Enhancement Themes

Evidence for Enhancement:
Improving the Student Experience

'Just enough? Why we need to question our assumptions about evidence'

Annotated Bibliography

Source: Biesta, G. (2007). Why “what works” won’t work: Evidence-based practice and the democratic deficit in educational research. *Educational theory*, 57(1), 1-22.

In this essay, Biesta provides a critique of evidence-based education by examining its key underlying assumptions. The author argues that it is not appropriate to apply the medical model of evidence-based practice as education is a non-causal process and practitioners need to make judgements about the desirability and morality of practice. Biesta contends that research cannot provide rules for action but it is capable of informing the decision-making process by providing information on what has previously worked in specific circumstances.

Source: Connolly, P., Keenan, C. and Urbanska, K. (2018). The trials of evidence-based practice in education: a systematic review of randomised controlled trials in education research 1980–2016. *Educational Research*, 60(3), 276-291.

This systematic review has attempted to identify and describe all randomised controlled trials (RCTs) conducted in educational research between 1980 and 2016, albeit restricted to those that were published in English. Of the 1017 RCTs identified, 81% reported evidence of intervention effects and 49% examined the effect of the intervention across subgroups of students. More than one-third of the RCTs included a process evaluation measure, such as interviews to ascertain the experiences and views of participants. The authors acknowledge that, while there is significant progress to be made, the findings challenge several assumptions about RCTs and conclude that they are appropriate for educational research.

Source: Dawson, P. and Dawson, S. L. (2018) Sharing successes and hiding failures: ‘reporting bias’ in learning and teaching research, *Studies in higher education,* 43(8), 1405-1416.

In this article, Dawson and Dawson discuss the pressure on researchers to use evidence selectively to skew findings in favour of giving primacy to 'what works'. The paper considers a

range of possible factors that can make higher education learning and teaching research particularly susceptible to reporting bias. The authors indicate that such factors can include: the fuzzy boundaries between teaching and learning research and scholarship; the need for funders to reap positive outcomes; the influence of contract culture on academic freedom. The paper makes some recommendations for how researchers, journals, funders, ethics committees and universities can reduce reporting bias.

Source: Groccia, J. E. and Buskist, W. (2011). Need for evidence-based teaching. *New Directions for Teaching and Learning*, 2011(128), 5-11.

In this book chapter, Groccia and Buskist argue that teachers need to adopt methods that are based on research-supported practice in order to improve students' learning. It was argued that any consideration of evidence from descriptive, quantitative and qualitative studies would help enhance practice. The authors also refer to seven 'evidence-based' principles that underlie student learning and academic practice.

Source: Hanley, P., Chambers, B. and Haslam, J. (2016). Reassessing RCTs as the 'gold standard': synergy not separatism in evaluation designs. *International Journal of Research & Method in Education*, 39(3), 287-298.

Hanley, Chambers and Haslam present two case studies where RCTs in educational research were used in conjunction with process evaluation measures, such as observation tools, engagement surveys and interviews. The authors accentuate the value of using these approaches together to consider not only 'what works' but 'why', 'where' and 'how', showing that this combination of methods can be more informative than using individual methods in isolation. A useful summary of the history of evidence-based education is provided at the beginning of the paper.

Source: Haynes, L., Service, D., Goldacre, B. and Torgerson, D. (2012). *Test, learn, adapt: Developing public policy with randomised controlled trials*. London: Cabinet Office.

In this paper published by the Cabinet Office, Haynes and colleagues call for more widespread adoption of RCTs in public policy to determine the effectiveness of interventions. The authors present this argument by alluding to the benefits of using RCTs - the ability to control the influence of external factors and the potential to reduce 'selection bias' - and by referring to real-life case studies to demonstrate their effectiveness. Guidance is issued on the steps that are required to design and implement an RCT.

Source: Itten, J. (1919) in F. Tierney (2010) Toward an eccentric (design) pedagogy. *Design Principles and Practices: An International Journal,* 4(1), 435-441.

This article examines pedagogic ideas emerging from the Bauhaus philosophy of deschooling or 'unlearning', which is characterised by finding a core essence of thinking, released and liberated from prevailing knowledge and power. Bauhaus master, Johannes Itten (1919) defined this as to: *free the creative powers and thereby the art talents of the students. Their own experiences and perceptions were to lead to genuine work. The students were to free themselves gradually from dead conventions and to take courage for work on their own* (cited

in Tierney, 2010, p. 437).

Source: Kuhn, T. S. (1962) *The Structure of Scientific Revolutions.* Chicago: University of Chicago Press.

This is a pivotal book in which philosopher Thomas Kuhn rejects objectivity and argues that science is essentially a subjective process. Consequently, he suggests that the way evidence is constructed needs to be re-evaluated. Kuhn draws upon Karl Popper's notion of false empiricism to indicate that a new scientific paradigm needs to be recognised; one in which episodes of revolutionary progress occur, rather than by the accumulation of factual evidence accruing over time. This work also aligns with Paul Feyerabend's notion of anti-science and anarchistic epistemology. For further exploration, see also: Feyerabend, P. (2010) *Against Method.* (4th Ed.) New York: Verso Books and Popper, K. (1959) *The Logic of Scientific Discovery.* London: Hutchinson.

Source: Levin, B. (2013). To know is not enough: research knowledge and its use. *Review of education*, 1(1), 2-31.

This paper reviews existing literature and findings on the relationship between research, policy and practice in education. Levin presents a conceptual framework that explains how knowledge mobilisation occurs through social interactions and collaborations between three groups: the producers of research (for example, universities), the users of research (for example, practitioners) and those involved in connecting research and practice (for example, research centres and think tanks).

Source: Nelson, J. and Campbell, C. (2017). Evidence-informed practice in education: meanings and applications. *Educational Research*, 2(59), 127–135.

This editorial presents a summary of papers that sought to address questions relating to the definition and measurement of evidence-informed practice and to identify strategies that enable effective knowledge mobilisation. There was general agreement across the papers that evidence is comprised of professional judgement, system-level data, classroom data and research evidence. Nelson and Campbell affirm the importance of collaboration, communication, dissemination and capacity building for stakeholders to understand and apply evidence effectively.

Source: Thomas, G. (2016). After the gold rush: Questioning the “gold standard” and reappraising the status of experiment and randomized controlled trials in education. *Harvard Educational Review*, 86(3), 390-411.

In this article, Thomas draws upon examples of systematic inquiry in education to raise several concerns about privileging RCTs as the 'gold standard of evidence'. While acknowledging their suitability for testing simple propositions, the author states that RCTs on their own: are not appropriate for evaluating ‘real-life’ interventions and accounting for the complex social and personal processes in education; diminish the importance of diversity in research designs; disengage inquiry from practitioners. Thomas concludes the article by urging researchers to use a mix of complementary research methods to answer the research question being explored.

Source: Williamson, B. (2018, November 14). Policy in numbers – what counts without counting? [Blog post]. Retrieved from https://wonkhe.com/blogs/policy-in-numbers-what-counts-without-counting/

In this blog post for Wonkhe, Williamson provides a useful commentary on the sector's growing obsession with performance metrics and measurements of students' learning and experiences. In response to increasing distrust of data, the author highlights the need for practitioners and policymakers to combine quantitative data with qualitative narratives and for co-production with students and staff to generate new evidence in Higher Education.

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