

Feature Article

Educational Research: You Can't Get There From Here!

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Incorporating an old “Down Maine” punch line in the title of this paper may appear overly casual, but it is part of the message. In what follows I assume, first, that research in adult education is a member of the larger “educational research” family and, second, that, so to speak, educational research lost its way. Many of its priests and prophets fell by the wayside as it wandered in the “wilderness” of educational confusion, their promises and prescriptions having failed. Starting fresh, however, with a good dose of history, you who are concerned for research in adult and continuing education can, I believe, find your way again, avoid those skeletons, and exorcise once and for all the ghosts they have left behind. I hope you will.

To begin, I want you to come back with me to the birth of contemporary educational research. As is frequently the case, it was born in crisis. By the 1870s the radical new notion of a universal, compulsory, tax supported, public school system was already under attack, only two or three decades after its nearly universal adoption. It had grown virtually exponentially, both in scope and numbers. Elementary students alone soared from seven and one-half million in 1870 to more than fifteen million by 1900, while secondary enrollments leaped more than five-fold. Elementary teachers increased from two-hundred thousand to four-hundred twenty-three thousand in the same period. (So unstable was the “profession,” however, that by 1913 needed replacements helped push demand to more than eighty thousand new teachers a year.) Most importantly, a sizeable body of critics and investigators found that schooling simply wasn’t working. By the 1890s Joseph Meyer Rice (1893) had ripped the smiling face off the

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enterprise in a series of investigations, involving hundreds of teachers and thousands of students in thirty-six major cities, that left the nation appalled. Children couldn't read, couldn't write, couldn't count, and couldn't spell. Worst of all, teachers didn't know what they were doing.

At the same time, of course, the nation itself was in crisis. There was very little gaiety in the 90s, except for the few: Financial crises of world proportions; a socially and personally wrenching transformation from an agrarian to an industrial economy; waves of immigrants, dumb and dangerous (more than twelve million between 1890 and 1910 alone); a cancerous social-economic situation that reduced social structure and government to impotent shambles.

The good, old American answer, still echoing from Horace Mann, was education and schooling. More, of course, but also *radically* different. We must, many said, jettison all the old theological and philosophical "baggage" and adopt a two-fold strategy. Education must (1) become a science and (2) be put in the charge of business men (see, for example, Rice, 1969). After all, it was precisely that combination of applied scientific knowledge and entrepreneurial organization that was transforming the nation underneath all its pain and trauma: It was bridging the unbridgeable (in Brooklyn), bringing oceans together (in Suez and Panama), creating new forms of energy, providing instantaneous communication, crossing the continent and the seas in days rather than weeks—to note only a few of its miracles.

And, providentially, the tools were in hand: Darwin, properly understood, had proved that human beings were *in* the system of "Nature" rather than superior to it and that deliberately manipulating any organism's environment could change that organism. Francis Galton (1952; see also Galton, 1894, 1908) had shown that something now called "statistics" could be applied to something called "traits" and the right kind of people could be *produced*. Karl Pearson (especially in his enormously influential *The Grammar of Science*, 1892) had persuaded many that there wasn't anything real that science couldn't do. Edward Lee Thorndike would soon echo that what it couldn't do was *not* real and could safely be ignored or forgotten.

Perhaps of the greatest practical impact, however, was the meteoric rise of the science of psychology, the science that promised to explain human beings and give the "laws," as Thorndike put it, for "producing" the desired changes in human nature—after all, this was what "education" was all about. Give us psychology, he and others proposed, as the Master Science to control educational theory, emphasize observation and mea-

surement, and give the schools to the business men to make them more "efficient" by the application of virtually identical tools, and all will be well, in a few years . . . well, perhaps in a decade or two . . . or, well . . . ! But more about that in a moment.

To make a very long story very short, the troops were conscripted and captained—the military metaphor was preferred—and, newly armed, they galloped off to their labs and, eventually, even went to some schools. Making every teacher into a scientist at first looked promising, but it never worked. Yet no aspect of school or society escaped their efforts. They surveyed, counted, and measured everything in sight, from the individual students to whole school systems, surveying one hundred, twenty-five of the latter from 1908 to 1918 alone. Respecting the former, the thoroughness of their research was demonstrated at the University of Chicago's Primary School. There, besides multiple measurements of sight and hearing, further measurements were made respecting "feeling," including "determining the minimum of discernible pressure, the span of double touch, discrimination of weights, using active listening and passive pressure, and the ability to discriminate different temperatures." "Smell and taste" were also tested and "motor measurements were made of the strength of grip, and also tests in reaction time." As if that were not sufficient, "in addition to the above tests, anthropometrical measurements were taken in connection with the gymnasium," all in the belief they would have "pedagogical value" (Smedley, 1896-1897, pp. 85-86). Two particular goals, however, seemed primary, plausible, and obtainable: (1) Figure out just how children learn and (2) figure out just how teachers should teach, usually by the appealing but misguided notion of simply inverting the answer to the first question.

What were the results, now a century (and countless thousands of experiments, monographs, grants, and promises) later (for a fuller examination of the process and its achievements, see Johnson, 1984)? When the nation was again solemnly and officially declared "at risk", and Mr. Reagan promised to fix it, the problem was easy to diagnose: We (the educators) had, apparently perversely, ignored all that beautiful science and just not applied it! The solution: Put "what works" in a book and get it out there (McKinney, 1984). The only trouble was that the (no doubt largely unread) opening pages to *What Works* had to confess that, unfortunately, we didn't quite know exactly what works, but we were getting there!

As my Swedish grandmother was wont to phrase such situations, "What is this for a science?" After actually more than a hundred years of

effort, educational research is, in the words of those insightful iconoclasts Postman and Weingartner (1973),

a process whereby serious educators discover knowledge that is well known to everybody, and has been for several centuries. Its principal characteristic is that no one pays any attention to it. This is unfortunate because it is quite important that school people be reminded of simple and venerable truths. (p. 127)

Now, red flags had been going up all along, as I will show in a moment. But what had, over the years, itself become an enormous business, educational research, was not about to vacate the generous premises it now occupied. Sustained by its large faith and even larger money supply, it pleaded—and still pleads—for a little more time and a lot more money, and it will produce what we “want.”

It's time we get a little money back and look at the record. I will take you quickly through the “teacher/method” history (though I could do the “learning theory” history just as easily). Superintendent T.W. Balliet had asked the basic question at the NEA meeting in 1894: “What can be done to increase the efficiency of teachers in active service?” Between 1894 and 1950, over a thousand “major discussions” of efficiency (or its modern equivalent, “competence”) appeared in the “literature,” as well as a number of highly instructive periodic reviews. First, it was thought that the real professionals (the superintendents) could observe and “rate” their teachers and then distill what they found from their traits into the “best method.” An alternative was tried by H. E. Kratz: He let more than 2,400 pupils characterize their best teachers and tried to build on that. In the 1940s educational scientists—taking refuge, I suppose, behind the law of large numbers—solicited from some twelve thousand school children letters describing their teachers, but, when they didn't produce anything significant, decided to ask the “Quiz-Kids” instead! Junius Merriam correlated student achievement to strengthen the attempt. It still wasn't working. Next, researchers were told to look at teacher “failures.” That didn't work either (Johnson, 1984).

A.S. Barr, a distinguished pupil and protege of Thorndike, despairing, like many, of almost everything that had gone before, said we needed tougher science—more detailed “variables.” He surveyed the field of research on teaching in 1931, and again in 1940, and again in 1948: “The product sought is not too well defined in most instances,” he said. We need to know more about how “traits, competencies, and behavior controls

function to make a good teacher.” Better statistics would help as well. We just couldn’t yet find what Thorndike had called the “component ability atoms” upon which we could rebuild the enterprise (Johnson, 1984).

The careful *reporters*, then, reported that it wasn’t working. The seminal thinkers and researchers were also growing ever more doubtful. Harvard’s Hugo Munsterberg (1898a, 1898b, 1898c) had protested it from the beginning. As early as 1914 one of the nation’s premier educators, William Chandler Bagley, was already clearly pessimistic:

Twenty years ago, when I began the study of education, I was convinced its problems could be adequately described, formulated, and solved in terms of nerve cells and fibers. These concepts of physiological psychology had their brief day and added their small mite to educational theory—a day much briefer and a mite smaller than I dreamed of at the time. A little later, experimental psychology, with its distinction between the motor-minded and the eye-minded, held the field. Then genetic psychology, with its culture-epoch-parallelism, came and went in its turn leaving behind it a host of disappointed hopes and a few grains of precious truth. And today *a veritable host of abstractions are clamoring for educational content to give them meat and substance* [italics added]. (p. 164)

Looking back over a lifetime of efforts, Chicago psychologist Charles Judd sadly acknowledged that all the “perception” studies, and all the other rigorous experiments whose results he had faithfully communicated to the teachers and administrators, just hadn’t amounted to much. He also remembered something that might have made a difference: Encountering, as a young man, the great William James on one of his New Hampshire walks, Judd had asked the big question: “What is the place of psychology in education?” After a pause, James said: “I think there are about six weeks of it” (Judd, 1961).

John Dewey, at ninety, surveying another lifetime of effort (beginning in philosophy, then into psychology, and finally back into a new philosophy and psychology), wrote the following to one of his correspondents in 1949:

I have been convinced for a long time that the obsession of psychologists with *quantity* is both a cause and an effect of the backwardness of that subject. A quantitative statement with no theory to determine *what* is being measured would justify calling the “measuring” of all cracks in the plaster of my wall “science” if it were done with elaborate

statistical technique. To hell with it—but unfortunately they hoodooed the Foundations' Directors, who have little idea of what *Scientific Method* is, joined with a superstitious respect for what they think is science—with an extra big capital letter. (Cantril, 1960, p. 191)

But, of course, we are still talking forty years. Perhaps, in the intervening decades, the gold ring has been found? The American Psychological Association bade farewell to Skinner at a special memorial session, but his impotent ghost still walks the halls of the foundations and the colleges of education. Foundation executives and boards, as Dewey noted, and college deans as well, don't like bad news. Thanks to its origins in Kant and Dewey, Piagetian work has borne some important fruit. The rest of our rich history in psychology, however, sadly lies still largely untouched. Howard Gardner has cast aside most of the once popular categories in order to get to what he sees actually goes on in the educational process, dismissing as he goes much of the results of the past as of scant value, a victim of its preoccupation with measurement. Gardner (1993) notes that "researchers have become increasingly critical of psychological theories that ignore crucial differences among the contexts within which human beings live and develop" (p. xiii; see also Egan, 1983; Gould, 1981). And, most recently, one of the most significant developments in this long story has occurred: Jerome Brunner's powerful little book, *Acts of Meaning* (1990). Looking over *his* lifetime, Bruner says, in effect: We thought behaviorism would do it. It couldn't. I then thought that something called "information processing" would pull us out. But then I realized it was just a slightly disguised behaviorism and it won't work either.

Why? How can a "science" of education prove so sterile for so long? The point is the following: The particular psychologies which have virtually determined educational research were those which best fitted the prescriptions of the technocratic businessmen who wanted an efficient "educational" machine to do the work. But these psychologies were, and are, simply incapable of taking account of the fullness of human nature and human existence—the stuff of which education is about. In fact, *education has no master science* and psychology is *not* its name. *Educational* research needed precisely what it so casually threw out: It needed philosophy; it needed history, in every sense of that rich term; and it needed to stay where *education* was—in the fullness of human life.

We are, of course, talking here especially about *adult* education and continuing education. The problem for adult education is two-fold. First,

understanding *adults, educationally*, entails an exponentially richer *context* (social and cultural) than even that necessary for children, rich as that is. Abstract representations of it, or monocular reductions of that process, will not work, cannot provide that *sitz-im-leben* that leads to understanding and moves from understanding to intelligent theory and practice. However, beware! Adult education, once ignored but now decreed important for economic reasons, may covet its long-denied respectability, and educational respectability still implies (for the historically and philosophically naive) the demonstrably fruitless attempt to mimic “hard science.” That deceptive goal still hasn’t been thrown into the hell Dewey quite rightly said it deserved. My counsel: Do not make the same mistake! In fact, it isn’t even good science.

Now, I hope it is clear that I am not maintaining that social or behavioral science (or any other kind of science) is either illegitimate or of no value to education. We should, indeed, pay attention and, as Thomas Huxley once said, follow truth “as a little child” to see where it actually leads. The problem is that what we have witnessed is the substitution of relevant and useful modes of knowledge in one enterprise for those appropriate to another, usually to the detriment of both. In this case the effect is, I believe, doubly pernicious because, in doing purportedly *educational* research, this sort of category transference and imposition not only produces the curious history I have outlined but often renders the education and schooling under examination virtually unintelligible. When we think we need pay little attention to thoughts, or words, or particular actions, except insofar as to spot something that enables us to assimilate that person or event (by ignoring the details, the concrete particulars that render persons or acts unique) to some already existing conceptual and explanatory structure, likely drawn from some other universe of discourse and activity, we lose the very thing we are looking for.

The question is: What alternative is there? The problem is an ancient one: How are we to handle, to keep in relation, the universal and the particular, the continuities and the discontinuities, the singular and the plural? That is the problem William James approached in his *A Pluralistic Universe* (1943). James’s problem is not, of course, precisely ours, though I think what he is doing is relevant both to education and to our particular research quandary. He is concerned largely with the adequacy of the then reigning monistic and intellectualist idealism in giving any account of ordinary experience that we could, as human beings, find in any sense “real” or fruitful. James proposes that we adopt instead a “radical empiricism” that adequately confronts the varieties of thought and expe

rience evident in concrete human existence. I think he is correct.

For James concepts lay out “points” which are not necessarily grounded in the nature of things but more commonly reflect the intents and goals of those who construct them. Such abstract points are the result of “flying” over the surface of reality on the wings of abstraction, “skipping the intermediaries.” “Skipping” and an occasional “perching” can be useful, but that sort of procedure is dangerous when the theoretical formulations that result are virtually reified. Life, meaningful human experience, is continuous and “burly,” as he puts it, not merely an aggregation of points. To grasp adequately its meaning, we must patiently plough or wade through the intervals, not falsify reality for our purposes, however beguiling that temptation can become (James, 1943, pp. 217, 245-252; see pp. 349-350).

The upshot for all of us who hope to be educational researchers is sufficiently patent not to require elaborate treatment. When we are dealing with reality in terms of concrete human experience—as surely we must do in respect of education—the most dangerous thing we can do is “thin” it out, says James, that is, to falsify it by the indiscriminate use of theories that draw from real persons and events all the numberless connections and particularities that we encounter when we wade through the actual “thicket of experience.” Because real experience is, as James insists, “thick” and “burly,” what we must have are thickened educational theories, theories which come *from* experience rather than merely being *about* experience (James, 1943, pp. 135-139, 232-241; see pp. 312, 331). To achieve them, we must also make use of all modes of knowing and making sense of things, not substitute (for the sake of neatness and efficiency) some single scientific epistemology or method of inquiry. Adequate educational thinking, because it must be reflectively bound to the wholeness of human life, cannot put aside the complexity of thought forms that parallels that complexity and remain either meaningful or useful.

As James himself sums the matter up in the final paragraphs of *A Pluralistic Universe* (1943):

I have now finished these poor lectures. . . . My only hope is that they may possibly have proved suggestive; and if needed they have been suggestive of one point of method, I am almost willing to let all other suggestions go. That point is that *it is high time for the basis of discussion in these questions to be broadened and thickened up.* (p. 330)

Like the philosophers of James's day, too many "researchers" in our day proceed "as if the actual peculiarities of the world that is were entirely irrelevant to the content of truth." "But," as James says, "*they cannot be irrelevant* [italics added]" (p. 331). And that, I want to suggest, is what we have to have for better history, better psychology, better education—and, above all, better adult education research. My message, then, in six words: Broaden it and thicken it up!

Notes

I am indebted for this interesting reference to my long-time friend and collaborator, E.V. Johanningsmeier, whose persistent "research on research" will also be of great benefit to anyone with an interest in these matters.

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