

0208

The rebirth of research as curiosity?

Stephen Gorard

University of Birmingham, Birmingham, United Kingdom

Background

This paper presents a number of current examples of research practice to question whether researchers are really curious about the issues they research and whether they are genuinely trying to find out anything at all. It would not seem that people use these esoteric and illogical approaches to research for important issues in their everyday lives (where they may suffer real consequences as individuals). They only use them for education research. What is it that they are doing wrong, why do they do it, and how does it matter?

Research Questions

The paper is based on a number of recent projects and innovations in research methods. Some concern issues of measurement and numeric analysis. For example, the widespread confusion between the measurement of observable events and the habit of assigning numbers to imagined events (including perceptions, attitudes, and intentions) has possible dangers. These dangers include the opportunity costs of conducting research with flawed techniques when the time, money, effort, and access to research sites could have been used to better effect. They include the vanishing breakthroughs that occur when insecure research knowledge is rolled out into policy or practice (Harlow et al. 1997). Perhaps almost as importantly, the possible dangers include the ethical and methodological distortion of new researchers by their mentors. Let the pendulum swing back a little towards scepticism about the easy allocation of numbers to things, and about the replacement of the basic pre-technical steps in creating a measurement by increasingly complex models and techniques. Let us think a little more (but a little less defensively) about the real process of measurement. Perhaps we can then help build the capacity to find and use appropriate measures in social science, that will be of genuine help to the societies we are ostensibly doing the research to benefit.

Methods

As another example, the current practice of testing for statistical significance in social science research is based on a widespread confusion between two conditional probabilities. A worked example and other elements of logical argument demonstrate the flaw in statistical testing as currently conducted, even when strict protocols are met. Assessment of significance cannot be standardised and requires knowledge of an underlying figure that the analyst does not generally have and can not usually know. Therefore, even if all assumptions are met, the practice of statistical testing in isolation is futile. The question many people then ask in consequence is - what should we do instead? This is, perhaps, the wrong question. Rather, the question could be - why should we expect to treat randomly sampled figures differently from any other kinds of numbers, or any other forms of evidence? What we could do 'instead' is use figures in the same way as we would most other data, with care and judgement. If all such evidence is equal, the implications for research synthesis and the way we generate new knowledge are considerable.

Frame

However, there are other concerns of equal importance in the use of untestable theory, and ungeneralisable evidence. Perhaps the biggest problem we face in the field, and for the REF, is the apparent lack of a coherent relationship between research quality and relevance. This point is illustrated with reference to recent high profile work that has led to actions with actual and opportunity costs and that may even harm what they set out to improve.

Research findings

The presentation ends by asking for a rebirth of educational research based on curiosity, and begins to suggest some of the implications of doing so for the preparation of early career researchers.