

What can the TEF learn from learning gain?

CGHE Symposium

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Overview of presentation

- The HEFCE/OfS learning gain programme
- What the pilot projects have done
- Implications for TEF
- Evidence from overseas



HEFCE/OfS learning gain programme

What is learning gain?

The learning gain programme is a research project that looks at how to measure improvements in knowledge, skills, work-readiness and personal development made by students during their time in higher education.

Value-added

Measurements allow universities and colleges to understand the effect of different teaching practices and therefore improve the support available to students.

The programme objectives are to:

- promote activity and dialogue across the sector on learning gain
- identify methods for measuring learning gain
- develop sector-wide agreed, common characterisations of learning gain
- share experiences on the use of learning gain to enhance teaching and learning.

- Office for Students website (2018)

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HEFCE/OfS learning gain programme

Pilot projects

- 13 collaborative projects, involving 70 universities and colleges, funded £4 million in 2015 to test and evaluate different ways of measuring learning gain. Reporting back at the end of 2018.

NMMLGP

- Standardised testing run by HEFCE/OfS.
- 31,000 undergraduate students from 10 higher education institutions in England invited to participate.

HELGA

- HEFCE/OfS analysis of existing, administrative data.

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HEFCE/OfS learning gain programme

Focus
of
pilots

TEF

| 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 |

HELGA

Table 1. Summary of levels of use of learning gain metrics

- King's College London (2018).
*Evaluation of HEFCE's Learning Gain
Pilot Projects Year 2*

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Pilot projects

What the pilots are measuring

- Affect
- Behaviour
- Cognition



Evaluation of HEFCE's Learning Gain Pilot Projects Year 2

April 2018

Report to HEFCE by King's College London

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Pilot projects

How the pilots are measuring

| Cognitive gain | New data | Existing data |
|---------------------------------|----------------------------|--|
| General cognitive gain | Questionnaires; surveys | |
| Subject-specific cognitive gain | Tests; concept inventories | Module marks; Grade Point Average (GPA); grade trajectories; Degree classification |

| Soft skills development | Student characteristics | Classroom context | Institutional context |
|-------------------------------------|--------------------------|-----------------------|-----------------------|
| General skills development | Surveys; student records | | Surveys |
| Subject-specific skills development | Surveys | Innovative pedagogies | Surveys |

| Employability and career readiness | Embedded within course | Institutional support services |
|---|--------------------------|--------------------------------|
| Student self-assessment | Surveys | Surveys |
| Engagement with activities | Surveys; student records | Surveys; qualitative measures |



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A TEF measure of learning gain?

Characteristics of TEF metrics

- Apply to all undergraduates, including mature, part-time, distance learners etc
- Apply to all HE providers, from small specialists to large, research-intensive institutions
- Compare institutions on a like-for-like basis using benchmarking

A TEF measure of learning gain?

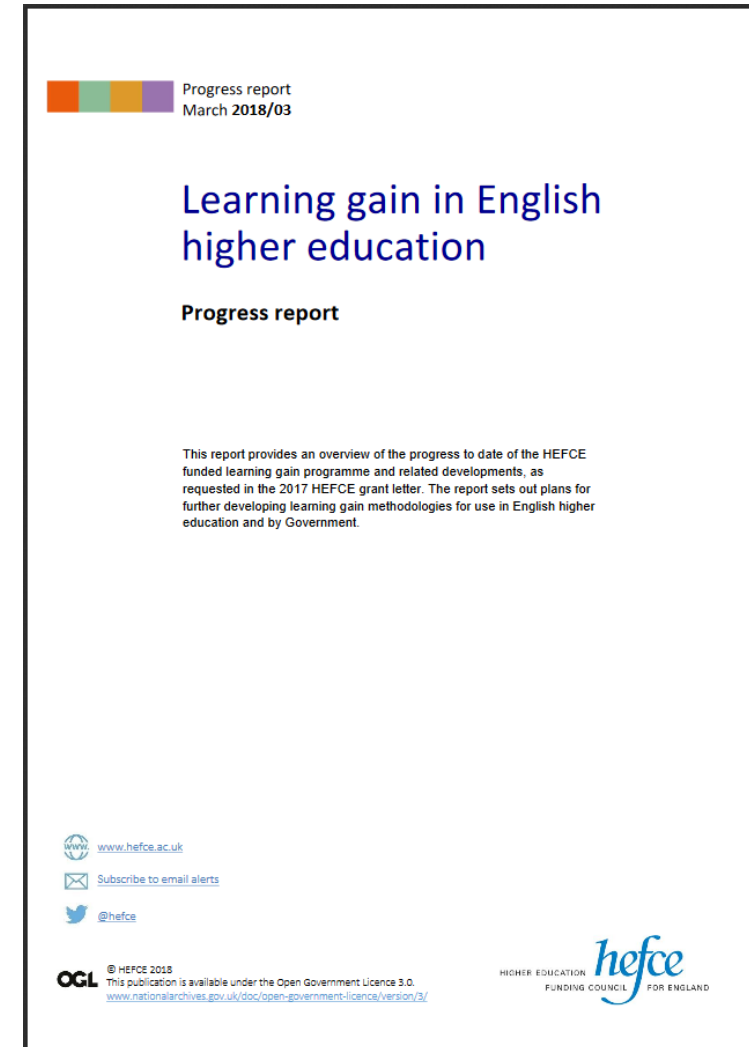
Challenges in developing a learning gain measure for TEF

- Consistent definition of learning gain across institutions
- Consistent measurement of learning gain across students
- Method for making like-for-like comparisons
- A measure that does not invite gaming or inefficient redirection of resources

A TEF measure of learning gain?

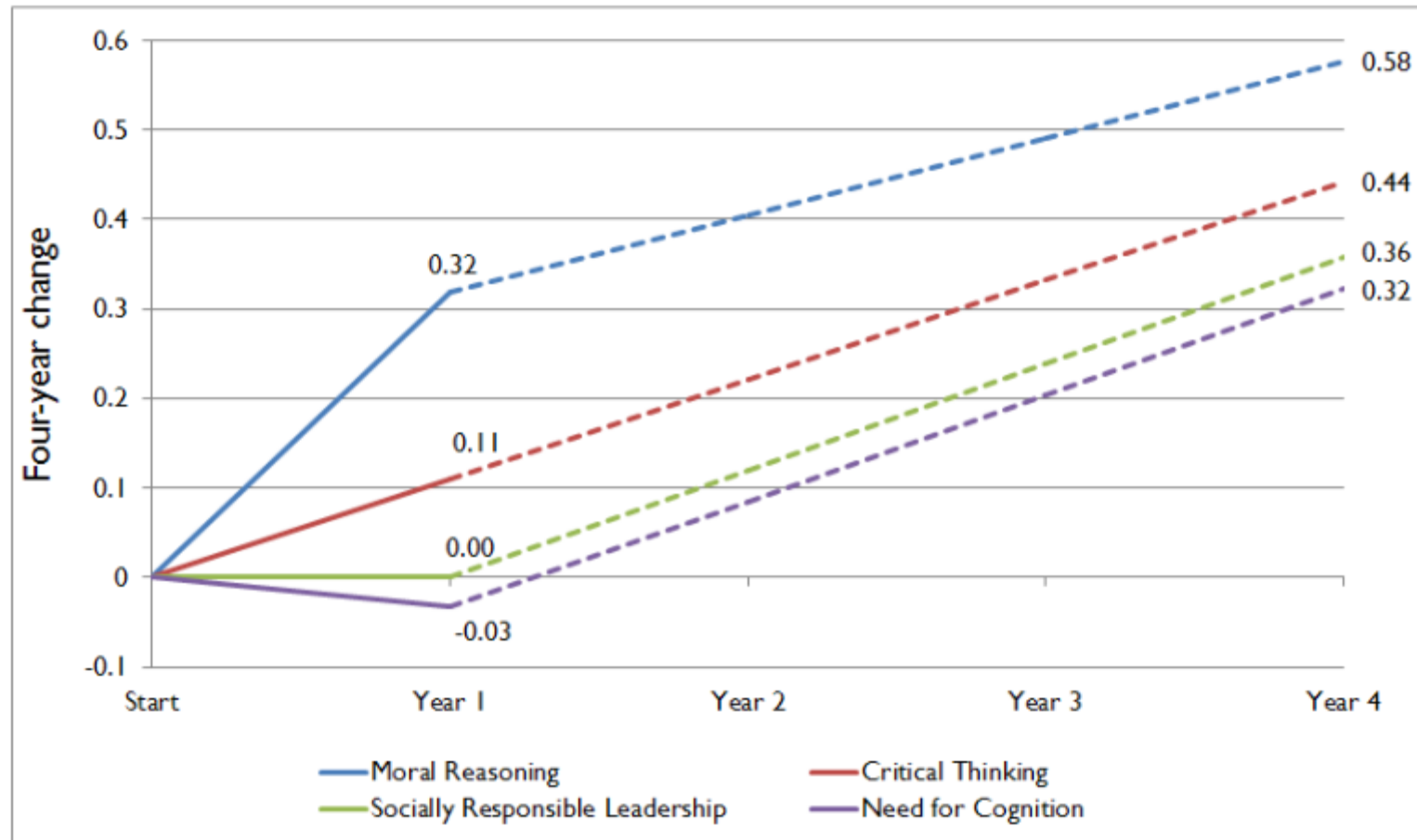
Possible alternatives to a TEF metric

- Dashboard of measures
- Toolkit of measures



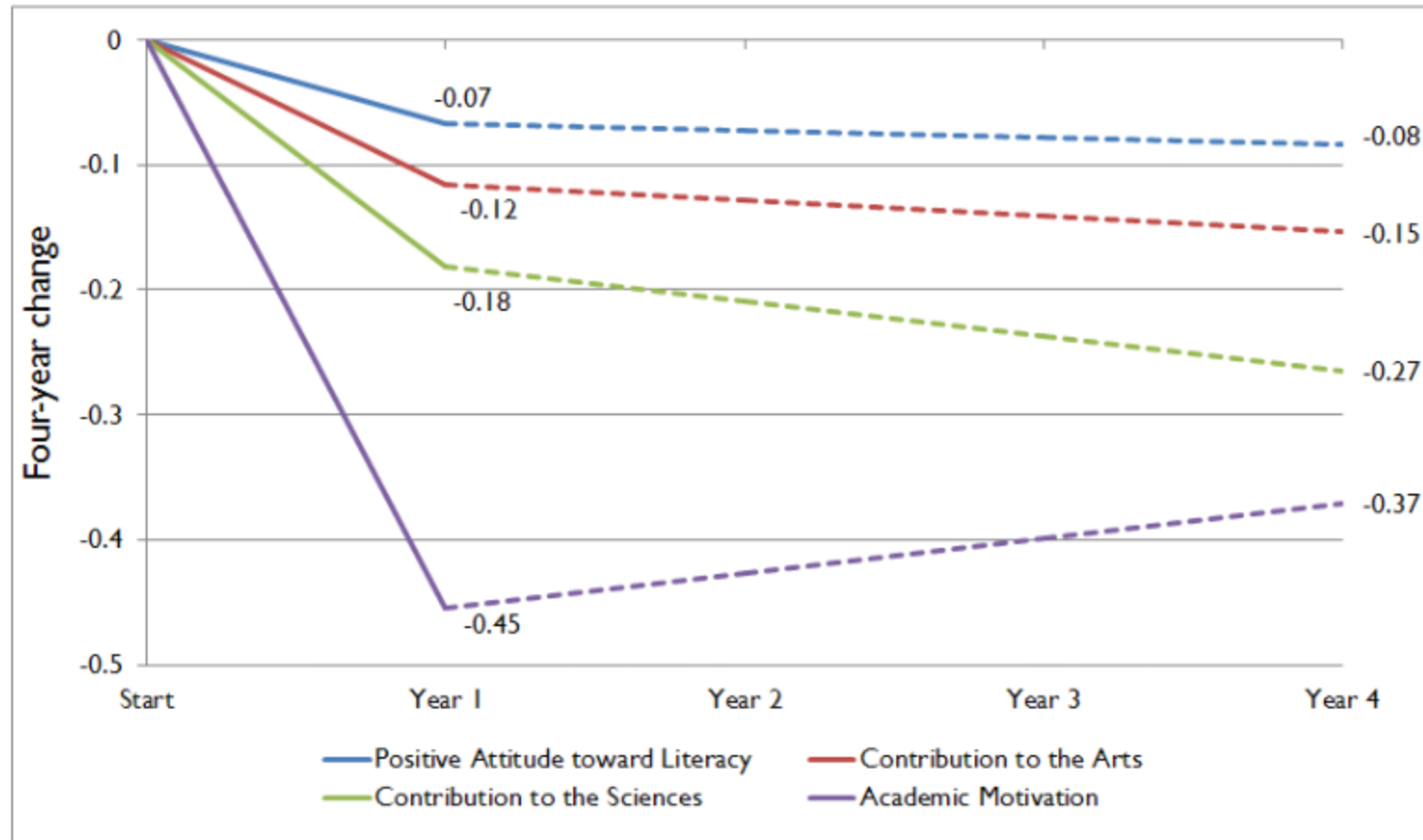
Evidence from overseas: Wabash National Study

Figure 1. Four-year student change measured in standard deviations for **moral reasoning, critical thinking, socially responsible leadership, and need for cognition.**



Evidence from overseas: Wabash National Study

Figure 3. Four-year student change measured in standard deviations for positive attitude toward literacy, contribution to the arts, contribution to the sciences, and academic motivation.



Evidence from overseas: Wabash National Study

Figure 5. **Box plots** of the within-institution variation for small colleges (S) and large universities (L) in four-year student change (in standard deviations) in **academic motivation**.

