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The value and values of learning gain data: Evidence, ethics and enhancement

University of Edinburgh Learning and Teaching Conference

19 June 2019

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Overview

- Student engagement

- Evidencing learning gain

- Using learning gain data

- Learning gain and enhancement

- Ethics and engagement

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Student engagement (UK)

The participation of students in quality enhancement and quality assurance processes, resulting in the improvement of their educational experience

(QAA Quality Code, Chapter B5)

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Student engagement (US)

"the time and effort students devote to activities that are empirically linked to desired outcomes of college and what institutions do to induce students to participate in these activities"

(Kuh, 2009: 683)

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Seven Principles of Good Practice in Undergraduate Education

1. encourages contact between students and faculty,
2. develops reciprocity and cooperation among students,
3. encourages active learning,
4. gives prompt feedback,
5. emphasizes time on task,
6. communicates high expectations, and
7. respects diverse talents and ways of learning.

(Chickering & Gamson, 1987)

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Marketisation

- Competition = Quality (?)
- Student as (rational) consumer
- Performance and accountability
- Value for Money

    ...quantification of learning

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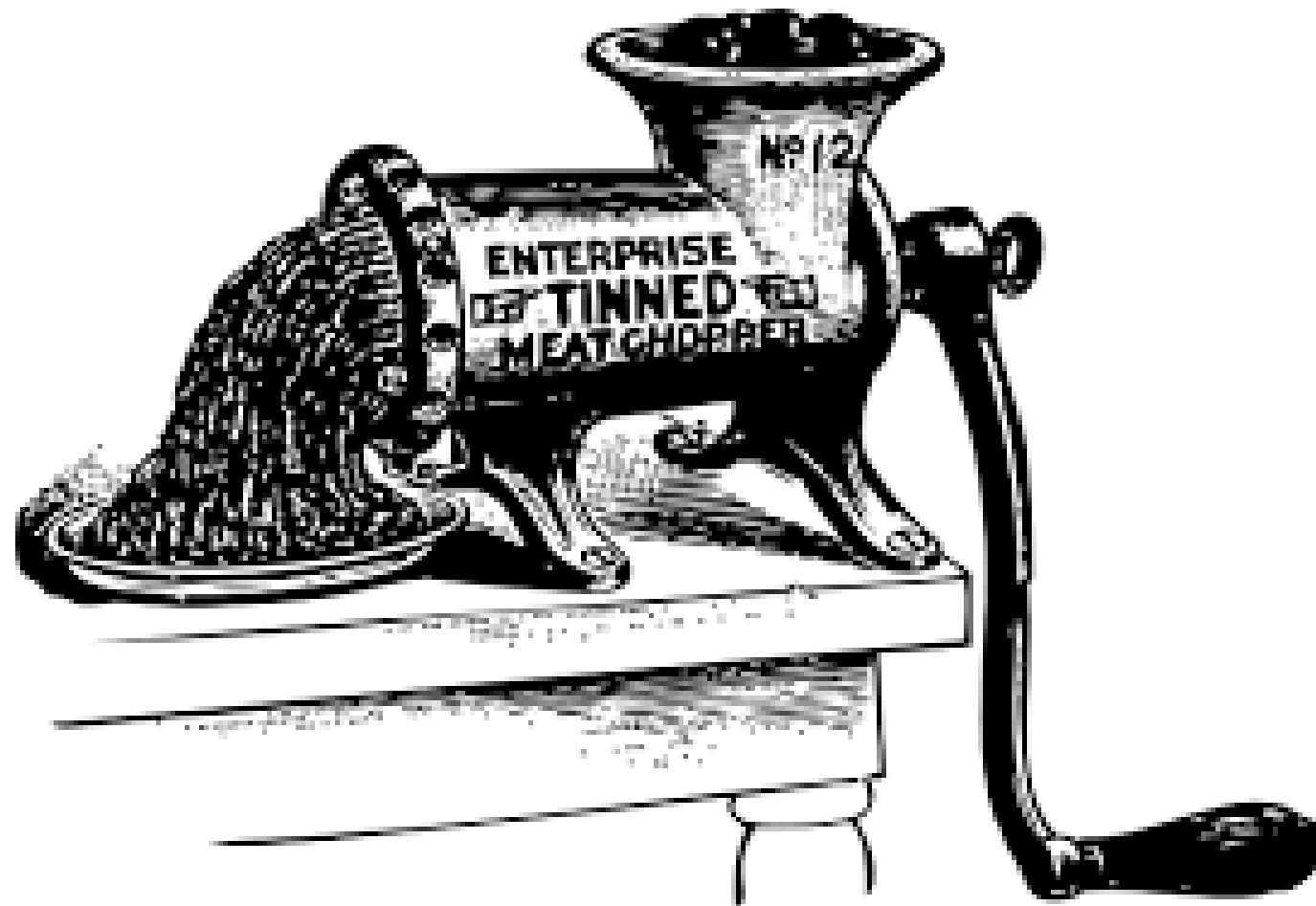
Evidencing Learning Gain

Learning Gain: Challenges

- Student engagement with tests and surveys

- Motivating students to invest in tests that don't contribute to assessment

- Liberal arts versus subject specific degrees

- Discipline bias in standardised tests

- Comparability of some entry and exit measures

- Reliability of student self-reports

- Data protection, data sharing, research ethics

– But closest current proxies for learning are satisfaction surveys and graduate salaries…

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HEFCE/OfS Learning Gain Programme

- 13 mixed method projects involving 70 institutions over three years, using:

  - Learner analytics/Grades

  - Self-report surveys

  - Standardised tests

  - Multiple measures of a specific theme

- National Mixed Methodology Learning Gain Project (NMMLGP)
- Higher Education Learning Gain Analysis (HELGA)

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What to measure

What is the purpose of higher education?

What is valued?

What are student expectations of higher education?

What should graduates know and be able to do?

Access, retention, progression, attainment, intensification
→ Widen access but not lower standards

Input measures

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Affective measures

- Transition experience
- Self efficacy
- Well-being
- Disposition to learning
- Confidence
- Resilience
- Satisfaction

Behavioural measures

- Student engagement
- Placements/ work-based learning
- Employability experiences
- Co-curricular activities
- Skills self-assessment
- VLE engagement
- Learner analytics

Cognitive measures

- General cognitive gain
- Disciplinary cognitive gain
- Critical Reasoning Skills
- Situational judgement
- Research methods

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Outcome measures

What have your students gained?

- Grades, progression
- 'Work readiness', Employability skills (Affective, Behavioural, Cognitive)
- Other outcome measures

Back to purposes…

- Is it critical thinking, generic graduate skills, disciplinary mastery, developing employability or something more holistic? Or job, salary level?

Into policy and practice

Balance between
methodological precision
and practical collection
and application of data

Using Learning Gain Data

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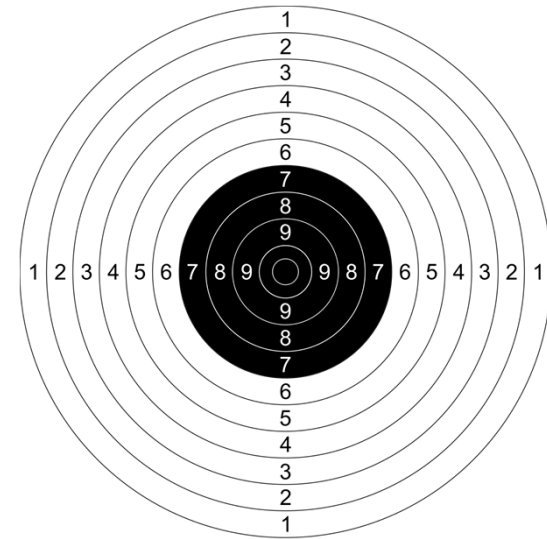
Level of use	Purpose of use
Prospective students	
Current students	
Classroom enhancement	
Course management	
Institutional (service delivery)	
Institutional (strategic)	
Cross-institutional	
Employers	
Government	

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Level of use	Purpose of use
Prospective students	Informed choice on value for money
Current students	Provide data for reflection, awareness raising
Classroom enhancement	Pedagogical enhancement, data for teaching staff to tailor information to students
Course management	Management, pedagogical enhancement
Institutional (service delivery)	Enhance and tailor student services (e.g. careers services)
Institutional (strategic)	Programme review, inform strategy, enhancement, evaluate programmes, staff reward and recognition
Cross-institutional	Benchmarking, comparisons
Employers	Recruiting graduates, diversifying workforce
Government	Accountability, regulation, quality assessment, market indicators

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What is 'success' in higher education?

- Levelling playing field?
- Degree outcome?
- Effort put in?
- Employment? Salary?
- Return on Investment (RoI)

Students / Staff / Senior Management / Government

What do YOU value in higher education?

Learning gain and enhancement

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Support student learning

Personalised learning data and dashboards

Instruments that are reflective pedagogical tools (UKES)

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Evaluate classroom interventions

Innovative pedagogies (University of East Anglia)

Embedding research in teaching (Plymouth University)

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Enhance course experience

From 'module-mania' to larger curriculum focus

Learning analytics
- Bottlenecks and pinch points
- Pathways of success or failure (Open University)

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Target institutional initiatives

Measure and track attainment gaps (University of Reading; Open University)

Careers services interventions (Careers Group; LEGACY project)

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Start with the end: What are you trying to achieve?

- Start with purpose, then devise metrics and other forms of evidence to facilitate evaluation of the purpose
- Need to work **WITH** students at every level

What does doing this well look like?

- "By carrying out evaluation of our interventions and support mechanisms and generating carefully considered, fit for purpose evidence that addresses our evaluation questions"

- "I've found time and again that the explanations of NSS data by students can differ greatly from the explanations departments give. Putting those alongside each other creates rich insights"

When you get the same positive story from all corners of the institution, and students actually reference data and outcomes

Ethics

Ethics

- Research *about* students
  - Students as data points or data sources
- Research *with* students
  - Student engagement; co-design; co-creation; students as partners; SoTL
- Research *for* students
  - Information, advice and guidance; learner analytics; nudge behaviours
- Research *on* students
  - Randomised controlled trials (RCTs); students manipulatative; universities as a petri dish

Student engagement (-)

- Challenges of getting students to complete tests, surveys, etc
- Students making sense of and acting on data
- 'Pact of disengagement'
- What students 'want' versus 'what is good for them'

Student engagement (+)

Opportunities for students to be part of:

- Evaluation planning
- Data gathering
- Data analysis
- Data sharing
- Actioning data
- Enhancement
- Feedback and follow-up

Engage students!

- Challenge students
- Support students
- Inform students
- Seek, ask and report on feedback
- Provide opportunities for students
- Hold students responsible
- Work WITH not FOR students

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Thank you!

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www.officeforstudents.org.uk/advice-and-guidance/teaching/learning-gain/