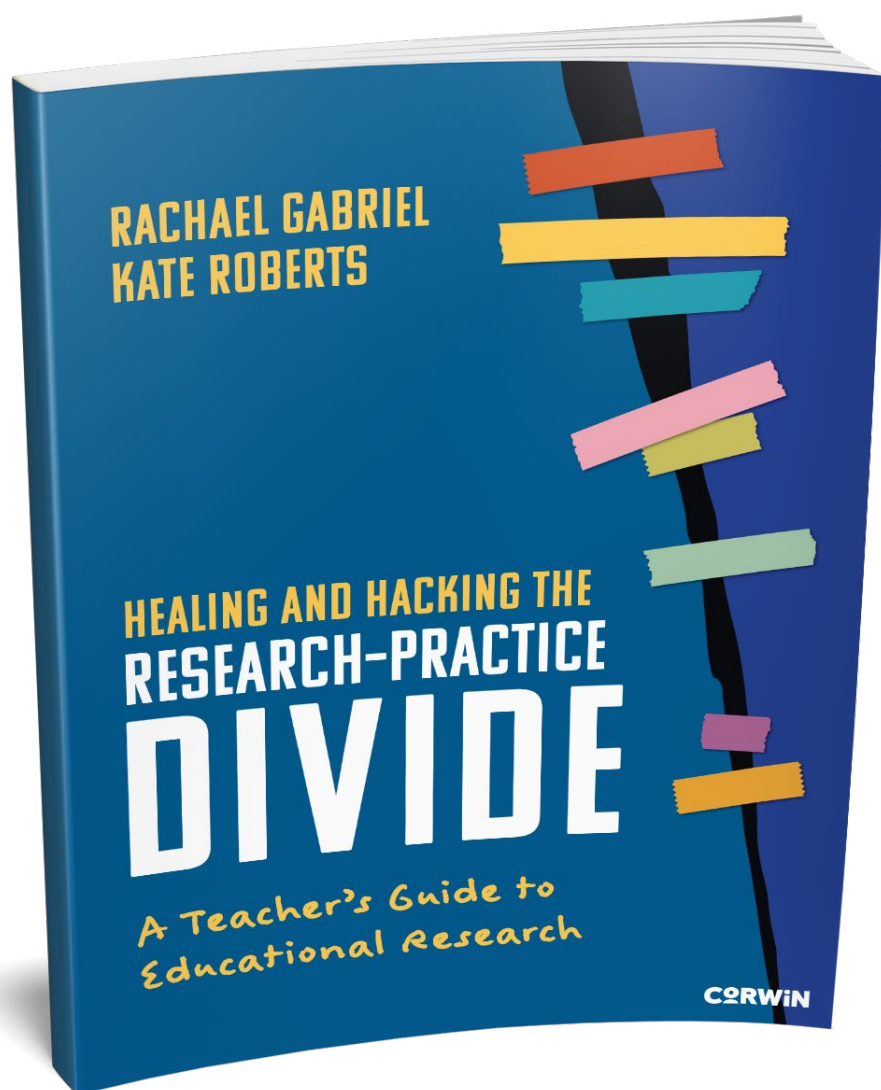


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WHAT IS RESEARCH ANYWAY?

Research in the United States, in the 21st century, is a set of formalized ways of making sense of the world. Formalized in that there is an agreed-upon set of steps, a process we collectively say does a good job of creating conditions that allow us to try and look clearly and dependably at complex realities. These steps help us make sense out of confusion, questions, and problems too difficult to see without a process. We do this research in the world, pulling out data from the tangle of existence in the hopes that we can see something that helps make lives better.

Temperature Check

What would you put as your relationship status with research on an app if asked?

1. I am partnered with research. I read research consistently, feel comfortable with the language and structure, and look for new findings from trusted sources.
2. I am single. I have not read much of the research, if any, and feel alienated from that world. When someone tells me, “the research says,” I have to believe them or I just ignore them.
3. It’s complicated. I feel a push/pull with research. The language feels inaccessible but I try to keep abreast of things. It feels overwhelming to keep up, or when the research contradicts itself. I struggle to see how relevant it is to my daily practice.

Part of your answer may depend on how you contextualize research. Let’s start there. In our context, education research is a set of formalized ways of making sense of teaching and learning. Educational researchers have created a community of practice with a set of agreed-upon norms and conventions for communication and action. Some are formal, like ethics for study participants, and some are informal, like choices of how to display data in slides at a conference. Some are more universal, like the basic format of a published research paper, and some are more localized, like the specific criteria reviewers use when evaluating articles for publication. Making sense of research is much like making sense of anything else: It is developing awareness of the ways a community produces, shares, and critiques knowledge. Most of the work of producing, sharing, and analyzing information and ideas is made visible in talk and text. Language, or more specifically, discourse (ways of using language) is a way to understand this information. That’s why in the coming pages we pay special attention to the language, formats, and genres that are used in teaching and research to make sense of classroom practice. We explore education research like a discourse community unto itself, knowing that it actually represents *many* discourse communities, to see what shared patterns of language use tell us about the nature of that community’s work, values, and goals. We hold these up next to some of the work, values, and goals of teachers we have worked with in order to understand the Venn diagram of activity and interest and see how these separate communities converge and diverge.

But that’s not exactly what people mean when they say “the research says . . .”

When people bring up “the research,” they don’t usually mean “a set of formalized ways of making sense of teaching and learning.” They usually mean *the* answer.

Often what people mean when they say “the research” is the findings of a study: an organized attempt to answer a question. Or they may mean the accumulation of answers from such attempts. This can create the illusion that the answers are objective and true. But no matter how carefully designed a study is, data must be contextualized and interpreted to make sense every step of the way. Because while sometimes there is a sense that the research findings—or the data—are unadulterated by human opinion or bias, in actuality there are layers upon layers of very human decisions, interpretations, circumstances, and complexities every step of the way. Think about the steps of a research study, as summarized in the first column in Table 1.1. This is the process that Rachael follows for all of the research she’s done. The second column highlights some of the ways subjectivity finds its way in, and the third column identifies some of the questions raised by this subjectivity.

Table 1.1 • All Research Requires Subjectivity

Stage of Research	Where Subjectivity Finds Its Way in	Subjective Effect on the Research
Hypothesis and study design	Which topics? What data?	Who/what gets the spotlight? What gets left out?
Data collection	What system for collecting?	Who does that system benefit? Who or what does it obstruct?
Data analysis	What does this data suggest?	How are you transforming data into evidence? What are you looking for or not looking at?
Interpretation	What are the implications of this data?	What do you decide is important to share? In what ways?
Dissemination	Who publishes this, for what audiences, in what contexts?	What readers does each outlet attract? How does each outlet frame the findings?

Every step of the way, there are gaps in what might be presumed to be an airtight, controlled system—gaps that let the messiness of humanity get in. Because while we like the phrase *the research says*, the research doesn’t say anything. People do. And people bring with them all sorts of capacities and limitations, insights and biases. That means any study, no matter how researchers attempt to calculate out potential sources of bias or error, is always offering a possible and partial portrait of something particular, never a complete understanding.

**Because while we like the phrase *the research says*, the research doesn't say anything.
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Subjectivity can slip in even when researchers get millions of dollars to do their work. For example, in the 2010s, the Gates Foundation funded a \$45 million study of tools for teacher evaluation called the Measures of Effective Teaching project, or MET Project. It used a research design borrowed from medical research considered a gold standard: a massive, nationwide, randomized controlled trial. At the time, it was the largest and most expensive single investigation in education research history. Rachael was one of the first researchers to be granted access to the huge database of videos, test scores, and evaluation ratings for the thousands of teachers and tens of thousands of lessons that were included in the MET project. It included 20,000 videos of 3,000 teachers collected across two to three years. This huge sample was good news for research that aims to generalize findings. The more—and more varied—data we have, the more certain we can be that the patterns we see in this investigation apply beyond the study. Yet the size and scope of this study illustrated several of challenges with collecting large-scale data over time:

- ▶ Videos varied widely in quality. Some lost sound partway through, or became unintelligible when students spoke in groups. Others missed the minimum time requirement, cut off suddenly, or only showed the teacher.
- ▶ Many of the participants were not evaluated over the full length of the project as intended. Teachers often only participated in a single year of the study because they moved, were reassigned, went on leave, or for other unavoidable reasons.
- ▶ Even in a randomized control trial like the one used in this study, ensuring that groups are truly random is difficult. Classrooms were meant to be randomly assigned—not all students with high or low test scores, for example, or all the students with IEPs. Yet schools often used some method for sorting students into levels anyway, out of necessity or misunderstanding, and when we checked, it turned out that classrooms were not so randomly assigned after all.
- ▶ Even when a study is geographically well distributed, participants are not always as representative of that area as intended. The project had a timeline that required researchers to rely on existing networks and contacts to recruit participants. As a result, the participating districts had all participated in Gates Foundation-funded studies before and that were skewed toward large, urban districts that may have participated in a similar set of recent reforms.

Recruiting participants, collecting data, and analyzing findings are rarely perfectly controlled when we are studying teaching and learning. That doesn't mean we don't use and value research as an important part of generating knowledge and testing hypotheses for the field. It just means, when we hear someone pronounce “well,

research says . . .” and follow that up with a definitive statement like “X is bad” and “Y is good,” we think they maybe haven’t done much research after all. Valuing research means seeing it clearly—for what it does and does not say.

**Valuing research means seeing it clearly—for
what it does and does not say.**