Learning Gain

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HIGHER EDUCATION FUNDING COUNCIL FOR ENGLAND

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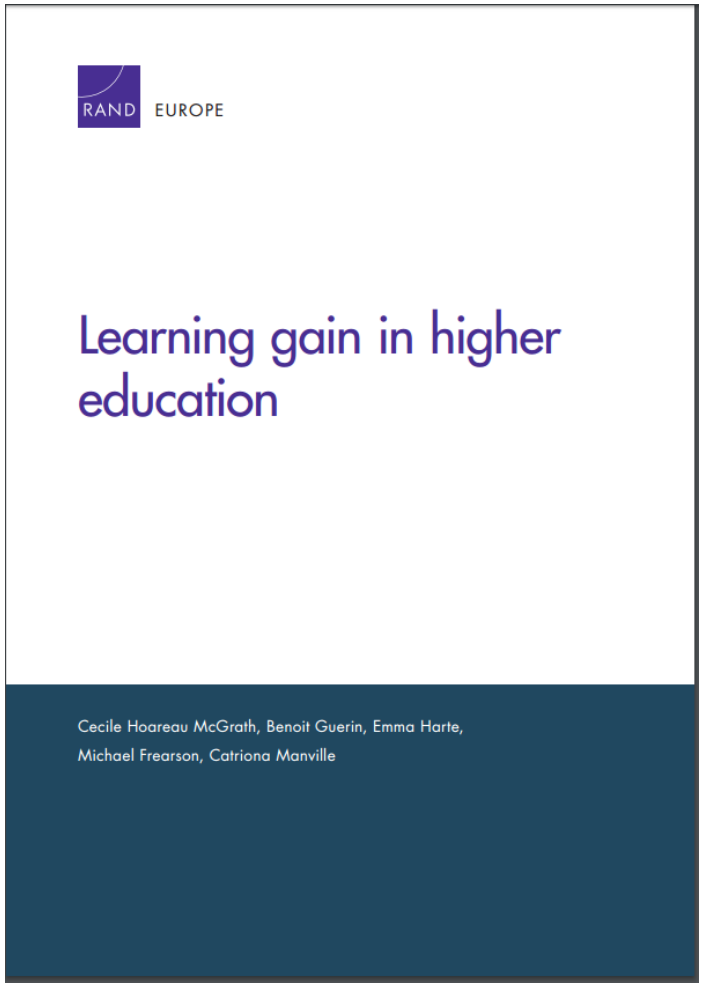
Context for Learning Gain Programme

- Every year the government writes to HEFCE (grant letter) setting out various requests and priorities for activities
- HEFCE asked to work with the sector to develop and test measures of learning gain
- Interest in exploring what students gain from their time in HE
- International discussions on learning gain and learning indicators: Academically Adrift, OECD's AHELO
- In 2014, HEFCE commissioned RAND Europe to undertake a **scoping study** on learning gain

RAND recommendation to: *"conduct a series of pilots in order to explore further some of the considerations relating to the measurement of learning gain in the English context"*



Understanding learning gain

Learning gain has been understood for the purpose of HEFCE's work to relate primarily to the changes in knowledge, skills, work-readiness and personal development during a student's time in HE.

Objectives of the HEFCE learning gain programme

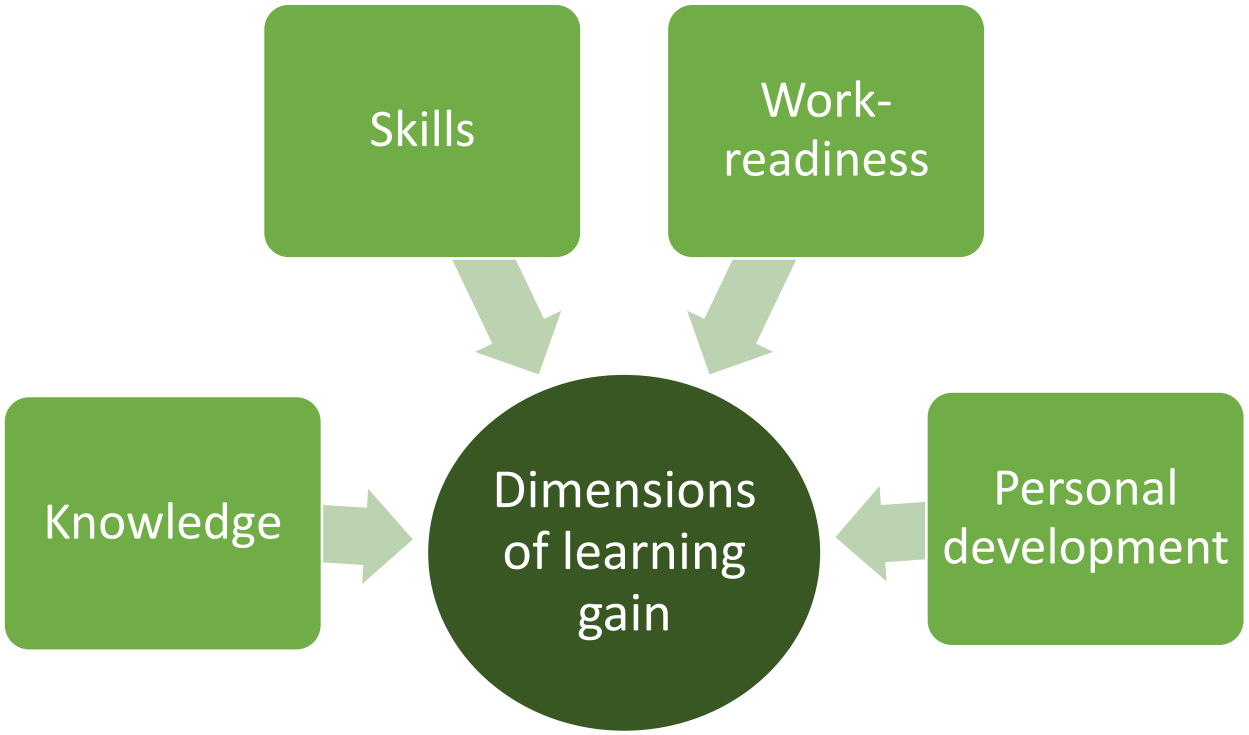
- To catalyse activity and dialogue on learning gain across the sector
- To develop sector-wide agreed, common characterisations of learning gain (appropriate for the English HE context)
- To identify methods for measuring learning gain
- To explore whether a valid proxy or proxies for learning gain could be used that would enable low burden aggregate comparison
- To identify and share experiences on the use of learning gain to enhance learning and teaching strategy and practice.

Learning gain activity

Pilot projects	Thirteen institutionally-led pilot projects exploring emergent methodological approaches to understanding and measuring different aspects of Learning Gain
The national mixed methodology learning gain project (NMMLGP)	A HEFCE-administered longitudinal study combining a critical thinking and problem solving test with self-reflective questions exploring academic motivation, attitudes to literacy and diversity, and dimensions of student engagement
The Higher Education learning gain analysis project (HELGA)	An exploration of the potential application of administrative data to learning gain issues.
Raising and building understanding and awareness	• RAND report • National conferences and network events • Steering group and expert group

2015-16: 13 institutionally led pilot projects

Methods
Grades - Differences between student grades at two points in time **Surveys** - Students self report on what they have learned (etc.) through a survey **Standardised Tests** - Measure acquisition of generic or specialised skills **Other qualitative methods** - Including personal development portfolio and/or reflection on skills gap **Mixed Methods** - Using a range of tools / methods to track performance



Building knowledge about, and capacity for, measuring and using learning gain

What do we know so far- Institutional context

- Pilot project evaluation- Dr Camille Kandiko-Howson
- **Types of pilots:** telescope projects and microscope projects (source: Evaluation of HEFCE's Learning Gain Pilot Projects Year 1 Report, Dr Camille B. Kandiko Howson, 2016)

Telescope Projects	***Microscope projects***
• Analysis of large amounts of data • Includes measures and use of **learning analytics** and **registration data** • Data often indicates correlational relationships but does not explain *why*, requiring qualitative analysis (Source: Kandiko-Howson, 2016)	• Collecting data from specific groups of student in specific subjects over time • Specific area of inquiry (work placements) • Methods include **tests(CLA+)** , **surveys** and **qualitative measures**. • Findings difficult to generalise across student characteristics, subjects, etc. (Source: Kandiko-Howson, 2016)

Building knowledge about, and capacity for, measuring and using learning gain

What do we know so far- Institutional context continued

- Data has been used for enhancement purposes in a number of the pilot projects
- Approaches for enhancement used by pilot projects:

➢ **Personalised approaches**: data used for personal development tools, personalised reports or dashboards

➢ **Pedagogy and curriculum design**: data is used to enhance the classroom learning experience

➢ **Institutional enhancement**: data that helps support Careers offices and skills and training units to tailor services and to target specific at-risk or in-need students.

➢ **New and innovative solutions**: application of learning gain measures to identify and address differential student attainment.

Source: Evaluation of HEFCE's Learning Gain Pilot Projects Year 1 Report, Dr Camille B. Kandiko Howson, 2016.

2016-17: national project launched

Critical-thinking & problem-solving	Attitudes towards study experience	Engagement
12 test questions exploring respondents ability to: • summarise the main conclusion (CT) • assess the impact of additional evidence (CT) • apply principles (CT) • detect reasoning errors (CT) • identify similarity (PS) • find procedures (PS) • make relevant selections (PS).	Three sets of survey questions exploring: • Positive attitude toward Literacy (6 questions) • Openness to diversity (7 questions) • Academic motivation (8 questions)	Three sets of survey questions exploring: • course emphasis on critical thinking • interaction with staff • time spent between various academic and non-academic activities
source: Cambridge Assessment	source: Pascarella/Wabash	source: HEA/UKES questions 1, 5 and 18

2016-17 (1st administration)	2016-17 (2nd administration)	2017-18 (3rd administration)	2018-19 (4th administration)	2022?
1. Critical-thinking & problem-solving 2. Attitudes towards study experience	1. Critical-thinking & problem-solving 2. Attitudes towards study experience 3. Engagement	TEST REPEATED		Link results to graduate outcomes?

Higher Education Learning Gain Analysis (HELGA)

Investigating the trade-off between burden and validity through:

- Start- and end-points in existing administrative data
- Methods for making comparisons across institutions/departments

Approach:

- Applying proven methods
- Linked administrative datasets
- Drawing on academic expertise - Learning Gain Expert Group

Next steps

Promoting partnerships and encouraging dialogue across the sector

- HEFCE webpages
- Blogs
- Conferences

Evaluation

- Pilot projects
- NMMLGP
- TEF provider submissions

Reporting findings

- Report to Department for Education
- Pilot project case studies

Thank you for listening

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