

Other scientific research

For half a century, educational researchers have also conducted descriptive studies that present the rich and complex context in which teachers and students work. For instance, what is it like, on a daily basis, to be a student in a “last chance” algebra class in a comprehensive high school? They have also done critical work that looks at the effects of power imbalances as a result of, for example, race, class, gender and sexual orientation. For example, how do we explain the inequities involved in assigning mostly minority students to low-track English classes? Finally, researchers do deconstructive work that questions the taken-for-granted categories and concepts used to organize knowledge and practice in education. For instance, where did the category “special education” come from and who benefits from it? What happens to children who are placed in this category? What is the danger in thinking this category is “real”? When the research described above involves face-to-face interactions with people through interviews or on-site observations, it is called qualitative research.

During the 1970s and 1980s, educational research experienced the paradigm wars, when those who supported rival research methodologies argued their cases. Some researchers believed that experimental research grounded in theories of positivism could not answer important questions and began to use qualitative research that is grounded in other theories, for example, social constructionism, phenomenology, feminism, race-based theories and postmodernism. Some experimental researchers called qualitative research pre-scientific or interesting but not good science. Some qualitative researchers called experimental research narrow and too concerned with prediction and control.

National Research Council

Since NCLB, we’ve seen a resurgence of the debates about methodology and epistemology that occurred during the paradigm wars because the federal government’s definition of scientifically based research applies chiefly to experimental research. As scientifically based research was installed in public law and federal policy, concerns were raised that experimental research could have a detrimental impact on educational research, policy and practice. The American Educational Research Association (AERA), for example, issued a statement that expresses “dismay that the Department of Education through its public statements and programs of funding is devoting singular attention to this one tool

of science [randomized trials], jeopardizing a broader range of problems best addressed through other scientific methods.”

In the midst of the furor, the National Research Council, the operating arm of the National Academy of Sciences, organized a committee of experts to address the issues. After deliberating for about eight months, the committee wrote a consensus report, *Scientific Research in Education* (2002, National Academies Press), that attempted to define quality educational research.

Instead of calming the waters, the report roiled the research community. Critics felt that, though the report claimed to support qualitative research it, in fact, did not. Key educational research journals published special issues of critique and many qualitative researchers said they seemed to be in a time warp, reliving the paradigm wars of 50 years ago. Some critics have argued that the National Research Council report both ignores and rejects certain epistemologies, especially those produced by scholars who belong to the vulnerable populations whose children are being left behind. But, as Feuer says, the debate has forced the educational research community to take a hard look at itself, which is not a bad thing.

Scientific evidence

The National Research Council’s next step is to extend the work of its earlier committees that looked at the nature of science by organizing a committee to look at the nature of behavioral and social science evidence for policy and will also examine standards of evidence applicable to policy-oriented research. The committee will address such questions as: Does pursuit of the “gold standard” of evidence create a risk that even the best available evidence will not be considered sufficient as a basis for policy decisions? How can rigorous findings be made available to policymakers when they need to act? This committee’s report could have a profound effect on educational research, policy and practice; and, whether justified or not, these reports take on an air of truth that academic debate cannot dislodge.

The effects of scientifically based research

The increased accountability based on scientific evidence mandated by NCLB and other federal legislation has had serious effects on much of our work in education. For example, the National Research Council has organized a committee to look at teacher preparation programs. Are we preparing

teachers based on the best evidence? AERA, notwithstanding its earlier concerns about scientifically based research, formed a committee to write standards for how researchers report their studies in AERA journals, and the early drafts of those standards are clearly grounded in positivism and experimental methodology.

Some university researchers worry that they will be told to train the next generation of researchers in a particular “scientific” methodology — that curriculum in universities will be controlled much as it is in public schools. The concern that one particular group has the power to define what counts as good science for everyone else has had ripple effects throughout education, especially when all decisions are supposed to be based on science.

UGA qualitative researchers respond

In the spirit of the best science that values rigorous, excellent work in many paradigms, the University of Georgia’s College of Education supports and encourages students to study a broad range of scientific methodologies with outstanding research faculty. In qualitative methodology, for example, UGA offers a university-wide certificate program and has sponsored an international qualitative research conference for 20 years. Many of our graduates go on to develop qualitative research programs in universities across the country.

Acknowledging UGA’s international reputation in qualitative methodology, Feuer encouraged our qualitative research faculty to take a leadership role in the scientifically based research conversation by publicly addressing standards for qualitative research since some critics say they don’t know what those standards are. The faculty accepted his challenge and has written a paper that will contribute to the debate.

Individual UGA faculty, experts in a variety of research methodologies, serve on national and international committees, including National Research Council committees, that influence the future of research in education. Our ethical and political challenge in teaching and research is to acknowledge the importance of using different methodologies to produce different kinds of knowledge in order to further our understanding of this complex project we call education.

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