

Assessing Student Learning: A Comparison of Existing Methods for Evaluating the Learning Gain of Students

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Evaluating the learning gain of students has been proposed as a key metric for the Teaching Excellence Framework. The Higher Education Funding Council for England (HEFCE) has therefore considered this opportunity and defined five different approaches for measuring Learning Gain summarised below (McGrath *et al* 2015).

1. Grade Based

Key Advantages:

- Enables longitudinal study of students,
- Robust, objective and representative data,
- Not discipline specific.

Key Disadvantages:

- Differentiation between grades limited,
- Previous benchmark data not collected,
- Limited indication of Learning Gain.

2. Standardised Tests

Key Advantages:

- Enables cohort comparison across years,
- Representative data facilitates comparability,
- Measures generic and discipline specific skills.

Key Disadvantages:

- Large admin cost and question bank required,
- Low response rates with only sampled cohorts,
- Questions replicate exams and simplify topics.

5. Mixed Methods

Combines aspects of other approaches

3. Surveys

Key Advantages:

- Using existing national surveys is efficient,
- Entire student population considered,
- Not discipline specific.

Key Disadvantages:

- Replicability issues and low response rates,
- Subjective and so validation advisable,
- Limited indication of Learning Gain.

4. Qualitative Self-Assessment

Key Advantages:

- Self assessment using portfolios,
- Includes personal development planning,
- Identifies learning students find most difficult.

Key Disadvantages:

- Bespoke subjective data reduces comparability,
- Difficult to derive rigorous results,
- Large admin cost with text based submissions.

Validity: Consider the effect of omitted variables such as student motivation, characteristics of institutions, changes in financial situation and/or changes in student body composition.

Representativeness: Missing data may mean that the results are not representative due to a distortion of the results. This becomes an issue of increased importance when students have the option to opt-in or opt-out of the assessment.

Comparability: Interpretation of Learning Gain results will depend upon the context. Only 'like for like' comparisons should be considered, e.g. at the same student, discipline or institutional levels and allowing for any changes in course content/delivery.

References: McGrath, C.H., Guerin, B., Harte, E., Frearson, M. & Manville, C., 2015. *HEFCE report - Learning gain in Higher Education*. Santa Monica, CA: RAND Corporation.