

The Basics of Evidence-Based Practice

By Rob Briner

vidence-based practice is nothing new or complicated or mind-blowing. It isn't a disruptive paradigm-shifting solution to every problem. It doesn't involve convoluted equations, and you don't need a team of brainiacs. It won't push your thinking way outside the box with awesome concepts. It will do something much more exciting, interesting, and important than all of these put together: It will help you to make better decisions.

We all use evidence of some sort for everything we do: booking a vacation, buying a refrigerator, deciding which movie to watch, or designing a new talent management strategy. Why? What's the point?

This sounds like a pretty strange question to ask as the answer seems so obvious the question hardly needs to be asked. Strange as it may seem, thinking about why we nearly always choose to use evidence sheds light on the often taken-for-granted principles behind using evidence and the underlying rationale for evidence-based practice (EBP).

Put simply, we use evidence because by doing so we're more likely to get the outcomes we want: A relaxing vacation, a refrigerator that fits neatly in the gap in the kitchen, a movie that will make us laugh, or a talent strategy that will reduce unwanted turnover and streamline succession. Using evidence is just about making more-informed decisions.

Put a bit less simply and a bit more precisely, there's more to it than this. Making a more-informed decision isn't about using just any old bit of evidence we stumble across in any way we fancy. Rather, the evidence used should be both trustworthy and applicable to the specific context. Indeed much of the work and skill involved in actually doing EBP is ensuring that the evidence you obtain is the best available and addresses your particular circumstances: the most reliable and the most relevant.

What is evidence-based practice and how is it likely to be different from the ways we usually use evidence?

Everyone gets the idea that using evidence in our personal or professional lives will increase the chances of obtaining desired outcomes. EBP is about taking exactly this same principle and extending it so we can apply it more effectively. What are the key likely differences between the way we *generally* make use of evidence in everyday life to help make decisions and the *specific ways* we use evidence in EBP?

Key Difference 1: Conscientious, Explicit, and Judicious

As the definition of EBP makes clear, it's about making a *conscientious, explicit,* and *judicious* use of the best available evidence. *Conscientious* means, obviously, that we try hard and make a real effort to gather and use evidence. How hard usually do we try to gather and use evidence? We all try to some extent but there are also many obstacles such as time constraints, the challenges of finding the right evidence, or if any decent evidence exists at all. In such circumstances we are likely to call off the evidence search and just go with what we've already got to hand or what we can easily access. EBP is therefore not only about finding and using evidence. It's about being prepared to commit effort and resources to doing so in order to overcome these and other obstacles.

We've all been in meetings where someone claims to "just know" that some proposed solution won't work as it's "obvious" or a "no-brainer" even though that same someone is also unable to back up their judgement with much, if any, evidence. Similarly, someone says they're sure that some other solution *will* work as they read a great article about it in some good business magazine written by a brilliant professor or consultant or someone senior at Google. Yet again, they can't quite remember exactly what evidence was presented in the article.

The need to be *explicit* is therefore an essential part of EBP because if we don't spell out and describe in detail the evidence on which we are basing our claims, the trustworthiness or value of that evidence can't be scrutinized and therefore can't be used effectively to help us make better decisions.

Being conscientious and explicit is good but not enough. We also need to find the best available evidence. EBP is not about using *all* the evidence or information we have gathered in to help our decision-making. Rather, it's about focusing on the more reliable and trustworthy evidence.

In everyday life and in business we are bombarded by information of various types from many sources. However, much, if not most, of this is likely to be noise: unreliable and misleading. How do we cut through the distracting noise to get to whatever signal might be there? The answer is to be *judicious*: to make judgements of or to critically appraise the quality of the evidence. The more reliable the evidence we use to help inform our decision, the more likely it is we'll get the outcome we want.

Key Difference 2: Multiple Sources

If you've ever watched a courtroom drama, you'll appreciate exactly why gathering evidence from multiple sources is essential for determining the accused's guilt or innocence and the probabilities of such. In a murder case, to choose a grisly example, there may be forensic evidence, eyewitness testimony, other witness accounts, expert witnesses, physical evidence, CCTV footage, and so on.

Each source of evidence might be judged to be more or less reliable or relevant. Different sources or types of evidence may tell the same or quite different stories. Evidence from one source may cast doubt on, reinforce, or clarify evidence from another. By pulling together different kinds of evidence from multiple sources and using it in a conscientious, explicit, and judicious way, we build up a picture of what happened, why it happened, and the probability that the accused is actually guilty.

Part of the excitement of doing EBP is that we don't start with assuming that something is or is not the case. Similar

We've all been in meetings where someone claims to "just know" that some proposed solution won't work as it's "obvious" or a "nobrainer" even though that same someone is also unable to back up their judgement with much, if any, evidence.

to jury members, we need to keep an open mind and pay attention to, evaluate, and use the evidence. We may have our own initial views and that's fine, but the purpose of doing EBP, like using evidence to make legal decisions, is to find out, given the available evidence, what is more likely to be true.

When we apply EBP to management decisions, the four main sources of evidence used are *scientific literature, organizational data, stakeholders' concerns,* and *professional expertise.* What does this look like in practice?

One way of describing this process is by listing some of the questions a group of practitioners might ask and then try to answer by gathering evidence from each of these sources. Note that *exactly the same EBP approach* is adopted *both* to identifying possible problems (or opportunities) *and* possible solutions. After all, there is absolutely no value in discussing the evidence for possible solutions until and unless the problem is well understood and the diagnosis of that problem is based on good quality evidence.

As an aside, even though it has no value, we frequently *do* engage in lengthy debates about the efficacy of possible solutions without having a clear answer to the question we need to answer first: What's the problem we're trying to fix?

Suppose an organization believes it has a problem with low employee engagement (EE). Before they consider possible remedies, they want to ensure they have a sound understanding of what that problem actually is, if indeed they have one. What types of questions should be asked to establish the extent to which low employee engagement might be a problem for their organization? See chart below.

If, *and only if*, the organization discovers that low EE is likely to be a *significant* problem for their organization would they then repeat the exact same process by asking similar questions to each of the four sources in order to identify likely solutions.

Can you imagine what might happen if you and your colleagues took this EBP evidence-gathering approach and applied it to something you're working on right now? When I work with organizations to do exactly this, people seem to find it quite revealing, sometimes surprising, and not always comfortable. Here are some common themes:

- We often prefer some types or sources of evidence and would rather just ignore the others.
- One or two sources of evidence are always used but we rarely consider three or four.

- Some sources and types of evidence are not there or hard to access.
- We may feel we lack the skills required to judge the quality or trustworthiness of the evidence.
- The quantity, quality, and nature of the evidence we uncover is nearly always a surprise.
- We may constantly want to jump to conclusions rather than waiting until we have more evidence to provide better answers to our questions.
- There can be a lot of cherry-picking such that we emphasize evidence that supports our position and downplay evidence that doesn't.

It sometimes seems that the most common answer to the questions we ask to gather evidence across the four sources is "I don't know," which can be frustrating. However, we should not stop there. We may not know but we can try to find out. We can only uncover useful evidence by first being aware of what it is we don't yet know but need to know. And having gaps in our knowledge or knowing we don't know things doesn't stop us making decisions. Rather we can still make a decision and do so with a clear understanding of the strengths

Source	Sample questions asked to gather evidence to help identify the <i>problem</i> of low employee engagement (EE)
Scientific literature/ findings	 What do scientific findings suggest are the problems with low EE? How valid and reliable is our measure of EE? What do the results of scientific studies tell us about the <i>effects</i> of low EE? In what ways might this be a problem or lead to problems? How strong are these effects? What do the results of scientific studies tell us about the <i>causes</i> of low EE? Are these causes amenable to intervention and change? What theories have been used to explain low EE? How trustworthy and relevant is this information?
Organizational data	 What do organizational data tell us about the nature of the low EE problem? How much of a problem is it? What are the numbers? Are there any trends or changes over time? Are there patterns relating to particular parts of the organization or roles or functions? Do organizational data reveal anything about the effects of low EE? What problems is it causing? Do organizational data reveal anything about the causes of low EE? How trustworthy and relevant is this information?
Stakeholders' concerns	 What do stakeholders (e.g., employees, managers, customers, clients, trade unions, shareholders, etc.) believe are the problems with low EE? Do stakeholders have views about the possible <i>effects</i> of low EE? What are stakeholders' perceptions of possible <i>causes</i> of low EE? How trustworthy and relevant is this information?
Professional expertise	 Based on our experiences and expertise, what do we think is the nature of the problem of low EE? From our experience what are the <i>effects</i> of low EE? What do we believe, from our experience, are the <i>causes</i> of low EE? Drawing on our expertise, what are our theories about the causes of low EE? How trustworthy and relevant is this information?

and weaknesses of and gaps in the evidence on which that decision was based.

Key Difference 3: A Structured Approach

As the questioning process described above shows, an EBP approach is a more *structured* approach than we might usually take. The six basic steps around which EBP is structured are described in the figure at right. Returning to our example of how and whether the organization has a problem with low EE, what might each step entail?

- 1. Ask: The perceived problem of low EE needs first to be translated into answerable questions (e.g., Does low EE have negative effects on employee performance?) in order to find evidence about whether or not low EE is likely to be a problem and therefore one which needs tackling.
- 2. Acquire: Ask the questions within each of the four sources and gather evidence from each which helps to answer the questions (e.g., Looking at organizational data, what happens to customer satisfaction levels when EE goes up or down?).
- **3. Appraise:** Examine the evidence obtained and make a judgement about its trustworthiness (e.g., Given our question, how reliable and relevant are these findings from scientific studies?).
- 4. Aggregate: Pull together the best available evidence (not *all* the evidence) from each of the four sources to build an overall picture of the answer to the questions (e.g., Putting all this best-quality evidence we have together, what can we say about whether and to what extent low EE is likely to be having negative effects?).
- **5. Apply:** Use the answers obtained to make a better informed decision about what, if anything, to do (e.g., Given the answers we have to our questions, it appears unlikely that low EE is having strongly negative effects on performance, therefore, we decide not to intervene to increase EE and rather explore other ways to enhance performance.).
- **6. Assess:** Evaluate the effects of any decisions taken (e.g., What happens over time to EE and performance levels in the absence of interventions to increase EE?).

Responding to Concerns and Objections

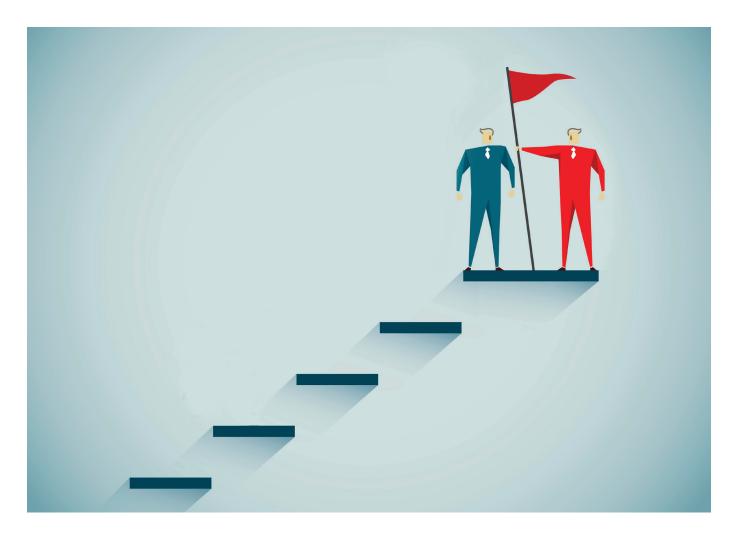
We use evidence for almost everything we do. We do it because it's based on the underlying principle that the more informed our decision, the more likely we are to get the outcome we want. EBP takes this fundamental principle and extends it by proposing that we need to be *conscientious*, *explicit*, and *judicious* in our use of evidence, gather it from *multiple sources*, and take a *structured approach* to deciding both what the problem and possible solutions might be.

Given this compelling logic, you may wonder why we aren't all *already* doing EBP—or something very much like it. One important barrier is the concerns and objections people raise to EBP even *before* they've tried to do it.

Here are some of the most common I've come across in teaching students and training managers and HR profession-

Evidence-Based Practice





als how to do EBP, along with my usual response.

- EBP looks complicated and difficult—it's just not worth it. Yes, it's harder than making decisions without much good evidence or analysis but it's a cost-benefit thing. Don't do it for every single decision—just the most important where getting the outcome you want is significant for the organization. And agree in advance a point in time at which you'll stop collecting evidence and make a decision.
- We need to make decisions fast, and this will slow us down. How often do decisions *really* need to be made quickly? Decision points may be more predictable than is assumed. Build EBP into the planning process rather than waiting for a surprise. Do you want to make a good decision or a fast decision?
- We already do a ton of data analytics; we don't need this as well. Analyzing organizational data is a good thing but EBP is about looking across multiple data sources. Organizational data, no matter how thoroughly analyzed, are only a part of the evidence picture.
- What's the point? You can never prove anything for sure anyway. Apart from math and logic, that's true.
 Fortunately, EBP is absolutely *not* about trying to prove anything or discover the truth. Rather it's about making a better-informed decision. It's about probabilities and likelihoods (this is more likely to fix the problem), not

certainties (this definitely will fix the problem).

- This will just lead to analysis paralysis. Analyzing evidence doesn't in itself stop us making a decision. The main thing that does is not wanting to make a decision.
- We can't do EBP properly and thoroughly so there's no point in even trying. EBP is certainly not an all-or-nothing thing. Using some evidence is better than using no evidence at all. Using more evidence is likely to be better still. This is not about making perfect decisions.

After reading this article, you may share many of these concerns and have others. I've provided responses to some that I hope go some way to alleviating such concerns but, in the end, I think the best course of action is to try it out.

As you and your team make plans for the medium-term future and contemplate all the actions you could do, can I make a suggestion? Rather than trying something new or complicated or mind-blowing, why not try something that will help you make better decisions and improve the chances of getting the outcomes you want? After all, that's the whole point of using evidence.

Rob Briner, Ph.D., is Professor of Organizational Psychology at Queen Mary University of London and Scientific Director at the Center for Evidence-Based Management. He can be reached at r.briner@qmul.ac.uk.