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THE USE, MISUSE, AND MISUNDERSTANDING OF RESEARCH

Problems With Reports

Problems With Research

Summary

As promised at the outset, we will now make a brief excursion into the dark side. Lurking there are the problems that affect how people read, understand, and try to use research. The place to begin is by asking: "Why is it, exactly, that most people do not read research reports, either with or without the experience of having received some relevant education?" It is not difficult to invent hypotheses that sound at least plausible. Is the neglect a consequence of the fact that it is impossible to read research without specialized training? Could it be that people just never encounter reports or material drawn from reports in their everyday lives? Is research perhaps not sufficiently valued within the context of our culture?

Or does the real explanation for the near-universal avoidance of research reports (beyond the circle of those who produce them) lie in the fact that there is no practical purpose to be served by wading through pages of dense prose? That is, once outside the rarefied realms occupied by scientists and academics, is it possible that there is nothing of real utility to be extracted from reports as primary sources? Finally, might the

answer rest in the fact that it has become sufficient for most people just to hear or read the occasional references in the media to "researchers have found that . . ." or "research has shown that . . ."?

It will not surprise you, we are sure, to learn that our answer to all of these rhetorical questions is a resounding *"no!"* We think that there are false assumptions behind some of the questions—and the answers they imply. More important, we believe that anyone who accepts such explanations has adopted a naïve and even dangerous view of the knowledge that is required to function as an informed citizen, much less the understanding that is important to live an examined life.

Taken in sequential turn, the following five assertions are our own responses to the hypotheses previously offered for the neglect of research reports: (a) Specialized training in how to do research is not required to read reports in many fields; (b) the media are saturated with references to findings (or alleged findings) from research, and journals crammed with reports are easy to find (even on the Internet); (c) this is a culture in which many people revere the processes (and fruits) of science; (d) practice in an enormous range of vocations and professions—from teaching, nursing, and social work to parenting, sales, and agriculture—can be informed by what is contained in research reports; and, finally, (e) limiting yourself to what other people tell you about research findings means giving up an important part of your independence—and responsibility.

Some people, both professionals and laypersons, are served by intermediaries who translate research into prescriptions for action, such as the agricultural extension service and many professional magazines. For the vast majority of people, however, if they are to use research-based knowledge to improve the quality of their work, the decisions they make, and their understanding of the world, only television and the popular press can serve as sources. We think that the accounts of research results provided through such media sources are sometimes useful but are also often insufficient—or even misleading. In any case, limiting yourself exclusively to interpretations of research by other people is unnecessary. You can read and understand original reports in many areas of inquiry—and draw your own conclusions.

Our efforts to persuade you on that final point wind through the 13 chapters in this book. One particular discussion, however, serves as a useful entry point, so we pursue it here as the final note of introduction. Whatever we might hold to be true about research—its benign and beneficial nature and the surprising extent of its accessibility to the layperson—there is no denying that, among many people, it has acquired

a very bad reputation indeed! That negative public image, we believe, is the real answer to the question "Why don't people read research?"

There are two levels at which a degree of public disaffection serves as a barrier to the use of research reports as a source of information. The first is engendered by the recondite nature of the reports themselves. At a second and deeper level, however, are the doubts that some people have about the processes of research itself, including the appropriateness of privileging research-based knowledge over other sources of truth.

The two barriers have their roots in quite different and seemingly unrelated problems. One might, for example, have great difficulty making sense of reports but maintain a fervent faith in the use of "scientific" information as the basis for wise social policy. One might also have considerable facility in reading research but believe that other sources of truth must be given priority. Whichever barrier is operative, the end result is the same—avoiding any firsthand encounter with research.

※ PROBLEMS WITH REPORTS

The first barrier, the supposed inaccessibility of reports, is at least well understood and is a widely shared experience in our culture. For that reason, let us begin there. Of all the impediments to reading research, there are four that adhere directly to the documents themselves: specialized jargon, perceived level of intellectual demand, lack of self-evident validation, and difficult retrieval.

People simply do not understand why reports cannot be written in plain English. For the outsider, reading becomes a problem of translation as well as one of comprehension. The problem is more than mechanical, however, because the impenetrability of specialized language leads to skepticism about the motives of researchers and, thereby, to a devaluing of results. The fact that there are rational ways to defend the use of unique system languages in different disciplines (a point we explained in Chapter 3) does little to remove the perception that reports are full of jargon and therefore too difficult to read.

A related problem rests on the belief that one needs both specialized training in academic subject matter and exceptional cognitive skills to understand the information that reports contain. Not only is it presumed, then, that you have to know the territory in technical terms; it is presumed that you have to be smart as well. The former confuses

what is sometimes helpful with what is always necessary, whereas the latter confuses innate intellectual capacity with acquired know-how. These misunderstandings make lack of self-confidence an endemic problem, and they are the first hurdles to overcome in teaching people how to read research.

Next, nearly every novice comes to the reading task with two unspoken questions: "Is this good research?" and "How am I supposed to tell whether it is or not?" Unhappily, there is no guarantee to accompany each research report that can certify the quality of what is contained therein. As we explained in Chapter 2, certain indicators warrant greater confidence in reports from particular studies. Use of those signs, however, is neither as simple nor as definitive as we might wish, and many potential research users are left with the question "If I can't tell good from bad, how can I trust any of it?" Unanswered, that question alone deters many people who might otherwise look to research for helpful information.

Finally, although research reports have become widely available from a number of sources, learning to operate modern retrieval systems to find studies on a particular topic requires time and, in most cases, some initial assistance. Although research is not hiding under a rock, it rarely falls into your lap, either. It might be men who hate to ask for directions when driving a car, but almost everyone hates to admit that he or she is utterly lost in a library. This fact is one more reason that, once filed away on library shelves, research reports are more likely to gather dust than gather consumers.

Now that you have an understanding of some of the problems that are intrinsic to the nature of reports themselves, we want to turn your attention to barriers that are more (if not wholly) associated with how people understand the research enterprise itself and research products in general. These difficulties are of a different order, but one of their common consequences is the erection of a barrier between people and research-based knowledge. If the processes of research are not trusted to feed a reservoir of important truths, why would we expect anyone to spend time reading reports?

❋ PROBLEMS WITH RESEARCH

The problems with research arise from six perceptions, some widely held and others found more exclusively within certain social groups: complexity

of results, conflicting results, trivial topics, impractical studies, absence of commitment and caring, and conflict with other sources of truth. The first of these, complexity, is a characteristic not only of research-based knowledge structures but also of the way scholars think.

As Cooper (1996) trenchantly observed, in the social sciences, "the emphasis in research is as much on 'why,' 'when,' and 'for whom' as on 'whether or not'" (p. 31). For people on the outside, however, exceptions and contingencies serve only to muddy the waters. The characteristic "it depends" conclusion found in so many reports, as essential as it may be to the precision of science, serves to undermine the perceived utility of results, if not confidence in the whole enterprise.

President Harry Truman is reputed to have once asked if someone could find a one-armed economist—so that he would not have to hear another "but on the other hand." We could excuse a great many parents, teachers, and businesspeople if they expressed the same desire with regard to what they hear researchers saying about how best to raise children, teach students, and sell products.

Closely related to complexity are the apparent conflicts among research findings. How often have you heard research being cited by advocates on opposite sides of a debate? Researchers know that differences in the results from apparently similar studies usually are a function of subtle differences in how the research was done. The most common sources of equivocality in findings are (a) how the problem is conceptualized; (b) small alterations in procedures of measurement, treatment, or analysis; and (c) the ever-present problem of differences in the members of sample groups (both within and between studies) that serve to contaminate observations and to confound results. Explaining that to a layperson, however, is a thankless and probably impossible task. Researchers simply have to live with the reputation that they cannot agree on anything—and with the way that image undermines the credibility of their reports.

Next, for many people, there are two knocks on the utility of research that have status as folk wisdom. These popular assertions hold that the things researchers choose to study often are no more than mere trivia and that most of the findings reported in scholarly journals have no application to anything in the real world.

The first of these perceptions is related to a genuine characteristic of most studies. Increments of knowledge are won through a step-by-step process within which great leaps are a considerable rarity. Small bits of insight have to be woven together into the structure of larger webs of

understanding. Taken as a single event, which is how any one report must necessarily appear to an outsider, what is attempted in most studies must seem at least unambitious, if not trivial. That perception hardly encourages a wide readership by people searching for magic bullets to cure problems.

Related but far from conterminous is the familiar complaint that research performed by out-of-touch intellectuals is too esoteric and without practical application. The problem here might involve the perception of triviality, but the real target of concern lies more in another direction—the gulf between knowing that something is so and knowing what might be done about it. Putting the results from some kinds of research to work requires engineering, development, and dissemination— all processes for which many researchers have no particular talent and even less motivation.

There are, of course, applied studies that directly serve improvements in the human condition (and they are—or ought to be—exempt from such criticism). You will hear more about the distinction between investigations motivated by the need to know (*basic research*) and those motivated by the need to improve (*applied research*) as you work through the following chapters.

In that process, you will encounter our proposition that the tidy dichotomy of basic/applied does not always serve us well, the distinction often having nothing to do with what researchers actually do or how knowledge really grows. Nevertheless, it is absolutely true that in many studies the investigators have no idea at all about how their findings could be put to work, although they might have complete faith in the proposition that, over time, knowing how things work always turns out to be advantageous. It is little wonder, then, that, left to envision their own applications, readers whose expectations do not include a long-term perspective have little patience with what they find in many reports.

Researchers who have the good fortune (or bad luck) to achieve elected or appointed positions in which they can participate in the making of public policy quickly receive instruction about most of the shortcomings of research that have been previously noted. It might take longer, however, for them to discover that there is something more personal to learn about how others perceive researchers and their reports.[1]

Many (although not all) researchers work within a culture that values *objectivity* (the ability to insulate inquiry from personal opinion and attitude) and the virtues of writing without evidence of affect or political commitments. In the culture of public service, however, the opposite applies. Decision makers often deliberately choose terms that will arouse the

emotions that lead constituencies to agree with them. Consequently, those who speak the language of dispassionate evidence are regarded with deep suspicion—as cold, disinterested, and lacking in the virtue of conviction.

As they are commonly written, research reports are the last things that most people engaged in the politics of policy development want to hear. Those who insist on using affect-free language are regarded as having covert motives. Why would anyone seek public support for a decision by being neutral?

That distrust of detached objectivity is not limited to legislative bodies, school boards, and other formally constituted groups. Wherever there are contests of ideas, many people look for evident commitment, sincerity, and passion as indicators of credibility—all things for which most (although not all) types of research make little or no provision.

Finally, there are groups within our society, most notably those holding views associated with various forms of social conservatism, whose members deny the privilege of evidence validated by empirical research. As a matter of personal conscience, they give first priority for making decisions, in the public arena as in their private lives, to some other source of truth. That source may be tradition, authority, political ideology, scripture, or any other system of thought that demands adherence to doctrine.

For the members of those groups, the question is not how to best use research but whether research should be consulted at all. For that small (but often fervent and highly vocal) segment of our society, the answer to that last question, on many of the most perplexing issues we must confront, is an unequivocal "no." For them, research provides no source of certain guidance and represents, at best, an alien doctrine.

It is less common for research in the physical and natural sciences to be a target for the kinds of criticism we have noted in these pages. Social science research usually bears the brunt of most (although not all) of the negative perceptions. Among the several reasons for that disparity is the simple fact that disciplines such as astronomy and botany have less to say about problems of professional practice, public policy, and the conduct of everyday life. For the different domains of research, one price of seeming to hold immediate social relevance is close and critical public scrutiny.

〰 SUMMARY

Our motive in recounting powerful reasons that people sometimes avoid reading—or considering—research certainly was not to discourage you.

We simply want you to advance with a realistic understanding of the status sometimes accorded research. It is often mixed, and it is sometimes ambivalent. On one hand, research is worshipped in a society drunk on technology and the misplaced notion of the inevitability of material progress. On the other hand, research is sometimes reviled as out of touch, impractical, inaccessible, and arcane.

We have our own opinions about these issues, and, by the time you reach the last chapter, they will be no secret. To reach your own evaluation honestly, however, it is necessary for you to encounter some research firsthand—science, up close and personal. That is why we wrote this book, and that is why we have invited you to learn how to read research reports.

In the pages that follow, we will argue not only that you *can* learn how to read research reports of many kinds but also that you *will* find it profitable to do so. We believe that what you learn from them can have both utilitarian value, as guidance in making personal and professional decisions, and existential value, as a means for making you more fully aware and appreciative of the world—both the one around you and the one within you. In the end, however, the most convincing evidence regarding these assertions will come not from our enthusiastic endorsements but from your own experience. Even if you are skeptical about our claims, as long as you are willing to invest some time and effort, we have all that is necessary for a sound working relationship and a fair test. Hear us out, give it a good try, and evaluate this book in terms of what actually happens to you. Let the journey begin!

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1. These problems are ubiquitous and generic, cutting across the research enterprises of most disciplines. They have been described by researcher Harris Cooper (1996) in a thoughtful analysis of his experience as an elected member of a local school board.