- Choices can be represented by a Utility function (von Neumann & Morgenstern, 2007)
- Functions in “small worlds” (Savage, 1954) where future states and consequences of actions are calculable and known (that is, well-defined problems).



Decision Theory

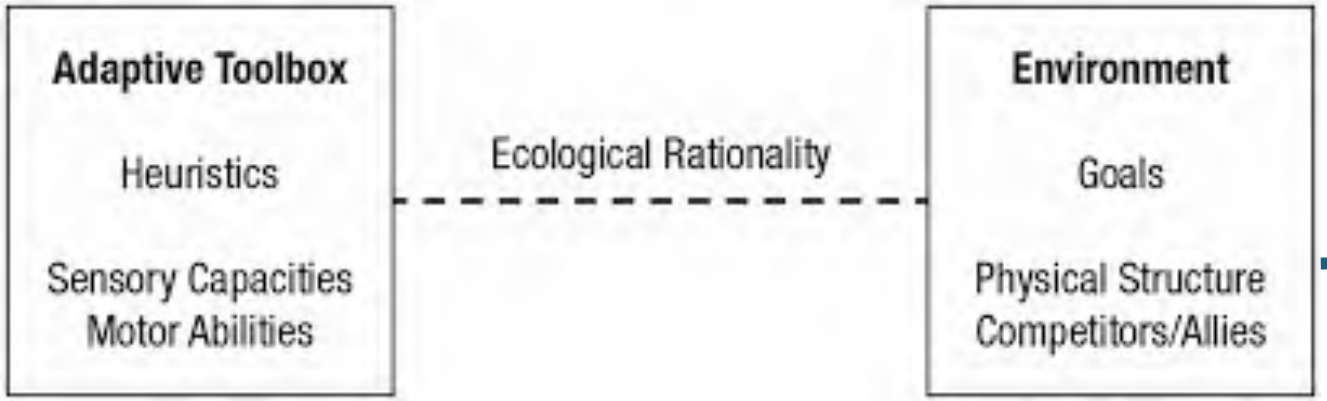
- Considers situations as a “game” which can be single decision points or multiple decisions and where there is at least one other player e.g. Chess or Monopoly. It is assumed that all players behave rationally.
- Decisions where the probabilities and outcomes are known are defined as decisions **under Risk** and the player can evaluate decision choices operating within Axiomatic Rationality.
- Initially, the on-event decision process was considered as a ***Decision Under Risk*** where the event manager (the decision-maker) has a high level of awareness of the likelihood of outcomes. On this basis, we could use game theory to construct a model for effective decision making. However, this approach fails to account for human behaviours.
- In practice, it is clear that this decision process is a ***Decision Under Uncertainty*** where the likelihood of outcomes is unknown and dependent on a range of variables.

Situational Judgement

- Simply, identifying and **selecting the most appropriate action** in a situation.
- But what if that is a highly complex situation with a **high level of risk** and **multiple stakeholders**?
- The nearest comparators are **military, emergency services and medical** scenarios. In these areas there are consistent and comprehensive professional standards and resources to train and rehearse.
- The events industry often borrows tools and approaches from these sectors (e.g. OODA (Boyd, 1976) cited in O'Toole (2021))
- Event managers **don't have time or resources** to rehearse other than perhaps table tops and scenario evaluation, but we are **experts at planning** and considering contingencies.
- Given the personal nature of this kind of decision-making, it is also easy for bias and noise to interfere with the interpretation of the situation and the efficacy of the solution (Kahnemann *et al*, 2021)

- Ad hoc, non-standardised
- Decisions under Uncertainty
- Multiple stakeholders
- High levels of risk
- Heuristics, non-axiomatic

This research seeks to optimise decision making on-event.

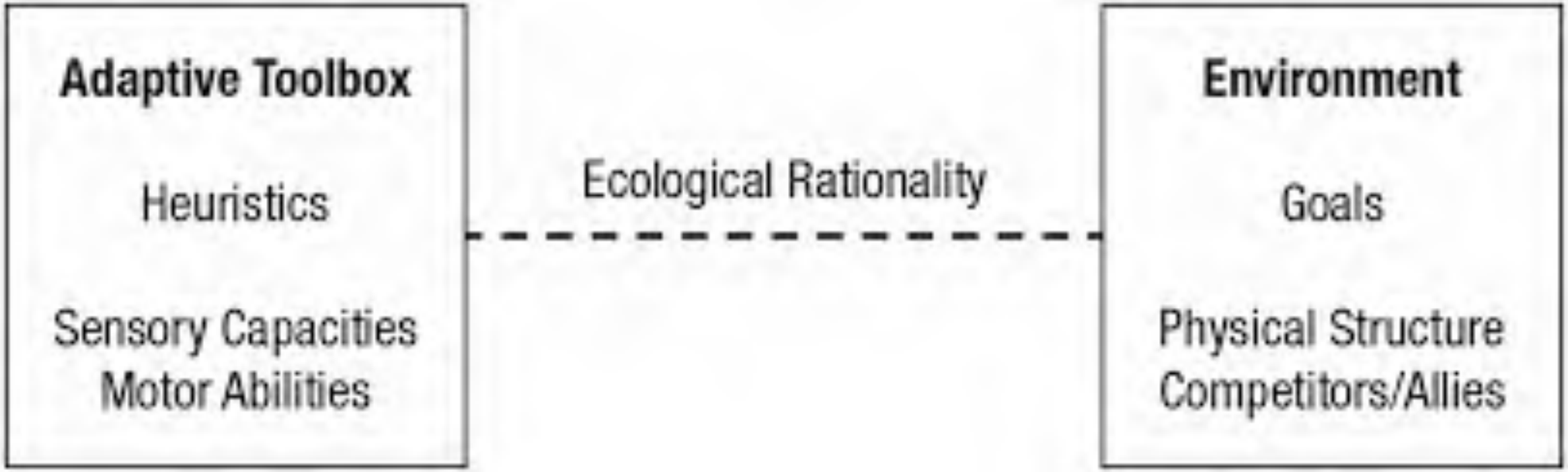


Gigerenzer & Todd, 2012

- Develop the descriptive model to **understand how these decisions are made**
- Evaluate against practice to **identify how the process can be improved**

Variables in Event Decision Making

Contextual	Causal	Consequential
• Strategic context • Organisational context • Stakeholders & Communications • Planning & preparedness • Training • Individual experience • Hygiene & motivation factors • Team • Professional standards	• Individual wellbeing • Time • Safety • Heuristics/constructs • Budget/ available resources • Contacts & information • Degree of perceived risk • Autonomy • Attitude to risk	• Contingency planning • Team capability • Communications • Resource elasticity



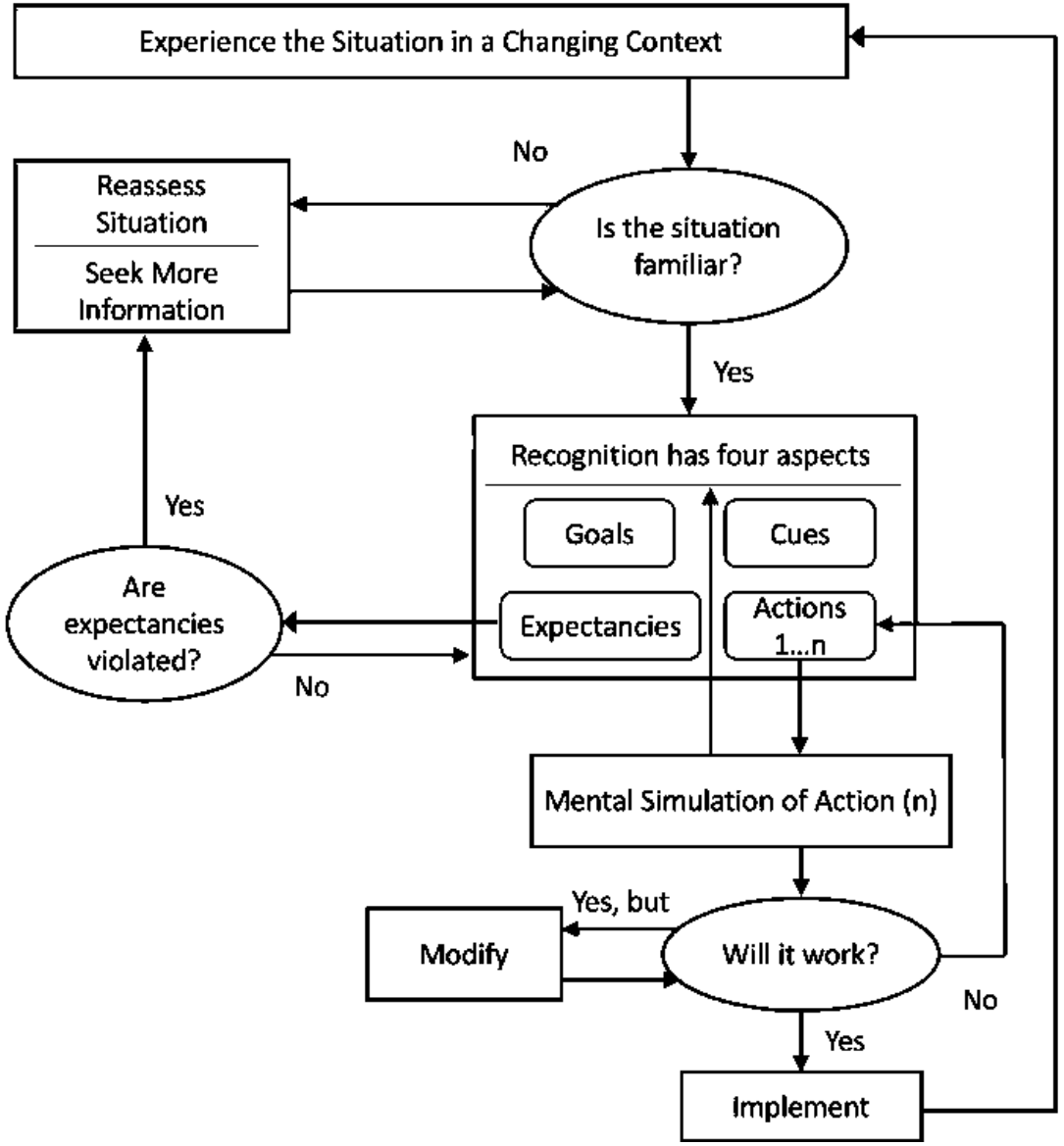
Ecological Rationality

- The concept that effective decision making is determined by the match between the individual and the environment of the situation.
- Applies to the on-event decision process as this model accommodates human factors, intuition and the scope and variability of the sector.
- Developed by Gigerenzer & Todd (2000), this model forms the basis of understanding the on-event decision.

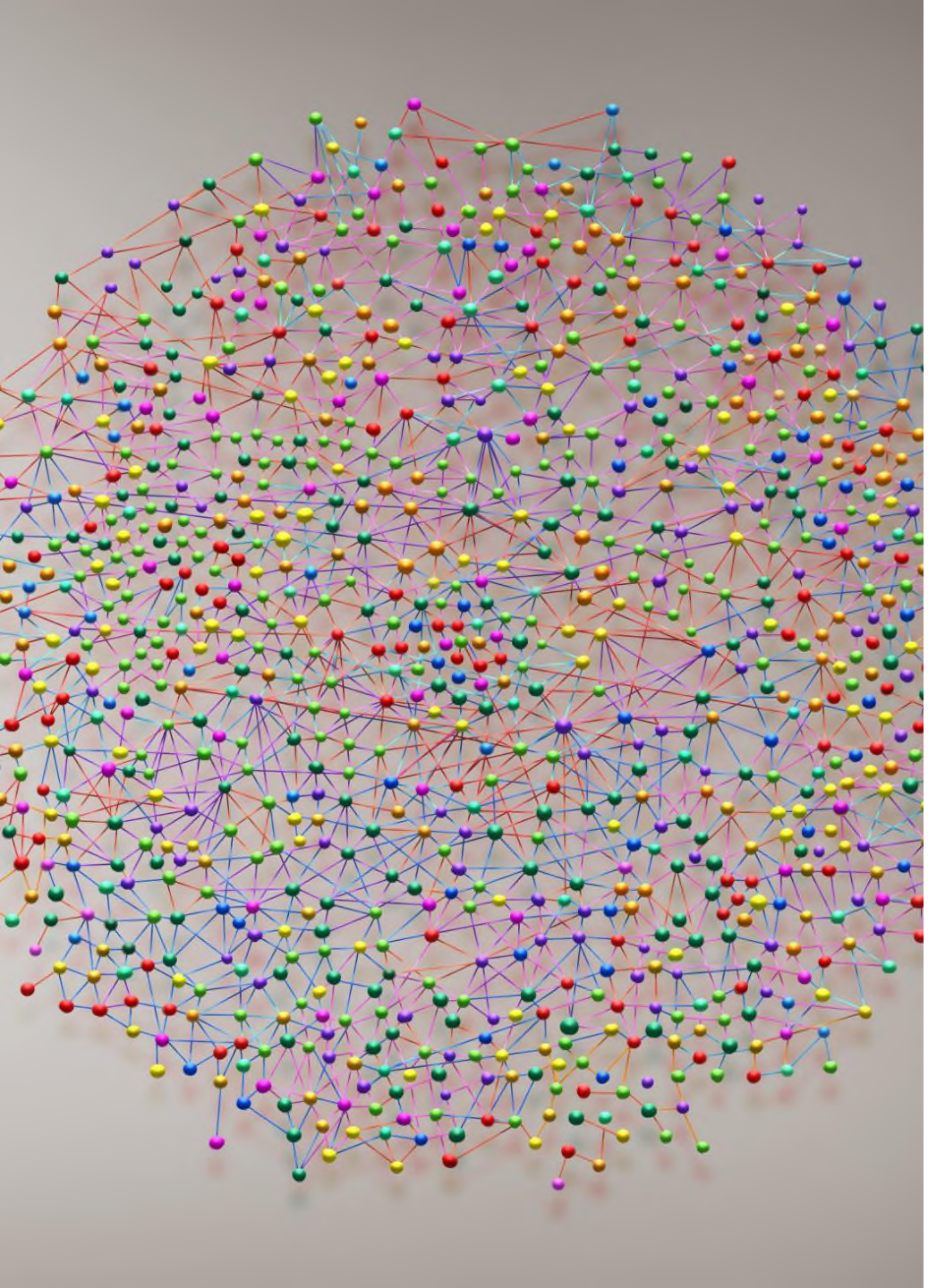
Effective on-event decisions

- From the Literature Review and research findings, it is evident that the most suitable match is related to the Recognition heuristic.
- Given the situational similarities to emergency services decision making, this research is using the **Recognition Primed Decision model** (Klein *et al*, 1993), shown here, which…
- Gives rise to **Hypothesis 2**: An adapted RPD model for events achieves a high level of Ecological Rationality and thereby:

effective on-event decision = F(RPDmodel)



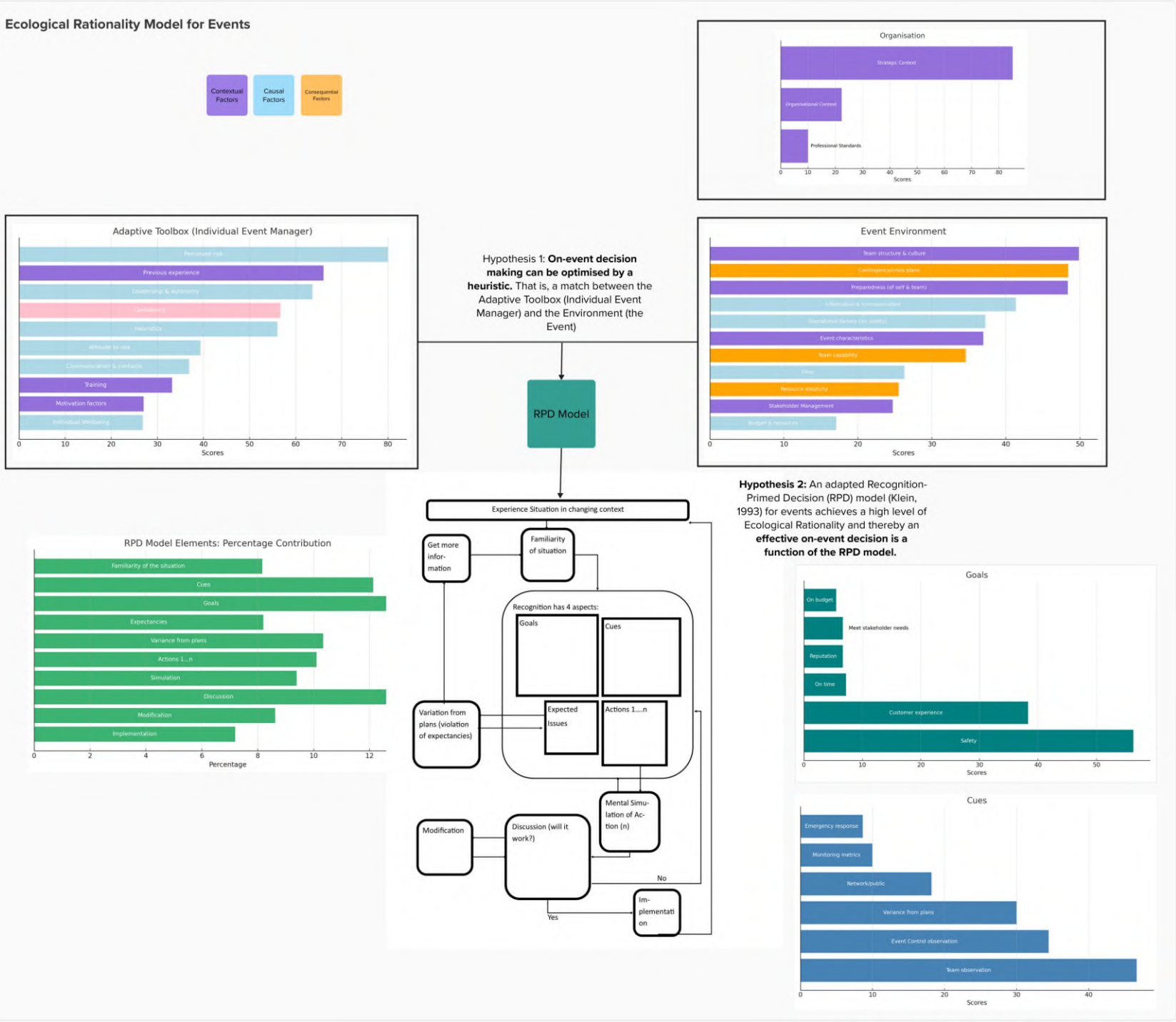
Klein, 1993



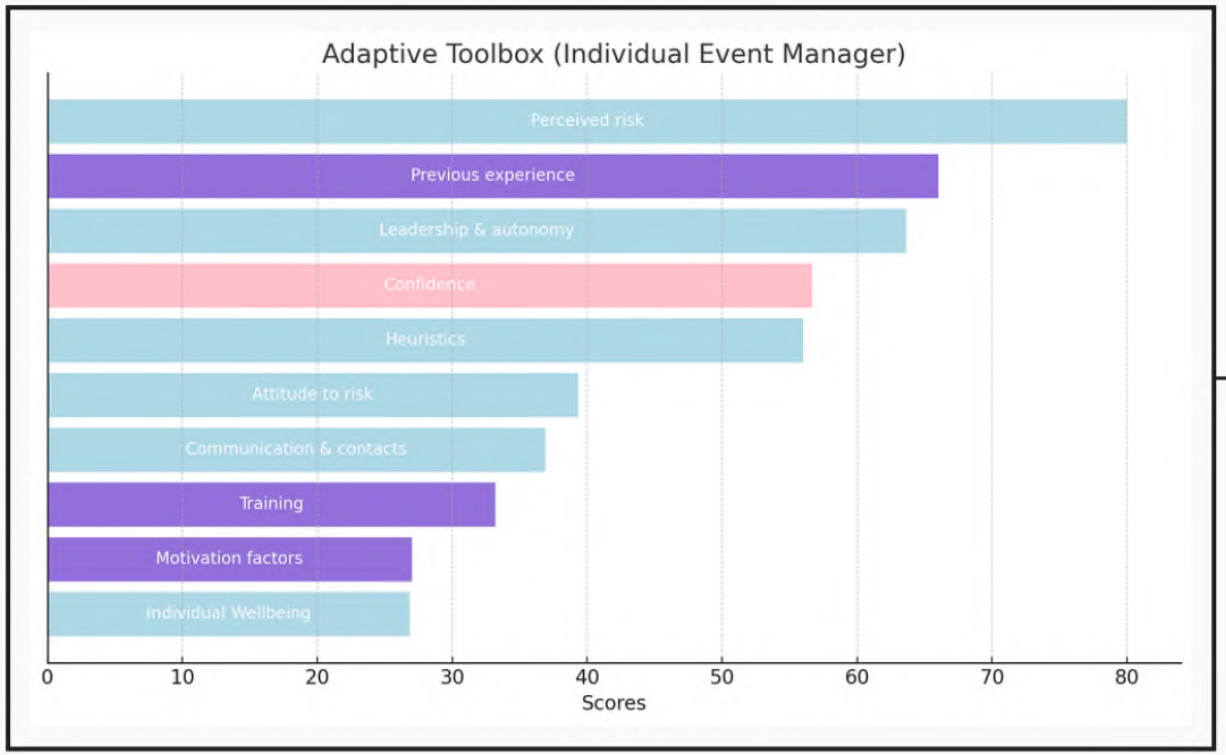
Variable Mapping

- Triangulation of data through mapping data inputs against variables in the ER model and the RPD model, drawing on Literature Review, statistical analysis, Policy Delphi and on-event observations
- Creating a balanced, weighted, adapted conceptual model identifying the priorities in the on-event decision process
- Using these priorities to form the basis of the framework to optimise decision-making

Conceptual Model



Adaptive Toolbox



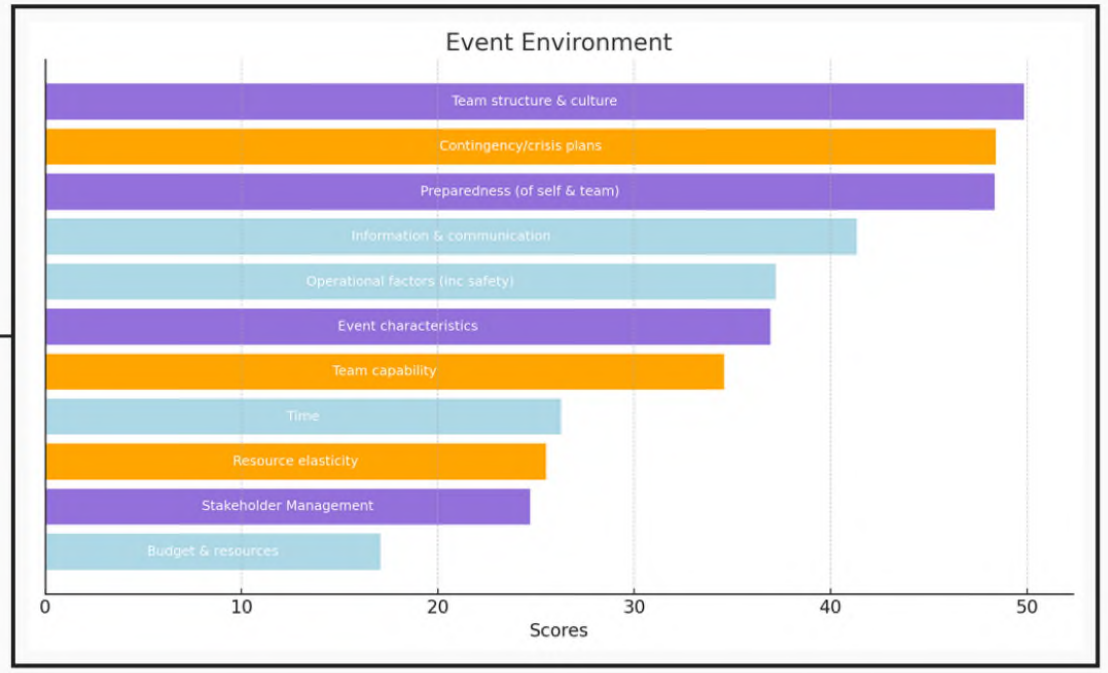
Hypothesis 1: **On-event decision making can be optimised by a heuristic.** That is, a match between the Adaptive Toolbox (Individual Event Manager) and the Environment (the Event)

RPD Model

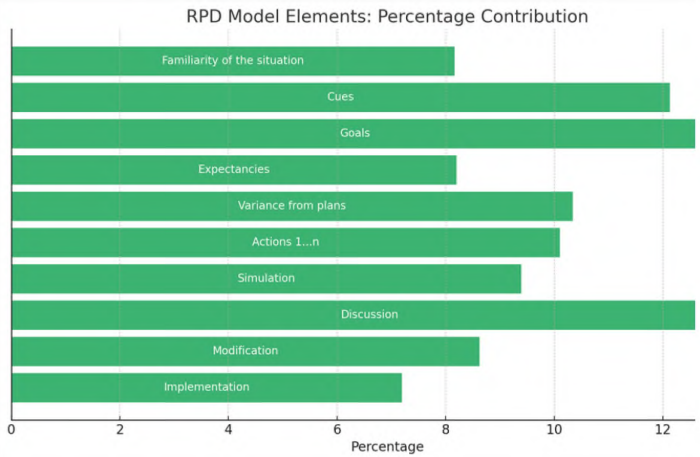
Event Environment

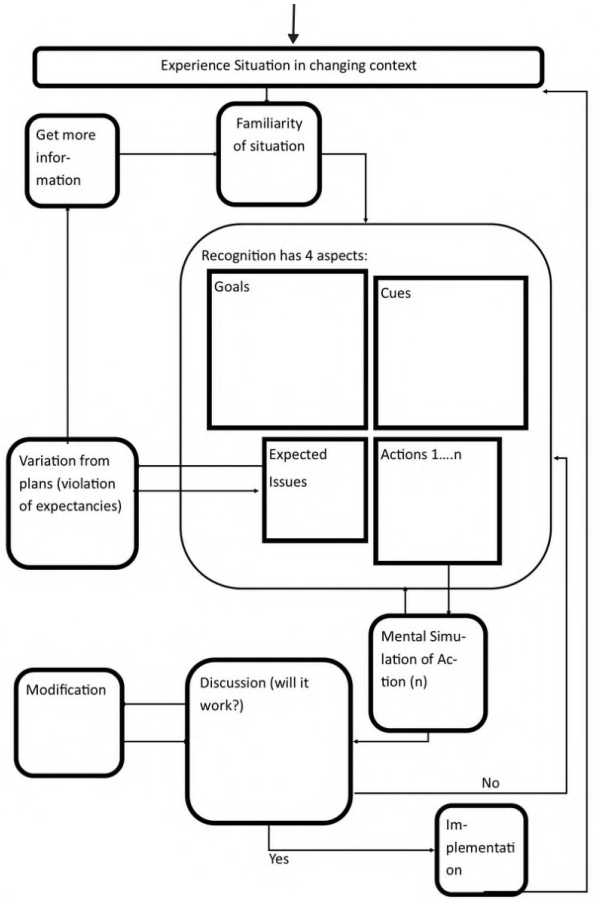
Hypothesis 1: **On-event decision making can be optimised by a heuristic.** That is, a match between the Adaptive Toolbox (Individual Event Manager) and the Environment (the Event)

RPD Model

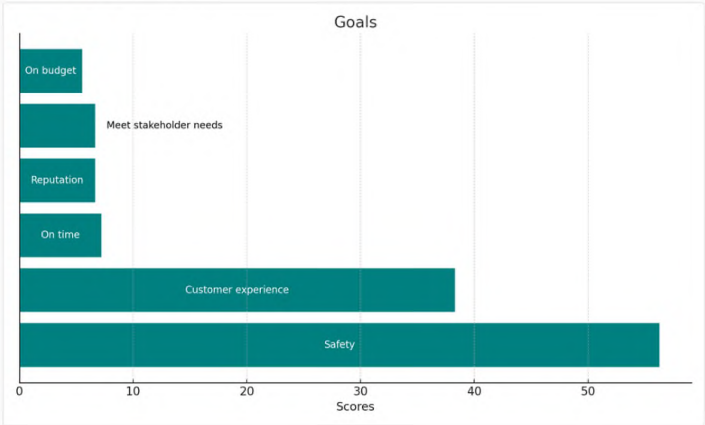


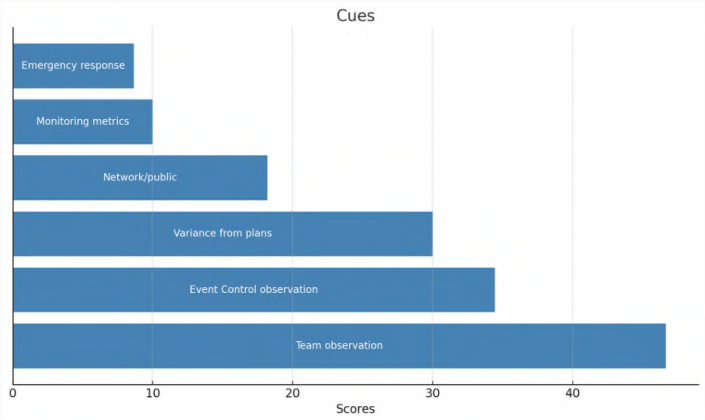
Adapted RPD Model





Hypothesis 2: An adapted Recognition-Primed Decision (RPD) model (Klein, 1993) for events achieves a high level of Ecological Rationality and thereby an **effective on-event decision is a function of the RPD model.**





Key Findings

Risk is evaluated accurately on average, but not necessarily consistently

Perception of risk is based on event characteristics, not personal impact

Events are a team game

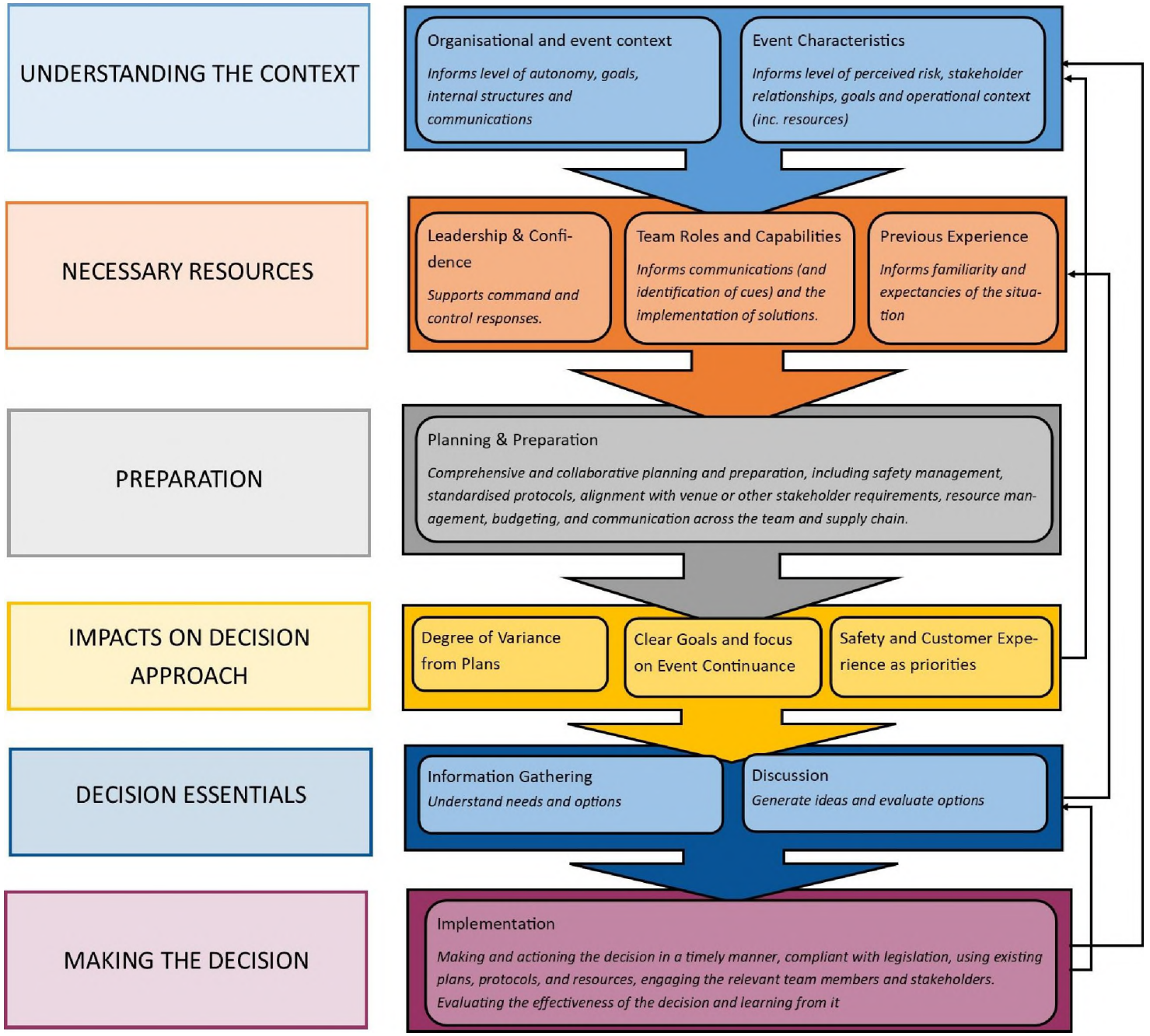
Preparation of plans, team and self is essential

Previous experience leads to familiarity which enables

Safety is always a priority in decision-making, followed by Customer Experience

The strategic and organisational context is a significant influence on the efficacy of the decision process

Framework


UNDERSTANDING THE CONTEXT
Organisational and event context
Informs level of autonomy, goals, internal structures and communications
Event Characteristics
Informs level of perceived risk, stakeholder relationships, goals and operational context (inc. resources)
NECESSARY RESOURCES
Leadership & Confi-dence
Supports command and control responses.
Team Roles and Capabilities
Informs communications (and identification of cues) and the implementation of solutions.
Previous Experience
Informs familiarity and expectancies of the situa-tion
PREPARATION
Planning & Preparation
Comprehensive and collaborative planning and preparation, including safety management, standardised protocols, alignment with venue or other stakeholder requirements, resource man-agement, budgeting, and communication across the team and supply chain.
IMPACTS ON DECISION APPROACH
Degree of Variance from Plans
Clear Goals and focus on Event Continuance
Safety and Customer Expe-rience as priorities
DECISION ESSENTIALS
Information Gathering
Understand needs and options
Discussion
Generate ideas and evaluate options
MAKING THE DECISION
Implementation
Making and actioning the decision in a timely manner, compliant with legislation, using existing plans, protocols, and resources, engaging the relevant team members and stakeholders. Evaluating the effectiveness of the decision and learning from it

And in the classroom...

- Live Event Projects
- Event Control Simulation
- Developing Risk Tolerance

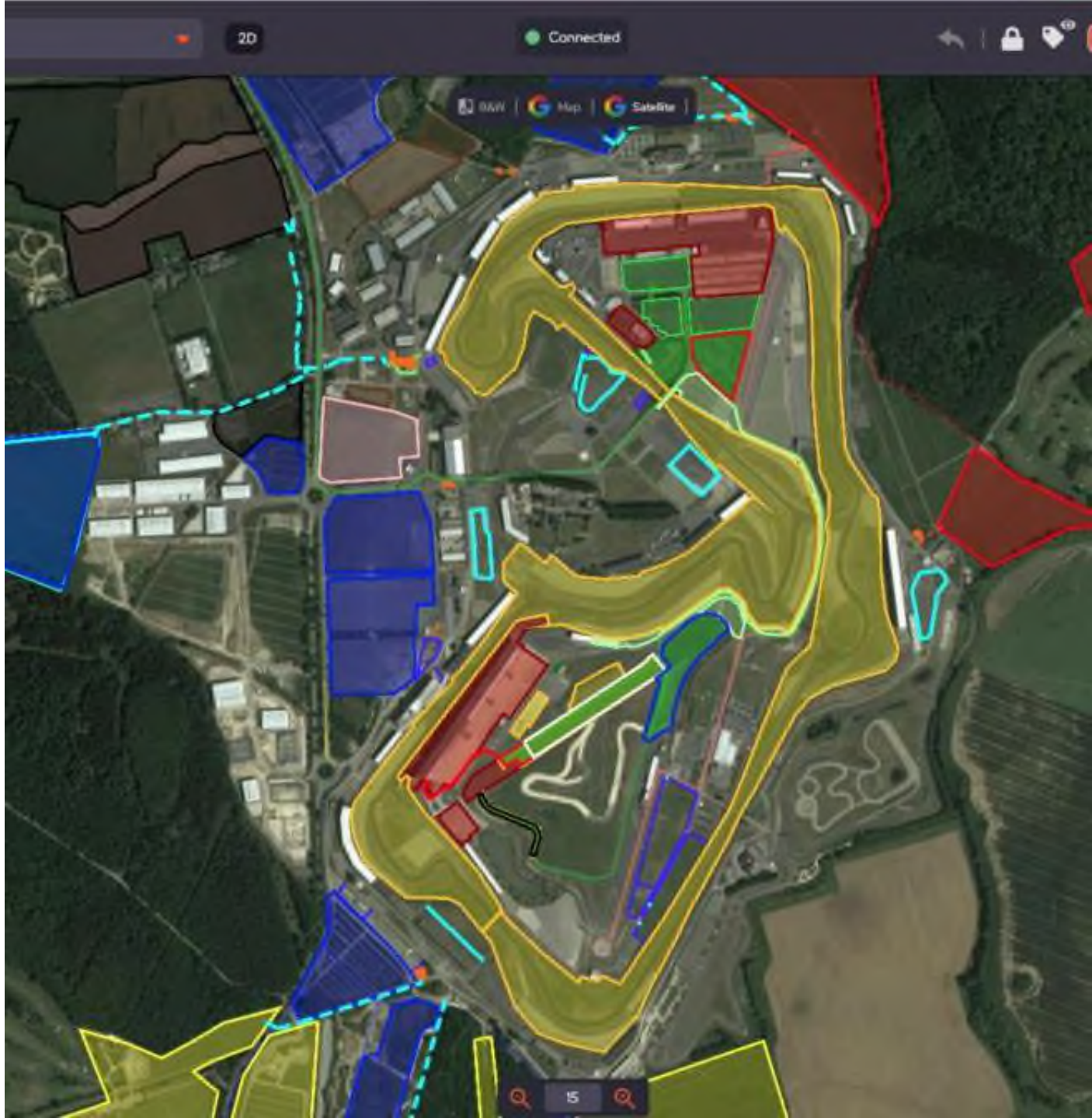


Image: OnePlan map for Silverstone Circuit

Operation Nexus at Silverstone

Learning & Teaching Innovation Fund Project

(Understanding Risk)

What we planned

2.5hr event simulation – the Nexus Festival

- Running Event Control for a multi-strand festival at Silverstone
- It was a really bad day at the track! Crowd surges, fire, protestors, bins overflowing, vehicle collision, toilets needing cleaning, unhappy traders, assaults, awful weather, access issues…
- Based on decision-making research

2.5hr investigation simulation

- Investigation into what happened during the Nexus Festival from three perspectives – Policing, Corporate Risk and Public Safety
- Added in detail to the event log, interviews and wider research to reach conclusions on responsibilities and accountability
- Provided context for core investigation approaches

What happened

6 events management students; 8 CJS students

3 preparatory sessions for Events students – advance visit to Silverstone, review of documentation and table top exercise

Nexus Festival on 3 April – event simulation in Event Control, overlapping with the investigation simulation

De-brief and feedback meetings in April and May.

Experiential Learning

Creating a valuable learning experience beyond the classroom

Engagement in different ways

- Applying risk knowledge and related course content in practice
- Kolb's learning cycle
- Enabling neurodiverse students to thrive

"As real"

- Being at Silverstone "raised the bar"
- Using professional standard documentation and processes
- Based on incidents from live event observations at Silverstone
- Based on project collaborators' experience and practice

Skill Development

Enabling dark-art skill development (around decision-making and situational application of knowledge) using the Framework

Building confidence

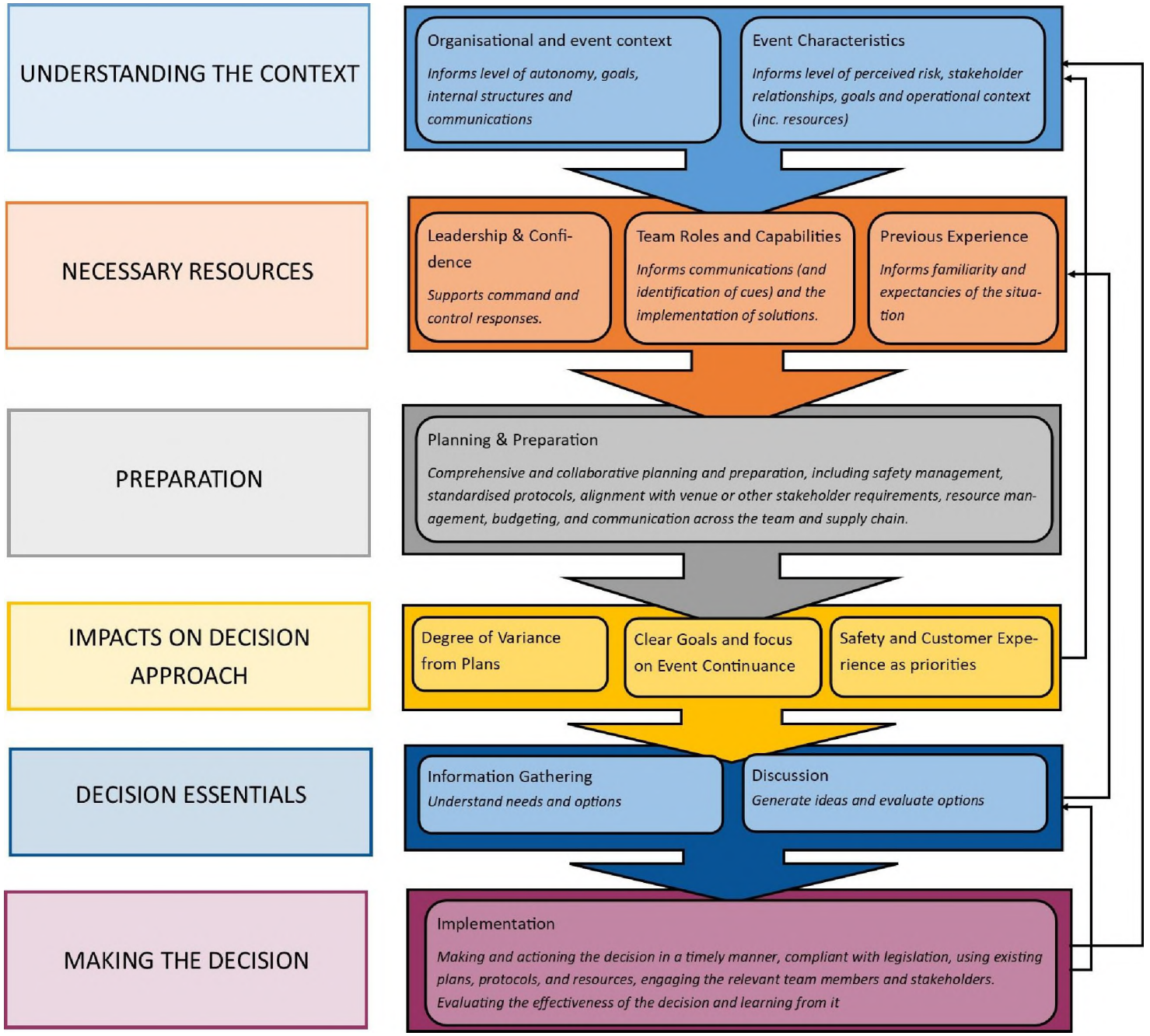
Developing communication skills, particularly within a new team

Using real-world tools in anger

Application of theory and learning to practice

Deepening understanding of self

Framework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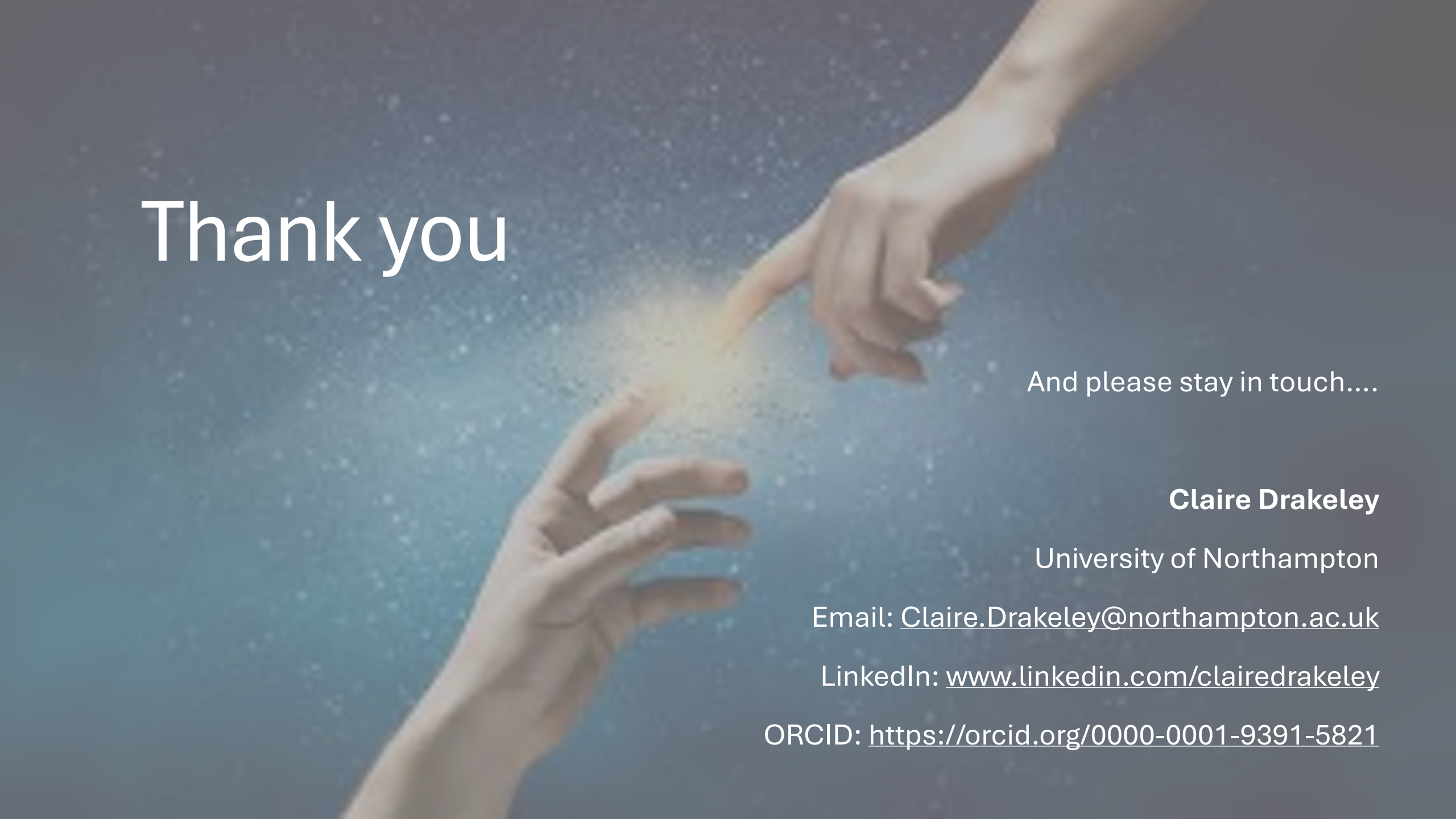
Why is this important?

WE NEED TO MAKE BETTER DECISIONS.



Thank you

And please stay in touch....

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REIMAGINING EDUCATION

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UNIVERSITY OF WESTMINSTER | CENTRE FOR EDUCATION AND TEACHING INNOVATION

So, What does a Sustainability Consultant actually do?

Designing an authentic sustainability consulting module

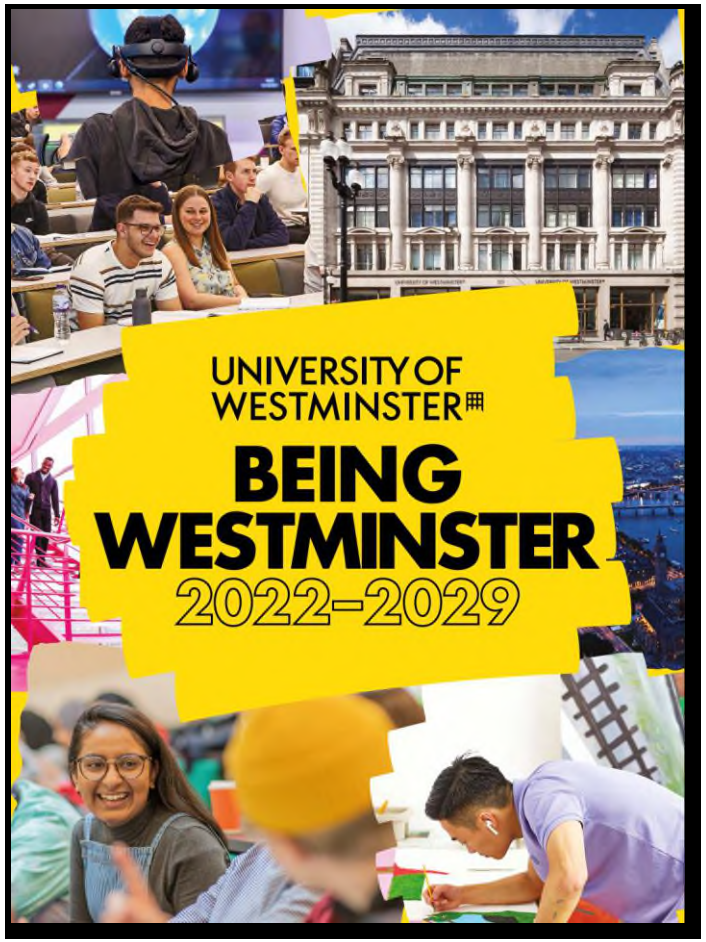
Yasmin Kulasi & Dain Robinson

June 2025 King's College London

- The context and background
- Aligning to our Education Strategy
- The exam question
- How the module was developed
- Third space pedagogy: Bridging academia, practice & inclusion
- Creating the third space
- Module overview
- The weekly breakdown
- The module assessments
- Key consulting competencies

The context and background

The University of Westminster is based in Central London with over 60% of students from BAME backgrounds.



UNIVERSITY OF WESTMINSTER

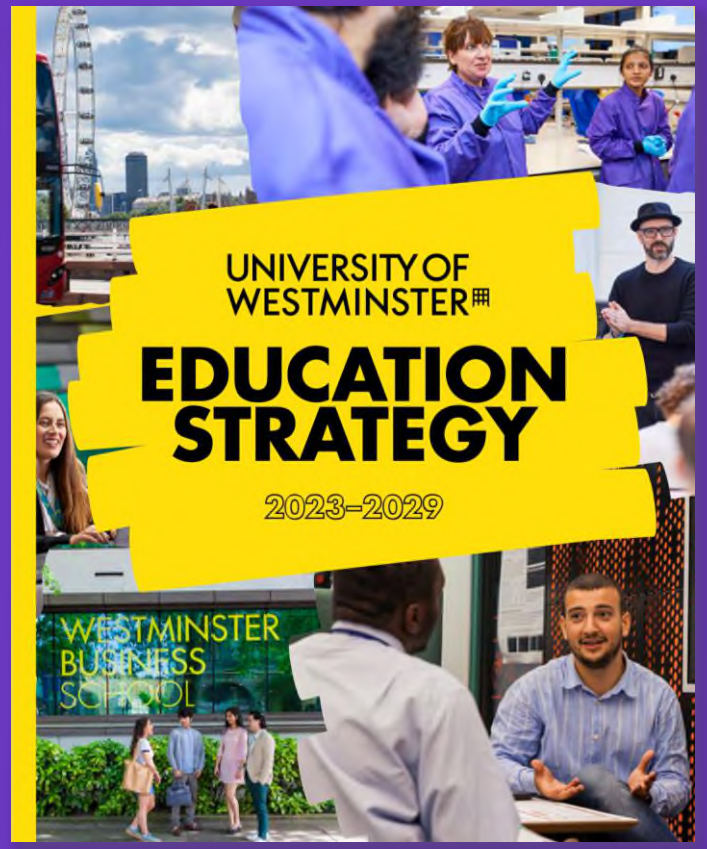
Vision:
Our University is a place where discoveries are made, barriers are broken, **diversity is celebrated** and where everyone is welcome.

Our people stand out as significant contributors to their communities – through their innovation, enterprise and problem-solving – seeking to make the world a more **sustainable**, healthier and better place.

Mission:
To help students and colleagues from **different backgrounds fulfil their potential** and contribute to a more **sustainable**, equitable and healthier society.

Aligning to our Education Strategy

The University's current Education Strategy shows strong commitments to ESD and Authentic learning.



Authentic Learning

- ✓***Engaging students in the construction of knowledge for wider benefit e.g. the UN Sustainable Development Goals***
- ✓*Experiential, active and discursive modes of delivery on all courses, including* ***accessible, varied, authentic and inclusive*** *means of assessment*
- ✓***A learning environment and professional development that supports authentic and active learning***
- ✓*Clear pathways that enable all students to develop capabilities for employability, the workplace, lifelong learning and their future role in communities*
- ✓*Demolishing walls between disciplines and enabling creative co-delivery*

How can we create a sustainability module with a strong focus on professional & leadership development for UG students?

Key criteria:

- ✓ Be accessible for any and all students
- ✓ Focus on practice, over theory of Sustainability
- ✓ Design co-creative and collaborative assessments for students
- ✓ Simulate a professional consulting experience
- ✓ Use authentic learning methodologies, embodying the “third-space”[1]
- ✓ Embed partner-engaged and service-learning methodologies to support local knowledge exchange

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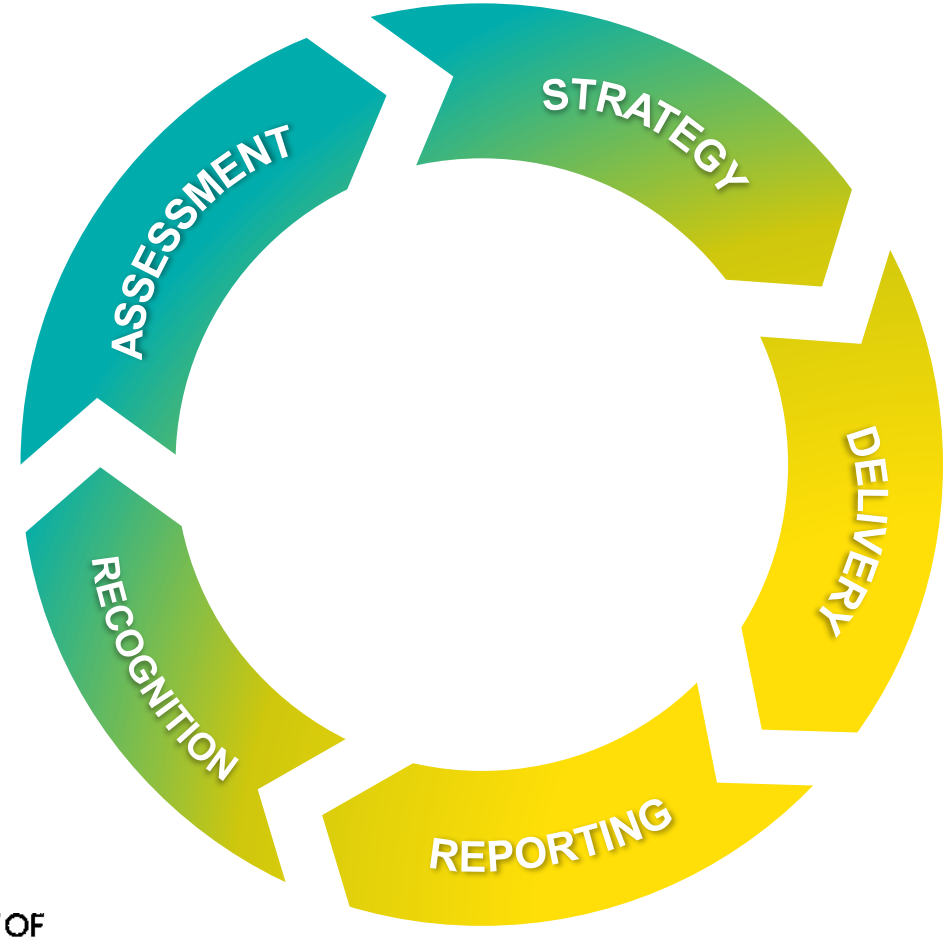
[1]Pitchford, A., Owen, D., Stevens, E. (2020). A Handbook for Authentic Learning in Higher Education: Transformational Learning Through Real World Experiences

What is sustainability consulting?

While specific client offerings differ across consulting firms, the main features of sustainability consulting as well as its areas of support remain consistent to provide clients with end-to-end services that align with demand and regulatory drivers.



Common topic areas of corporate sustainability:

- Climate action
- Biodiversity & ecosystem services
- Environmental management
- Supply chain & procurement
- Finance & investment
- Corporate social responsibility
- Governance & reporting
- Circular economy
- Innovation & technology
- Stakeholder engagement

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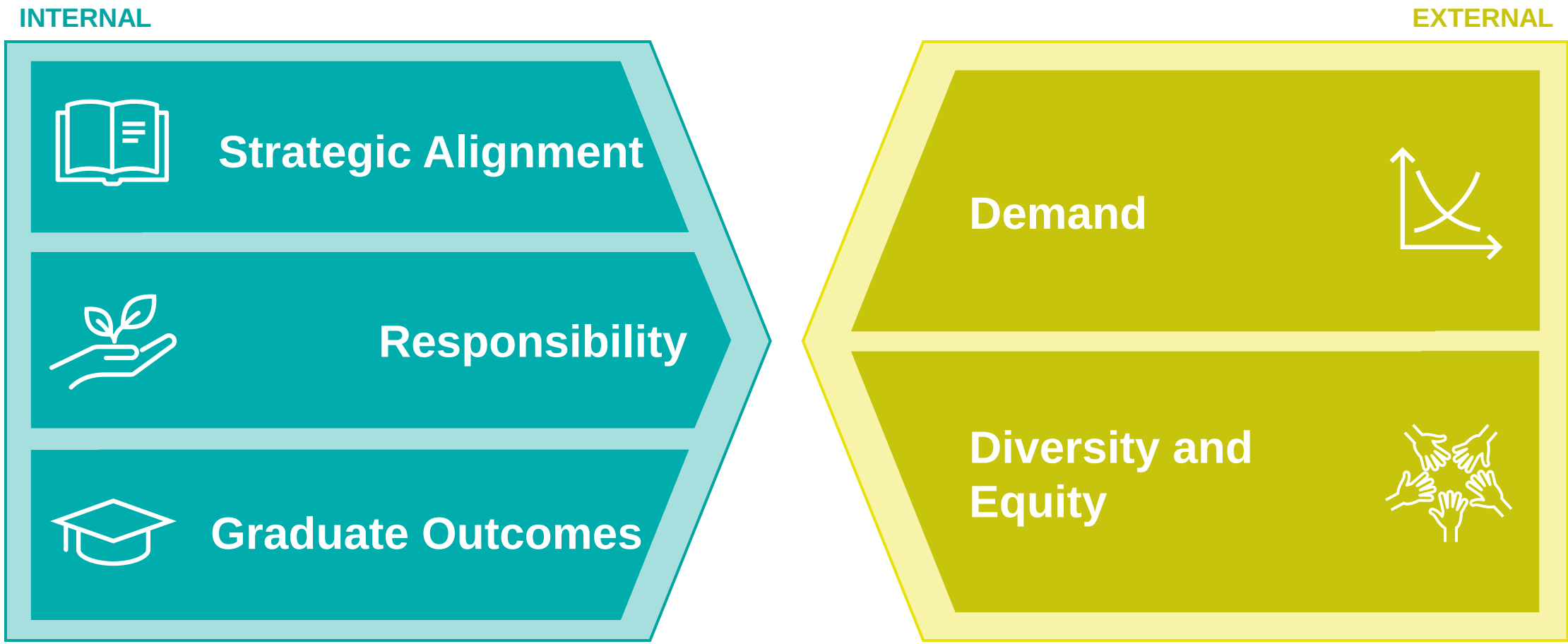
Why sustainability consulting?

Various internal and external drivers informed the development of this module.



How the module was developed

The module was designed via three discrete phases.

Phase 1: Initiation & Research

The primary focus for the first phase of the project was to **understand the current baseline** of ESD activities across the University to **identify key internal stakeholders** and **existing best practice**. Desk-based research was also carried out on ESD activities across the sector.

Phase 2: Stakeholder Engagement

Phase 2 focused on **engaging with key stakeholders** to further understand current best practice, challenges, and opportunities across the University. The engagement activities were held as 1-2-1 and group interviews.

Phase 3: Definition & Planning

The final phase brought together the findings from phases 1 and 2, to **design and develop** an innovative module focusing on sustainability consulting.

An **implementation plan** and **change management plan** was also delivered.

Third space pedagogy: bridging academia, practice & inclusion

Academic works which influenced our approach

‘Third Space’ – Origins in Cultural Theory (Bhabha, 1994)

Adapted to learning contexts (Gutierrez, 1999)

Horizontal vs Vertical Learning (Gutierrez, 2008)

Boundary crossing & Professional Knowledge - Akkerman & Bakker (2011) Zeichner, K. (2010)

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Pitchford, A., Owen, D., Stevens, E. (2020). A Handbook for Authentic Learning in Higher Education: Transformational Learning Through Real World Experiences

Gutiérrez, K. D., Baquedano-López, P., & Tejada, C. (1999). *“Rethinking diversity: Hybridity and hybrid language practices in the Third Space*

Third space pedagogy: bridging academia, practice & inclusion

Key concepts to bring the third space to life.


Blurring boundaries between theory and practice


Cross-Functional Collaboration and Boundary-Spanners


Students as Co-Creators of Knowledge


Employability Through Authentic Learning


Inclusive and Culturally Responsive Pedagogy


Bridging Students into Professional Communities

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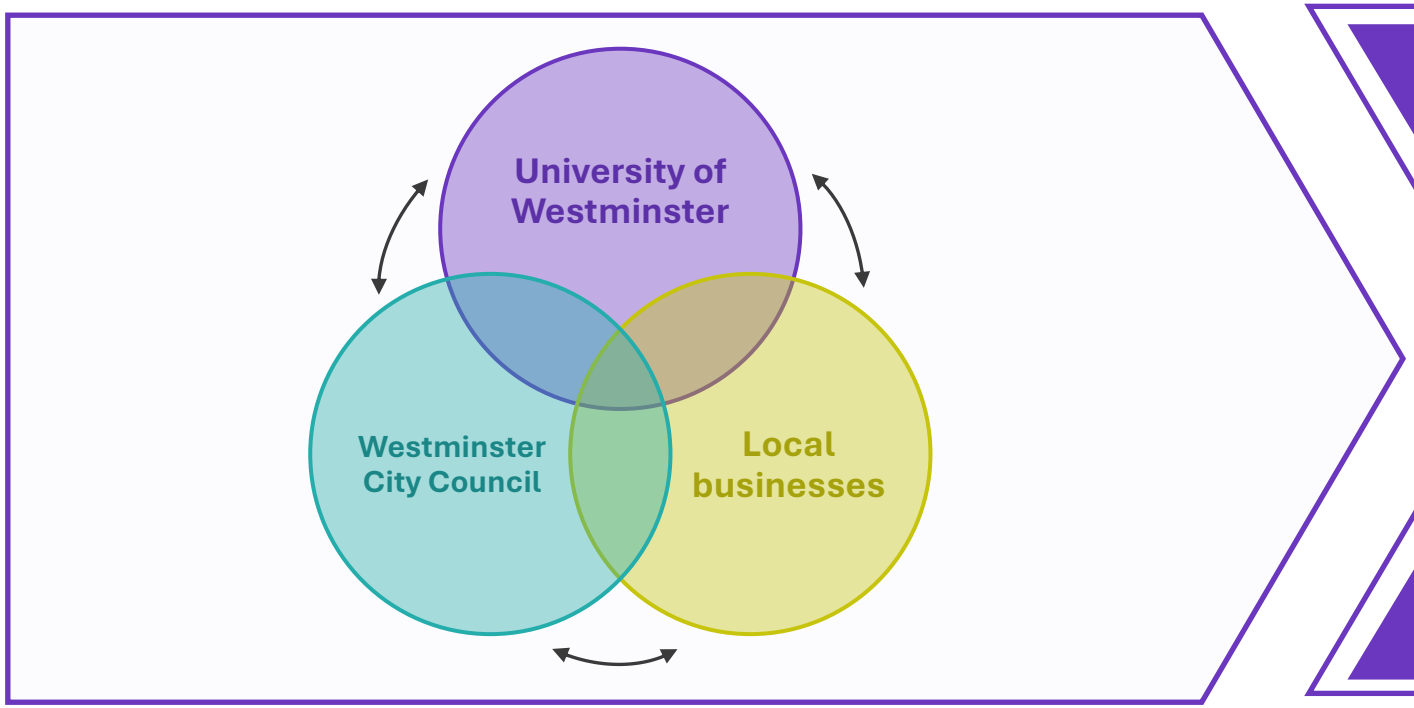
Creating the third-space

The module has been designed to benefit not only our students but also local SMEs and Westminster City Council, in alignment with its Sustainable City Charter.



Benefits for local SMEs

- Recommended targets meet the SCC's requirements
- Recommendations on short, medium and long term actions
- Methods for collecting and measuring data to track progress

Benefits for Westminster City Council

- Networking opportunities and access to support from Westminster City Council as a signatory
- Access to a broader range of business consulting support from our students

The Pedagogical Thinking

This module draws on various pedagogical models to provide our students with comprehensive and authentic learning opportunities which closely resembles the management consulting experience.

Authentic learning

An experience that it is situated in or corresponds to the ‘real world’ (Kreber, 2013). Pitchford et al, (2021) interpret this as going beyond the campus walls

Newmann et al. (2007) and Herrington & Herrington's (2006) work emphasise:

- Originality in constructing knowledge
- Value beyond academia.
- Experiential rather than abstract learning.
- Mutual benefit for both students and recipients of knowledge

Service learning (Furco, 1996)

Combines classroom learning, service activities & critical reflection
Service learning projects rooted in needs of local community (Pitchford et al 2021), well integrated in USA

Reflective learning

Collaborative learning

The weekly breakdown

The four hours of scheduled weekly sessions across twelve weeks have been broken down into two, two-hour weekly sessions.

Session 1

Lecture, group playback and discussions

Tutorial / practical sessions

Session 2

Guest lectures / interview or fieldtrip

Group work and self reflections

Each week we will bring the outside, in, for our students to connect with and hear from industry professionals, alumni, leadership coaches, consultants, sustainability leaders, and the Westminster City Council.

CARBON TRUST ARUP Deloitte. City of Westminster BELU accenture

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The module assessments

The assessments in this module heavily involves group working, as well as personal reflections to closely simulate a management consulting experience for our students.

Consulting Development Journal

- Critical reflection and analysis Learning from challenges
- Assess effectiveness of expectations
- Learning from risks and failures

Client deliverables

- Stakeholder relationship development and management
- Client industry research
- Visual articulation of research according to consulting expectations

Presentation

- Distillation and articulation of research outputs
- Oral and visual presenting
- Ability to respond to unexpected stakeholder questions

Professional Practice

- Team work and collaboration
- Leadership development
- Personal professional development

The module assessments

The assessments in this module heavily involves group working, as well as personal reflections to closely simulate a management consulting experience for our students.

Group work

Students will be working in teams of 4-6 individuals across the entirety of the 12 weeks. The teams will be working with a local business to support their Sustainability journey by:

- Setting sustainability targets against themes set out by Westminster City Council to increase sustainable action amongst businesses
- Providing short, medium and long terms actions that can be taken to meet the targets
- Data collection and tracking methods for measuring and monitoring progress against the targets

The teams will also carry out weekly group reflections using retrospective methodologies found in Agile[1] and Scrum[2] frameworks. This will be a guided and structured weekly exercise to encourage teams to improve communication, collaboration and overall performance.

Personal reflections

Each week, students will write a reflective journal on their week's learnings and performance. Weekly on-time submission of the reflections as well as overall quality of the reflections will be assessed.

Students will be provided with specific questions to guide their reflective thinking also using retrospective methodologies found in Agile[1] and Scrum[2] frameworks:

- What went well?
- What didn't go well?
- What are the opportunities or ideas for the future?
- What are the actions we can take for future improvements?

1. https://agile.2ia.net/Agile%20Retrospectives.pdf'
2. https://scrumguides.org/docs/scrumguide/v2020/2020-Scrum-Guide-US.pdf#zoom=100

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Key Consulting Competencies

- Consulting & Client Management
- Leadership & Collaboration
- Critical Thinking & Problem Solving
- Professional Communication
- Reflection & Self-Development
- Civic & Ethical Responsibility

Thank you

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Dain Robinson: dain.robinson@inclusivesustainability.co.uk

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Pitchford, A., Owen, D., & Stevens, E. (2020). *A Handbook for Authentic Learning in Higher Education: Transformational Learning Through Real World Experiences*. London: Routledge. – (Comprehensive resource on designing authentic, real-world learning in HE. Provides frameworks and case studies – including consulting projects and interdisciplinary initiatives – illustrating Third Space principles in curriculum design).

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Enhancing student engagement through Vygotskian inquiry-based learning

Dr An Nguyen & Dr Canh Dang (KCL)

The project is generously funded by the Innovate Education Fund, KCL

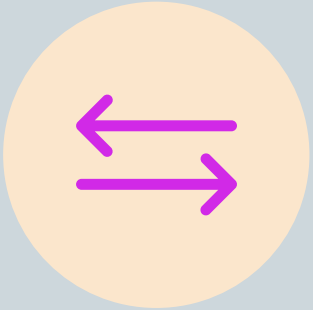
Overview

Context and challenges

What are the steps?

How is it going?

Academic Essay Competition and Undergraduate Journal



Scholarship Research

Sociocultural learning theory and a three-step intervention

Take-away and Discussion

Understanding Challenges

Plagiarism

Uncredited use of someone else's work or ideas.

Cheating and Unethical Behavior

Act of deceit or dishonesty in an academic environment.

Unacceptable conduct that violates academic standards.

Engaging undergraduates in research beyond RAs

Most are industry/career-oriented

Researched-oriented student activities

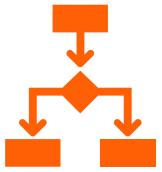
Research-led teaching but little on research-led learning at undergraduate level

Photos credit to Pexels

Promoting Student Engagement

Integrity Development

Contributes to the development of ethical behavior and academic integrity.



Enhanced Learning Outcomes

Engaging in research enhances critical thinking and analytical skills.

Academic Growth

Stimulates academic growth and fosters a deeper understanding of subjects.

A scoping Review: Structural gaps in undergraduate research

Scope: 43 institutions, 267 Business and Management programmes

Dissertations

54% required

Strongest in Marketing (73%), weakest in Accounting (52%)

Student journals

Only **9 institutions** had formal, peer-reviewed journals

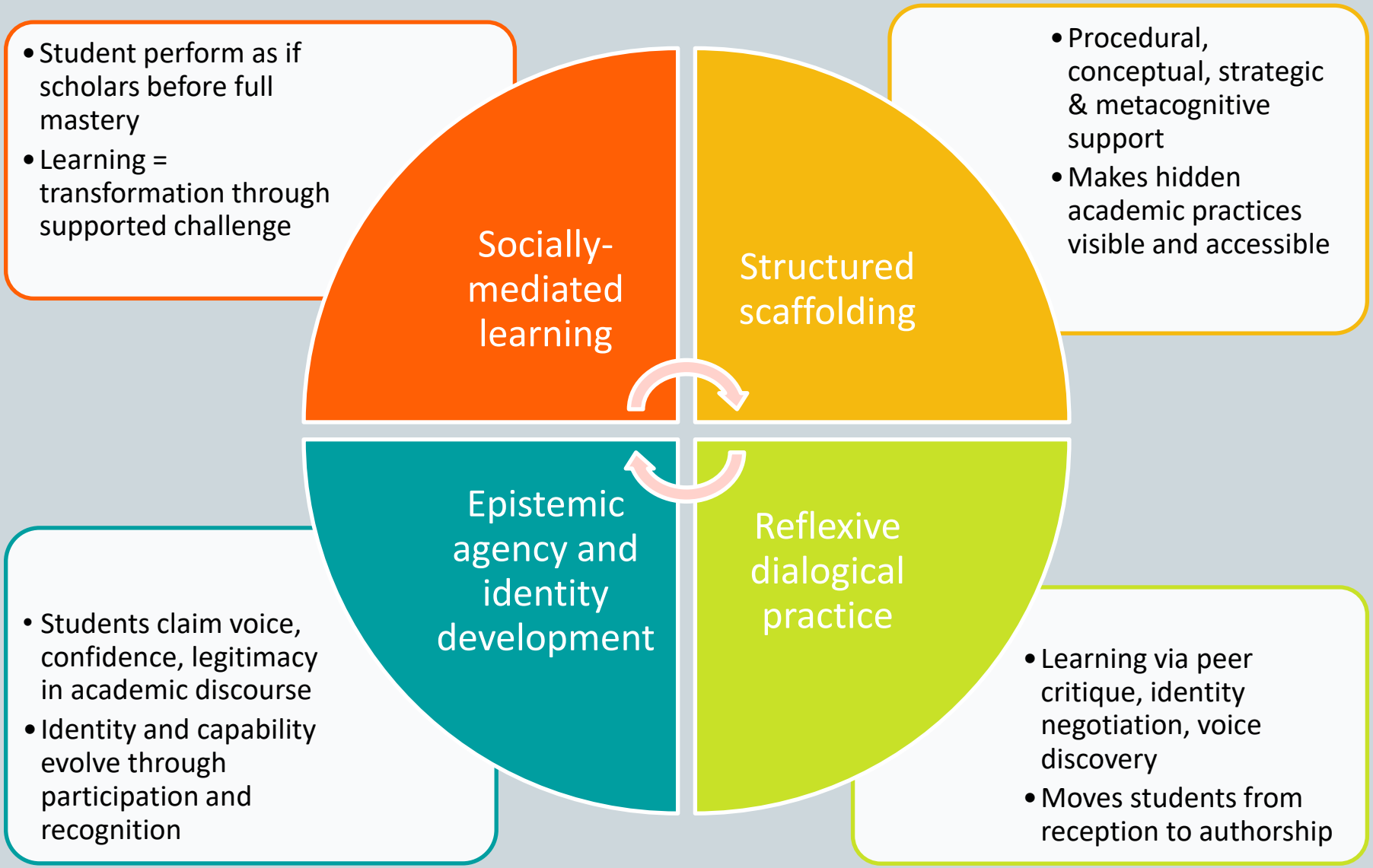
RG journals had **editorial mentorship**; P92 offered informal blogs or portfolios

Funded research schemes

10 RG offered UROPs/Laidlaw

0 P92 had funded schemes → severe access disparity

Vygotsky's socio-cultural learning theory



Action Research Design

Context: Diverse, multilingual student body (80%+ non-native speakers) with limited research experience

Approach: Action Research = intervention + theorisation + institutional responsiveness

Philosophy: Constructivist, socially mediated, and **co-produced knowledge**

The Intervention: Structure & Activities

Essay Competition (launched 2022, annual)

- 2,000-word limit; focused on global issues (AI, trade, sustainability)
- Judged competitively; prizes awarded at multiple levels

Academic Skills Workshops

- Topics: research design, argumentation, structure
- Tools: visual aids (e.g. thesis maps), peer feedback
- Designed to support multilingual & early-career students

Research Career Panel

- Demystified academic pathways
- Fostered aspirational thinking and professional development

Student-Led Journal

- Roles: editors, reviewers, curators of themed issues
- Activities: public events, peer review, editorial debates
- Mentored by faculty; built epistemic agency and identity

Iterative design

- Iterative feedback and refinement

Step 1. Start with a Theme

- What would interest **YOUR** students?
- Which topic would be most inclusive and also academically relevant to your school?
- KCL Research Agenda, KBS 2020 Vision, and Academic Interest (for Business students)

King's Business School Essay Competition 2024/2025

Welcome to

The 3rd King's Business School Essay Competition

Tariffs, Trade War, and the Economy

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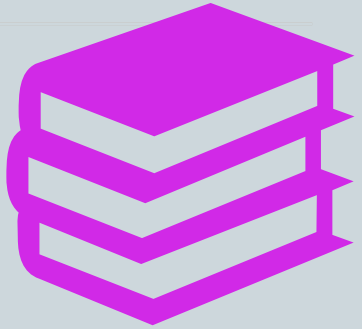
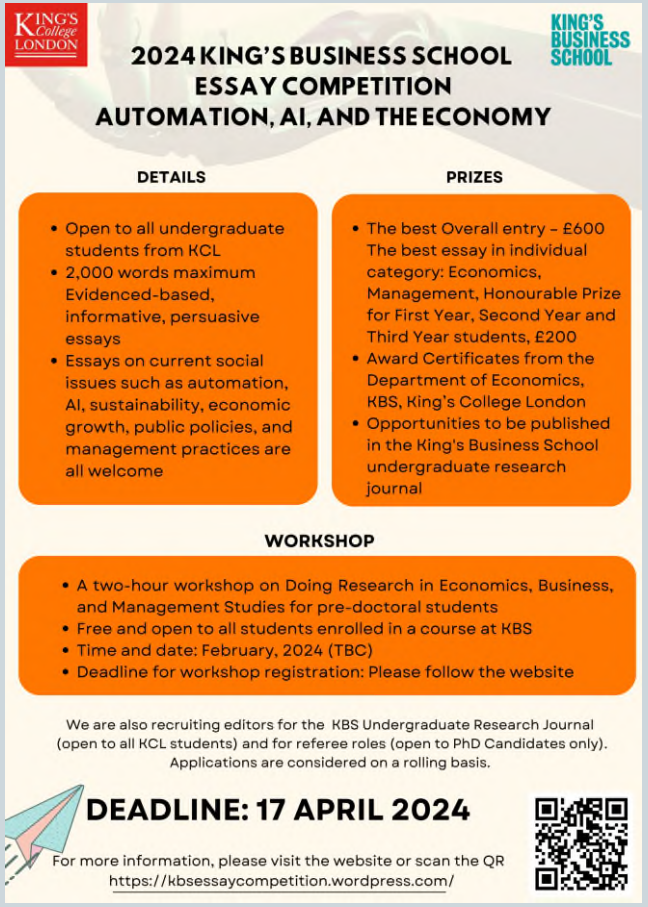
Step 2. Funding and Institutional Support



- Internal educational funds, support from HoD and Vice Dean (Education)
  - **Apply for IEF in November 2022, but discussions since Sep 2022.**
  - Funding for organisational cost, prize moneys, referees (markers) compensation (PhD candidates at least)
  - set-up cost for the journal, running cost for the journal (volunteer)
  - Long-term view: self-sustained via commercial sponsorship?

Step 3. Setting up and Promotion

- Posters, in lecture promotions, words of mouth, emails (constantly), newsletters, personal tutor meetings, and emails and newsletters …



The Editorial Team and 2024 activities

The Journal

LIST OF CONTRIBUTORS

The Journal

LIST OF CONTRIBUTORS

Volume II – YEAR 2024/25

Nicole Lim Re Gin
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Economics Section Editor

Pia Gupta
Finance & Business Section Editor

Economics Deputy Section Editor

Jasmine Surif
Creative Lead

Management Section Editor

Nastasia Wittig
Political & Development Economics Section Editor

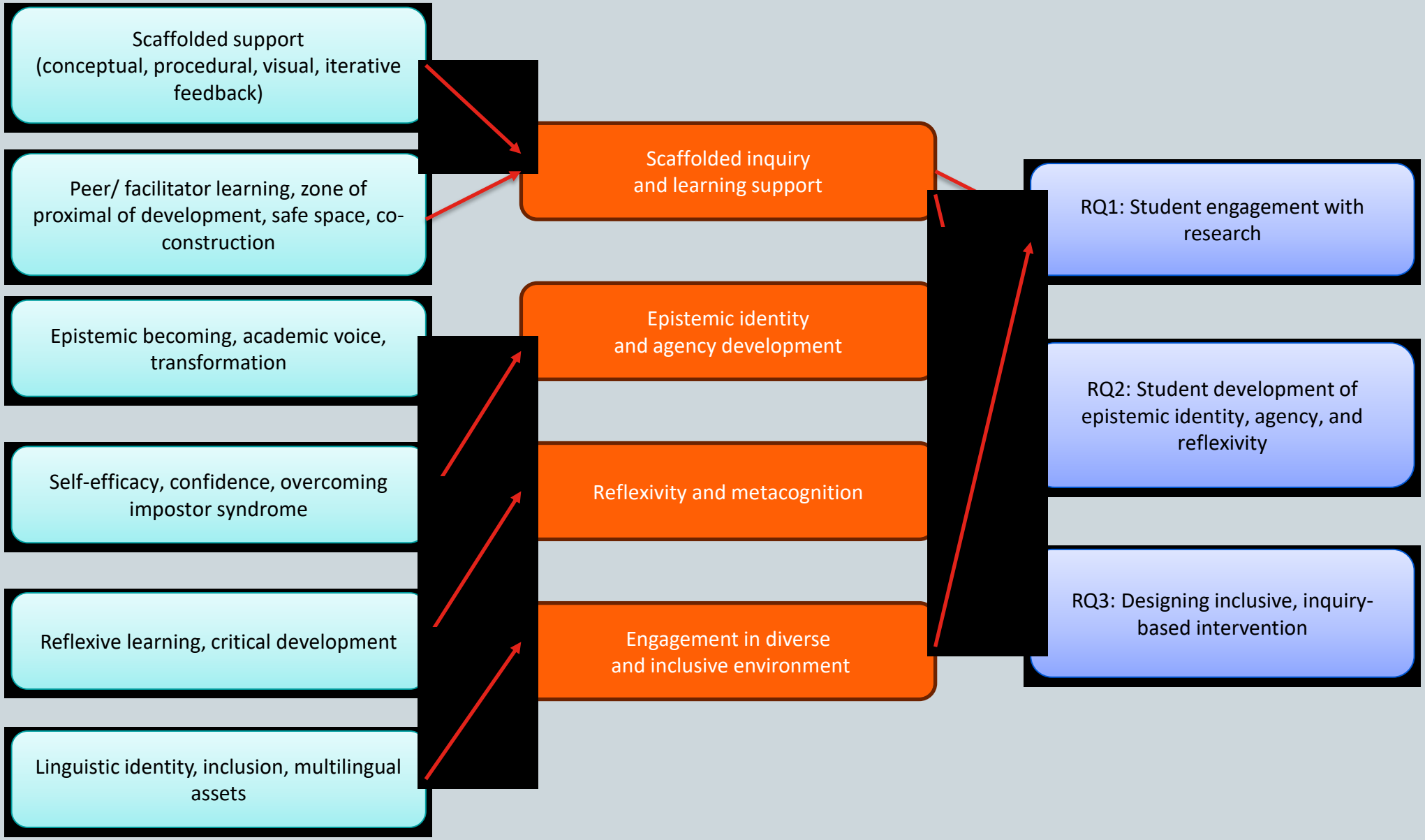
Summary of data collected across three cycles

Data sources:

- Post-intervention student questionnaires (n=35 total)
- Annual practitioner reflexive reports (n=3)

Academic year	Student questionnaire	Practitioner report
2022 – 2023	8	1
2023 – 2024	12	1
2024 - 2025	15	1

Thematic analysis: code structure



Theme 1: Scaffolded Inquiry & Learning Support

‘

Scaffolded learning structures

‘I’ve always been interested in sustainability but never thought I could contribute something academically meaningful as an undergrad. The essay competition changed that. [..].’
Ricardo, male, non-native, 22

‘I left with a clear sense of direction, which I didn’t have before. […] The facilitators didn’t assume we knew — […] Nicole, female, non-native, 21

Intentional scaffolding **(procedural, conceptual, social)** enabled students—especially from **non-traditional backgrounds**—to **access, author, and own** academic inquiry.

Theme 1: Scaffolded Inquiry & Learning Support

Structured visual pedagogies and clarity

'We did a mapping exercise which involves outlining how every paragraph linked to the overall thesis. It was painful but eye-opening. I realised my first drafts were basically bullet points in fancy language. I'm now a lot more strategic.' Jamal, male, non-native, 21

The workshops also **leveraged visual tools** and **structured pedagogies** to render academic conventions visible and navigable

Theme 1: Scaffolded Inquiry & Learning Support

Zone of proximal development and more knowledgeable others

'The facilitators broke things down using analogies. One example that I remember was: 'Your thesis is the compass. Without it, your reader is lost.' That stuck with me.' Kareem, male, non-native, 22

Facilitators not only **modelled academic norms** but translated them into **culturally and linguistically accessible** formats, aligning with SCT's emphasis on mediated learning.

Theme 2: Epistemic identity and agency development

‘

Epistemic identity formation: from outsider to contributor

‘I think I’d never thought of myself as someone with ‘a position’ before. The workshops helped me find it. […].’ Omar, male, non-native, 21

‘I never imagined that I’d be discussing the peer review report on journal manuscripts with my professor as an undergraduate! […] I could discuss the strengths and limitations of the paper[…] This gave me enormous confidence.’ Mohammad, male, native, 21

Through repeated social recognition and opportunities to make knowledge claims, students began to author their academic selves, transitioning **from passive learners to emerging scholars**.

Theme 2: Epistemic identity and agency development

‘

Academic self-efficacy and empowerment

‘We made a deliberate decision to move away from the ‘remedial’ narrative. […] One student asked, ‘So… do I get to critique this scholar?’ And I replied, ‘Yes. You’re part of the conversation now.’ That moment felt emblematic.’ Practitioner C, Year 1

‘‘It felt like we were part of a scholarly community, not just isolated students.’ Hana, female, non-native, 20

This alignment of **individual confidence with collective participation** exemplifies how **empowerment** was scaffolded through both **structural design and relational practice**. Participation in inquiry became a transformative process of identity formation, shaped by challenge, affirmation, and community.

Theme 3: Reflexivity and metacognition

‘

Critical reflexivity: questioning as transformation

‘One notable moment came during a peer review session. A student critiqued another’s essay by saying, ‘This feels safe — where’s the tension?’ […].’ Practitioner C, Year 2

‘By Year 3, the workshops had matured into true academic spaces of co-creation. We moved even further away from a deficit framing and treated students as developing scholars from day one.’ Practitioner C, Year 3

Critical reflexivity emerged most strongly in student accounts of learning to interrogate assumptions and claim intellectual space. Reflexivity is conceptualised as **emergent through social learning**, a product of structured, collaborative encounters in scaffolded academic communities.

Theme 4: Engagement in diverse and inclusive environments

‘

Sociocultural relevance and inclusion

‘I also appreciated how diverse the examples were as they showed case studies from all over the world, not just UK contexts.’ Amina, female, non-native, 21

‘Offering lunch wasn’t a pedagogical strategy at first but it became one. […] These ‘in-between’ moments were just as impactful as the formal instruction.’ Practitioner C, Year 1

Inclusivity extends **beyond formal curriculum**. **Unstructured time and relational spaces** (e.g. shared lunches) allowed deeper conversations about belonging, confidence, and cultural dissonance, fostering **mutual recognition** and **lowering barriers to participation**.

Discussion – Transformation through Sociocultural Learning

🧠 Transformation through Sociocultural Learning (Vygotsky, 1978)

- Engagement is socially mediated, not just skill-based
- Students progressed through the Zone of Proximal Development (ZPD)
- Scaffolding enabled identity development as researchers (Ricardo, Nicole, Mohammad)

🛠 Role of Structured Scaffolding

- Inclusive scaffolding (procedural, conceptual, metacognitive) demystified academic norms
- Promoted epistemic justice for diverse learners
- Bridged hidden curriculum gaps (Palincsar, 1998)

🗣 Reflexivity as Dialogic Practice (Cunliffe, 2002)

- Reflexivity emerged through peer dialogue, critique, and discomfort
- Aligned with O'Brien (2024); Hibbert & Cunliffe (2015) on affective, sociolinguistic dimensions of agency
- *'Reflexivity must be scaffolded, relational, and safe'*

Discussion – Institutional Implications & Theoretical Contribution

Bridging Institutional Gaps

- Many business schools limit research to final-year or elite tracks (Zou et al., 2022)
- This study offers a multi-entry, inclusive model: Essay competition, Workshops, Student-led journal
- *Supports confidence, visibility, belonging*

Call for Practice & Policy Reform

- Institutions must restructure extracurricular pathways
- Avoid capstone-only approaches; scaffold research early and accessibly
- Interventions challenge native-speakerism and promote epistemic inclusion

Theoretical Contribution to IBL

- Extends IBL by foregrounding:
- Sociocultural, identity-sensitive framework
- Longitudinal, action-oriented design
- *'IBL as identity work—not just knowledge work'*

Key Takeaway: Reimagining Research Engagement

Vygotsky's sociocultural theory

Learning is relational, scaffolded, and transformative

Build **epistemic agency** and voice

Scaffolded inquiry-based learning (IBL)

Meaningful research engagement and identity development

An identity-forming process, not just a skills-based task

Action research

Offers a **scalable, inclusive model** for business schools and beyond

Management education as relational, inclusive, and critically engaged

Any questions?

Thank you!

Thank you for your attention!

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