

Transformative student learning gains

Tampere University

Transforming Teaching and Learning Cultures in Higher Education

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Overview

- Student engagement
 - Evidencing learning gain
 - Using learning gain data
 - Learning gain to transform education
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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)

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)

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.

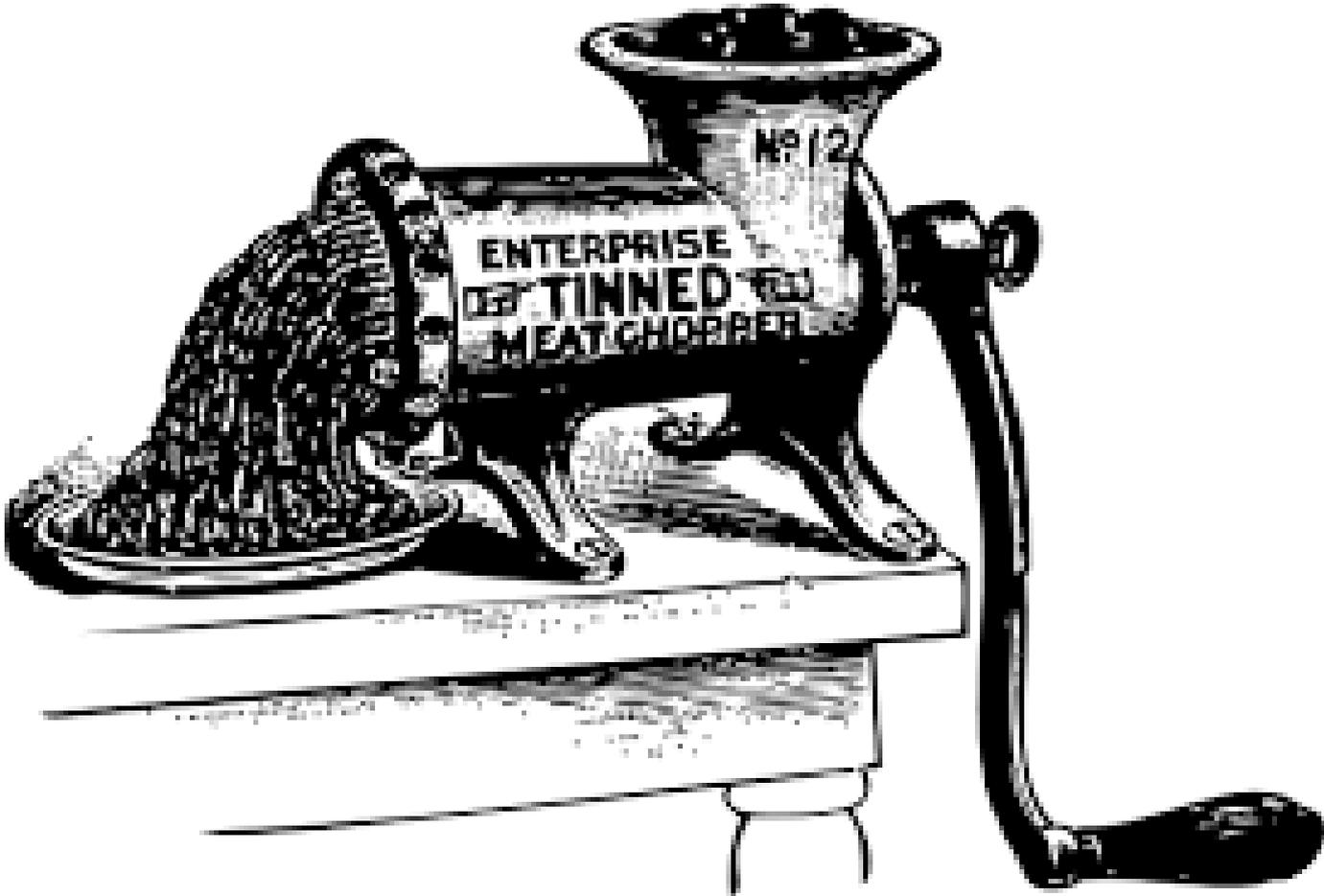
(Chickering & Gamson, 1987)

Marketisation

- Competition = Quality (?)
 - Student as (rational) consumer
 - Performance and accountability
 - Value for Money
 - ...quantification of learning
 - Focus on outcomes
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Measuring Student Outcomes/Learning Gain

- AHELO (Assessment of Higher Education Learning Outcomes) OECD
 - *Academically Adrift* (Arum & Roska 2011) using CLA data (Collegiate Learning Assessment)
 - Tuning work across Europe
 - Global and domestic rankings
 - Valuing research and teaching
 - Globalisation of accreditation
 - World Bank investment in HE
 - Varying models for public/private contribution to cost of HE
 - Debates about public/private returns from HE
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Learning gain

change in knowledge, skills, work-readiness and personal development, as well as enhancement of specific practices and outcomes in defined disciplinary and institutional contexts

(Kandiko Howson 2019)

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...

HEFCE/OfS Learning Gain Programme

(Higher Education Funding Council for England/ Office for Students)

- 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**

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Input measures



Dimensions of learning gain

- measures of general **cognitive gain** –what students think and know;
 - measures of **soft skills development** –affective measures of attitudes and how students feel and behavioural measures of students' engagement;
 - **employability and career readiness** –largely behavioural measures of activities students have undertaken in preparation for the world of work.
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Outcome measures

What have your students gained?

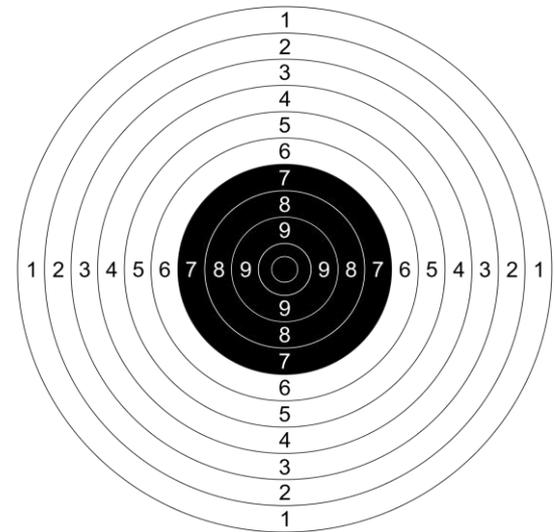
- Grades, progression
- 'Work readiness', Employability skills (Affective, Behavioural, Cognitive)
- Other outcome measures

Back to purposes...

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

Balance between
methodological precision
and practical collection
and application of data



Importance of purpose

Given considerations of value for money and practicality, because something *can* be measured does not mean it *should* be measured, particularly at a large scale

Multiple measures; multiple points in time

- Multiple measures of learning gain are necessary to capture the diversity of student learning in higher education
 - highlights the interconnectedness of measures
- Student learning occurs across many dimensions and varies over time and direction and needs to be accounted for throughout a student's course experience at multiple points in time
 - Entry and outcome measures need to be used contextually and carefully to support capturing learning gain measures and not as targets themselves

Using Learning Gain Data

Uses of learning gain data

- enhancing teaching and learning;
 - employability and transition into work and further study; and
 - quality, accountability and performance
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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	

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 to transform education



Research-based student learning

Personalised learning data and dashboards
(University of Lincoln)

Instruments that are reflective pedagogical tools
(UKES)

Outcomes across diverse student characteristics
(University of East London)

Evaluate classroom interventions

Innovative pedagogies (University of East Anglia)

- Flipping the classroom
- Peer learning and confidence in large lectures

Embedding research methods in teaching
(Plymouth University)

Enhance course experience

Diagnostic testing with diverse intake (Birmingham City University)

From 'module-mania' to larger curriculum focus (University of Manchester)

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)

Evaluate Strategic Plans (University of Portsmouth)

Collaborate across institutions

Work-preparedness in creative subjects
(Ravensbourne)

Specific institutional types (The Manchester
College)

Progression into university study (Plymouth)

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 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

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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Value for money

Value of
(I)earning
in higher education

Learn more!

- *Higher Education Pedagogies* 2018, Volume 3, Issue 1
<https://www.tandfonline.com/toc/rhep20/3/1?nav=tocList>
- HEFCE/OfS project websites and publications
<https://www.officeforstudents.org.uk/advice-and-guidance/teaching/learning-gain/learning-gain-pilot-projects/>
- SRHE Seminars (archived) <https://www.srhe.ac.uk/networks/>
 - Learning Gain: Different Perspectives
 - Engaging with Engagement Data: Education, Enhancement and Excellence
 - Measuring Employability Gain – approaches from different countries

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Thank you!



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