What Makes Sense with Learning Gain?

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ARTICLE

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Making sense of learning gain in higher education

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ABSTRACT

Internationally, the political appetite for educational measurement capable of capturing a metric of value for money and effectiveness has momentum. While most would agree with the need to assess costs relevant to quality to help support better governmental policy decisions about public spending, poorly understood measurement comes with unintended consequences. This article provides a comprehensive overview of the development of measures of learning gain in higher education, exploring political contexts, methodological challenges, and the multiple purposes and potential of learning gain metrics for quality assurance, accountability and enhancement, and most importantly, we argue, the enhancement of learning and teaching. Learning gain approaches should be integral to curriculum design and delivery and not extraneous to it. Enhancing shared understandings of concepts, measures, and instruments, transparency in reporting and investment in developing pedagogical research literacy, including effective use of data are essential in the pursuit of meaningful approaches to measuring learning gain within higher education.

https://www.tandfonline.com/doi/full/10.1080/23752696.2018.1508360

https://srheblog.com/2018/10/11/the-holy-grail-of-pedagogical-research-the-quest-to-measure-learning-gain/

The 'Holy Grail' of pedagogical research: the quest to measure learning gain

October 11, 2018 by SRHE News Blog | 1 Comment

by Camille Kandiko Howson, Corony Edwards, Alex Forsythe and Carol Evans

Edwards, C.,Evans, C., Forsythe, A., & Kandiko-Howson, C., & (2018). Learning gain still has potential. WONKHE.
https://wonkhe.com/blogs/something-ventured-something-gained/

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Learning gain: political expedient or meaningful measurement?

The political craving for simple measures of learning gain is neither pedagogic informed nor sufficiently nuanced. Alex Forsythe, Carol Evans, Camille Kandik Howson and Corony Edwards argue that only by changing focus will the conce become useful

Forsythe, A., Evans, C., Kandiko-Howson, C., & Edwards, C. (2018).

https://www.timeshighereducation.com/features/learning-gain-political-expedient-or-meaningful-measurement

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ANALYSIS | 30/09/18

Learning gain still has potential

Image: Shutterstock

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In mid-September, the Office for Students quietly announced that the National Mixed Methods Learning Gain (NMMLG) project had been ditched.

It turns out that while the project team may have developed a good test for measuring changes in students' knowledge, skills and values over time, the vast

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The Pedagogical Imperative

That there is no silver bullet for learning gain is not the issue; how we can gain valuable insights into the learning process is.

How is resource best used to focus on what matters? What constitute meaningful measures of learning gain?

Overview

- Pedagogical potential versus implementation issues.

- Limitations of outcomes focused approaches.

- Methodologically – need to be mindful of garbage in garbage out (GIGO).

- Ethics – just because we can, should we?

Gaps

- Leadership gaps

- Higher education skills gap in Pedagogical Research Literacy

- Inadequacy of assessment -grades as inadequate measures of learning gain

Learning Gain Approaches

Use of specific measures to test understanding	**Balance of methodological rigour, high quality pedagogy, and feasibility**
Student satisfaction	
Use of data analytics	
Individual and group learning trajectories	
Role of individual difference variables on learning	
Impact of specific learning behaviours on learning	
Impact of pedagogical interventions	

Process

Emphasis needs to be on process.

Allows examination of structural issues impacting students' differential learning outcomes, and over time…

Focuses on students' learning transitions – the vital first six weeks require attention.

Measurement

- Need to be clearer about what we want to measure, why, and how.

- What are meaningful measures?

- Spotlights 'assessment adequacy'.

- LG needs to be embedded within the curriculum.

Research Literacy

Pedagogical Research Literacy – developing and valuing Integrated Academics.

Collaboration – Agreeing protocols and standards if we are to be able to replicate studies across fields and institutions in relation to specific variables.

Investing in Quality

Investment in Quality Professional Development – research- and practice-informed pedagogy drawing on disciplinary expertise

Integrated Leadership

Integrated Assessment (Evans, EAT, 2016)

Assessing Assessment

Authenticity, relevance, and validity of assessment…………………………….

Does assessment accurately measure learning outcomes?

Are we measuring things that matter?

Relevance and value of test outcomes?

Issues – qualities of a good test – challenge.

What is meaningful engagement?

LECTURER

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AD4: Ensure ongoing evaluation to support the development of sustainable assessment and feedback practice

AD 3: Ensure access and equal opportunities
Provision of Resources; Guidance; Network Development; Choice

AD 2: Promote meaningful and focused assessment
Fit for Purpose; Relevant Programme Level Assessment; Collaborative Design; Manageable

AD 1: Ensure robust and transparent processes and procedures: QA literacy

AL 1: Clarify what constitutes good
Standard of work; recognition and application of good academic practice; student and lecturer beliefs

AL 2: Clarify how assessment elements fit together

AL 3: Clarify student & staff entitlement
Student/Lecturer roles and principles underpinning the 'What', 'When', and 'How' of feedback

AL 4: Clarify the requirements of the discipline
Core and threshold concepts; deep approach

ASSESSMENT DESIGN

ASSESSMENT LITERACY

ASSESSMENT FEEDBACK

AF 1: Provide accessible feedback
Specific, and focused on how to improve. Encourage students to clarify their interpretation of the feedback

AF 2: Provide early opportunities for students to act on feedback
The pattern and timing of assessment, and alignment of formative to summative assessment

AF 3: Prepare students for meaningful dialogue / peer engagement

AF 4: Promote development of students' self-evaluation skills
Self-monitoring, self-assessment, and critical reflection

Integrated Academics

Integrated academics are needed who can take the best of research, appraise it critically, apply it through implementing contextually appropriate pedagogies, and through good design, use outcomes from practice to inform research.

(Evans, SRHE, 11 Oct 2018- "What makes for REF-able pedagogical research?"

Disciplinary Knowledge
Depth/breadth
Core and threshold concepts
What is meaningful learning within the
discipline – signature pedagogies

Critical Pedagogy
Evaluation of who is
ad/disadvantaged?
Reflection in and on actions
Reflexivity –ability to step
outside a situation.

**Pedagogical
Expertise**
Application of disciplinary
knowledge informed by
understanding of individual
differences.
Ability to integrate theory into
practice and evolve theory.

**Research
Methodology
Expertise**
Ability to interrogate findings,
and to use robust designs to
explore and evaluate own
teaching and research.
Embedding learning gain into
own approaches.

**Academic
Practice in HE -
Quality
Assurance
Literacy**

7
6
5
4
3
2
1

**Data Analytic
Competence**
Understanding of, and ability to
collect, analyse, and use data
appropriately, and to see potential
of data to inform learning and
teaching as integral part of
instruction.

**Contextual
Awareness**
Situation requirements
Nature and needs of students
–their varied dispositions and
starting points.

Integrated Academic

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Research Literacy – the "ability to judiciously use, apply and develop research as an integral part of one's teaching" to address:

- Lack of understanding of pedagogy within context to be able to apply research findings effectively.
- Lack of methodological rigour impacting credibility of findings, and raising ethical issues.

Routledge
Taylor & Francis Group

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INTRODUCTION

Building teachers' research literacy: integrating practice and research

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ABSTRACT

Supporting early career teacher (ECT) research literacy is essential in promoting research-integrated professional practice, however it remains an area in much need of development. This article discusses the importance and process of developing ECTs' research literacy, through establishing strong collaborative links between universities and practising teachers in schools. It is located within an English policy and educational context in which the role of higher education and schools in teacher education has been substantially altered in recent times. Two programmes, the *NQT and Beyond* and *Developing Resilience in Learning and Teaching,* are used to illustrate how ECTs can actively engage in and with research as they enter the teaching profession, and thus develop their research literacy. The design principles of these projects are used to demonstrate the potential of how a research-informed pedagogical framework based on the Personal Learning Styles Pedagogy, aspects of self-regulation and resilience, can facilitate research-informed learning and teaching. In supporting ECTs' research literacy, universities, in collaboration with schools, play an important role in supporting the sustainability of research and in enabling teachers to connect their own practice with the broader body of research knowledge. Teacher and pupil ownership of research is crucial in developing research-integrated learning.

https://www.tandfonline.com/doi/full/10.1080/02671522.2017.1322357

Waring, M., & Evans, C. (2015).

Understanding Pedagogy: Developing a Critical Approach to Teaching and Learning.

Abingdon, Oxford, United Kingdom: Routledge.

http://www.amazon.co.uk/Understanding-Pedagogy-Developing-critical-approach/dp/041557174X

This book provides overview of the Personal Learning Styles Pedagogy and the theories underpinning it and how you can use the core ideas in practice. It informed the development of the EAT Framework