

I will speak about quality in education research from several interrelated perspectives: as a faculty member located in a college of education in a large American research university; as a cross-national researcher of early childhood education; and as a (frequently frustrated) member of the National Academies of Science Committee on Research in Education. From these perspectives I will argue that the recent efforts to raise the quality of educational research in the U.S. have been characterized by a sense of panic, sloppy metaphorical thinking, and a hesitancy to examine the connection between research and politics. I will argue that each of these problems contributes to the difficulty of finding common ground across the varied epistemologies, paradigms, and disciplines that make up the field of education research. Whether any of the problems I describe in the US fit the situation in the UK is not for me to say.

## I. Introduction

My starting assumption: education is a topic and a concern, not a discipline. Therefore the methods and theories used in education research necessarily must come from various disciplines, some of them scientific, some of them not scientific (humanities, interpretive social sciences, etc).

I will focus not on the quantitative/qualitative binary, which I think is relatively unproblematic these days, but instead on the much more problematic divide between scientific and interpretive approaches. The real tension is along the fault line that separates those who think of what they do as science from those who think of what they do as something else.

## II. Problems in the US discourse on improving the quality of education research

### A. Understandings of science.

The assumption, sometimes stated, sometimes implicit, that science equals rigor and that scientific methods are the only rigorous, empirical, epistemologically sound methods for conducting research on education.

The idealization and over-simplification of scientific research by those who would use a narrow definition of it as the “gold standard” for research in education.

The metaphorical application of the wrong scientific disciplines (e.g. chemistry and engineering rather than geology, evolutionary biology, or cosmology).

B. The fallacy of the medical metaphor (“If medical research were still being conducted like educational research is today, we’d still be getting treated with leeches.”)

The idealization of medical research, medical practice, and the relationship between the two (for example, studies showing that up to 70% of prescriptions written by doctors are incorrect, in the sense of inconsistent with the medical literature).

In the application of the medical metaphor to education, the confusion of the preparation of doctors (which is based on standardized training and certification) with the preparation of medical researchers (which has no standardization, which is one of its great strengths).

Application of the wrong medical models (e.g. educational research is more akin to understanding causes and treatments of obesity than it is like evaluating the efficacy of a drug or a surgical approach).

C. Idealized, naïve views of the relationship of research to practice.

Too linear.

Too decontextualized.

Too hierarchical.

Based on little or no evidence that scientific research ever gets transformed into practice in the ways being called for or that “evidence-based practice” and teaching based on “scientifically proven methods” have significantly improved education in any nation or education system. The attempts in the US to create a system of education based on the application of results mostly from random assignment studies is itself an educational practice being imposed without scientific or other kinds of evidence that it will work.

D. Politically naïve and/or disingenuous: accusing non-scientific research as being ideological but not seeing scientific research as also ideological or the call for more scientific research as also ideologically driven. The authors of *Scientific Research in Education* saw no need to address the growing influence of politics into definitions of educational quality or to problematize the publication of a report that criticizes the quality of education research and praises scientific research as a moment in Washington when the term “scientific research” is being wielded as a blunt political weapon. A glaring example is the inclusion in SRE of scientific studies of early reading with no mention of the ideological and political nature of the reading wars that are raging in the U.S. between proponents of “whole language” and “phonics.”

E. Parochialism: The science being called for and funded by the new U.S. Institute of Education Sciences is for the most part a science of what works in the context of education in the U.S. What kind of science confines itself to national boundaries?

### III. Afterwords

A. Despite my critiques of the critics of educational research, I believe that education research in the U.S. is, in fact, weak, for several reasons:

There are far too many education researchers and too much education research, much of it done by people who are not well trained or highly motivated to conduct research. There are far more professors of education than of, say, philosophy or anthropology because schools of education need a large faculty to train teachers. But because even non-research oriented teacher training colleges require faculty to publish and a doctorate is required for all tenure-track faculty positions, there are thousands of faculty members in schools of education in the U.S. who are compelled to publish even if they have no real talent for or interest in doing so.

As David Labaree argues, many of the doctoral students in schools of education, especially in departments of curriculum and instruction, were once classroom teachers. In theory, this should facilitate the production of scholarship on classroom practices. But in reality, Labaree argues, graduate students who were once teachers have a difficult time letting go of their over-reliance on personal experience and teacher's intuition and to think in more abstract terms.

Of the disciplines that should contribute to education research, one discipline, psychology, has an inordinate influence leading to a plethora of second rate psychological and psychometric studies.

B. We need an alternative model of how educational research impacts practice and vice versa. Rather than a linear model that can be easily sketched out on a flow chart but which has little connection with reality, we need to develop models for the connection between education research and classroom practices that are more complex and realistic. For example, to the degree my own comparative research on early childhood education in Japan, China, and the United States has had an impact on the field, I would argue it is not via a linear process of first persuading scholars with scientific evidence who then persuade policy makers and practitioners but instead by directly addressing practitioners with evidence that questions taken-for-granted assumptions; expands the repertoire of the possible; and rehabilitates disparaged practices and ideas.

C. As my colleague Michael Niles suggests, we should be calling for not (only) "evidence-based practice" but "practice-based evidence."