

From Learning Outcomes to Competence

What Should Graduates Be Able to Do and How Can We Map This Using Skill Portfolios?

WICKED PROBLEM SET

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Higher Education Faces a Competence Gap

Our systems are well-designed to measure what students *know* – but employers, communities, and graduates themselves are asking something more demanding: **What can they actually do?**

Higher Education Is Good at Measuring

- Knowledge
Factual recall and conceptual understanding assessed through exams
- Understanding
Demonstrated comprehension of disciplinary frameworks
- Academic Performance
Grades, classifications, and degree outcomes

But Graduates Also Need to

- Think Critically
Evaluate evidence and challenge assumptions
- Collaborate & Adapt
Work across disciplines and respond to uncertainty
- Exercise Ethical Judgement
Navigate complex moral and professional dilemmas
- Continue Learning
Apply knowledge in novel and complex situations

Today's Wicked Problem

Some problems resist simple solutions. The question of graduate competence is one of them — it is contested, value-laden, and demands that we hold two difficult questions simultaneously.

Question 1

What capabilities should graduates possess?

Beyond discipline-specific knowledge, what does a truly capable graduate look like? Who decides — institutions, employers, students, society?

Question 2

How can students recognise and evidence those capabilities?

Even if we agree on what matters, how do students demonstrate growth? What counts as credible, meaningful evidence of competence?

❏ These are not rhetorical questions — they are the design challenge at the heart of this session.

Discussion Round 1 — What Should Graduates Be Able To Do?

Imagine you are designing higher education entirely from scratch. No modules. No learning outcomes. No grades. What capabilities should every graduate possess?



Think Boldly

Set aside current constraints. What would a genuinely capable, humane, and adaptable graduate look like?



Discuss at Your Table

- Share perspectives across roles — faculty, students, and curriculum designers may see this very differently.
- Name 3–5 graduate capabilities you would make non-negotiable



Capture Your Top Capabilities

- Agree on three to five capabilities your group considers essential, regardless of discipline or context.
- Are these capabilities truly universal, or context-dependent?



Discussion Round 2: How Would We Know?

Identifying capabilities is only half the challenge. The harder question is evidentiary: what would genuinely convince you that a graduate has developed a particular capability? Grades alone are rarely sufficient.

The Core Question

What evidence would convince you that a graduate truly possesses the capabilities you have identified?

Consider what distinguishes *performance under assessment conditions* from genuine, transferable competence.

Possible Sources of Evidence



Assessments & Projects

Coursework, dissertations, applied briefs



Placements & Work Experience

Real-world application of skills



Reflection & Peer Feedback

Self-awareness and developmental narratives



Extracurricular Activities

Leadership, volunteering, societies

Discussion Round 3: Could Skill Portfolios Help?

A skill portfolio is a curated collection of evidence, experiences, and reflection that demonstrates a student's development over time – across academic, professional, and personal contexts.

Portfolios have been used in creative disciplines for decades. But could they serve as a broader vehicle for capturing graduate competence across all fields? This round asks you to think critically about both the promise and the pitfalls.



What Opportunities Does This Create?

For students, institutions, and employers – what becomes possible?



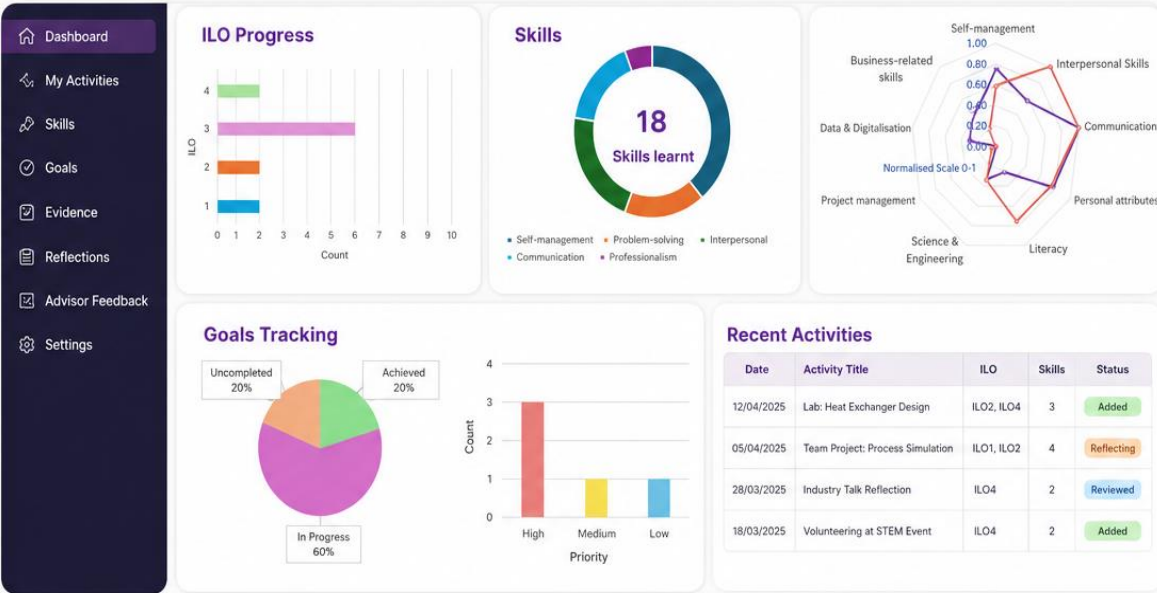
What Concerns Do You Have?
Consider equity, burden, credibility, and assessment integrity



What Would Make It Succeed?

What conditions – structural, cultural, or pedagogical – are required?

SCREENSHOT – STUDENT PORTFOLIO TOOL (EXAMPLE)



EXAMPLE ACTIVITY ENTRY

Activity Title:	Team Project: Process Simulation
Date:	05/04/2025
ILO(s):	ILO1, ILO2
Description:	Worked in a team of 4 to model and simulate a chemical process. Responsible for data analysis and presenting findings.
Reflection:	I improved my teamwork and communication skills. I learned how to use simulation software and apply theory to real-world problems. I need to improve my time management when balancing multiple tasks.
Skills Gained:	Problem-solvingTeamworkDigital skillsCommunication
Evidence Upload:	Process_Simulation_Report.pdf
What's Next (Action):	Improve time management and take lead in next project presentation.

EXAMPLE COMPETENCY MAP

Competency	Year 1	Year 2	Year 3	Year 4	Current Proficiency
Self-management	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.75
Communication	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.85
Problem-solving	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.85
Interpersonal Skills	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.80
Data & Digitalisation	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.80
Project Management	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.70
Science & Engineering	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.90
Literacy	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.85
Business-related Skills	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.60
Personal Attributes	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	★ ★ ★ ★ ★	0.85

Collective Synthesis — What Have We Learned?

Each table is invited to share three contributions from your discussion. Together, these form a collective map of what we value, what we can evidence, and how we might design for it.



One Capability

The single graduate capability your group considered most essential — and why it matters beyond the degree.



One Evidence Source

The form of evidence your group found most credible or compelling for demonstrating real competence.



One Design Principle

A guiding principle that should shape how skill portfolios — or competence-based education — are designed and implemented.

Final Reflection: If Competence Became the Organising Principle...

If competence – not credit accumulation – became the organising principle of higher education, what would need to fundamentally change?

This is not merely a pedagogical question. It is an institutional, cultural, and political one. Reflect individually, then share: which of these changes feels most urgent – and which feels most difficult?

Curriculum

Would modular, credit-based structures give way to competence pathways and integrated experiences?

Assessment

Could portfolios, demonstrations, and professional judgement replace examinations as the primary currency?

Student Support

Would students need guidance not just academically, but in building and narrating their own development?

Institutional Culture

Can universities shift from gatekeepers of knowledge to partners in developing human capability?

Continue the Conversation

The questions explored today do not end in this room. We invite you to carry them back into your practice, your programmes, and your disciplines.



For Curriculum Designers

How might you build space for capability development — and its evidence — into the programmes you design?



For Students

What capabilities are you developing right now that your transcript does not capture — and how might you begin to articulate them?



For Academic Leaders

What one structural change could our institution make to better recognise and support the full range of what graduates can do?

Dr Salman Shahid & Student Partners — Thank you for thinking with us today.

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