Responsible Consumption and Production of Research with Elizabeth Engel and Polly Karpowicz

Leading Learning Podcast Transcript for Episode 344

Elizabeth Engel: [00:00:00] Ask questions of: "Who's funding this research?" "Who's sponsoring this research?" "What are their perspectives, if they have any?" "Who was or wasn't included?"

Celisa Steele: [00:00:15] I'm Celisa Steele.

Jeff Cobb: [00:00:16] I'm Jeff Cobb, and this is the Leading Learning Podcast.

Celisa Steele: [00:00:25] Welcome to episode 344, which features a conversation with Elizabeth Engel and Polly Karpowicz. Elizabeth Engel has worked in the association industry for more than 25 years. For the last 10 years she's run Spark Consulting, which provides membership strategy consulting to associations. Polly Karpowicz is an association executive and consultant whose work focuses on strategies related to research, publishing, communications, marketing, membership, and technology. Elizabeth and Polly co-authored a white paper titled "Caveat Emptor: Becoming a Responsible Consumer of Research," and that publication is the focus of this conversation. Jeff, Polly, and Elizabeth touch on primary versus secondary research, qualitative and quantitative research, mixed research methods, the ethics of using people in research, and bias (including response bias, instrument bias, analysis bias, and confirmation bias). They get a bit technical and talk about validity, reliability, and statistical significance, but the take-home message is simple—it's important that learning businesses and others pay attention to the research they consume and rely on for making decisions. Jeff, Elizabeth, and Polly spoke in January 2023.

Jeff Cobb: [00:01:54] What's it really like to engage with organizations? What does working with you entail?

Polly Karpowicz: [00:02:00] Elizabeth and I actually started at the same association a million years ago, when we were about seven or eight. A lot of my experience with associations before I started consulting was within a professional association. And there we actually both worked for the American Political Science Association at a critical time, I think, for associations when so many things were changing. I had the tremendous opportunity to have my hand in a lot of different things from the beginning: surveys and research, international programs, some membership-oriented programs, communications marketing, and then eventually publishing. Like Elizabeth, I have over 25 years of experience. I think mine is understanding how all the pieces fit together because I've lived that. I've been that person who was spread between so

many different departments, but also, towards the last 10 years of my association professional career and into the 10 years I've been a consultant, is understanding how we can create some meaningful innovation when we think about all the different parts of our associations and how they fit together. In a nutshell, it sounds a little vague. But it's in that area where associations are needing insight that relates to research and also needing to practically get on with what they do with new insight and also keep those trains running that are really important to existing programs that we need to continue to do while supporting our members, stakeholders, and consumers wherever they are.

Elizabeth Engel: [00:03:27] Like Polly, I spent the early years of my career as an association executive—the first 15, as a matter of fact—working for small, medium, and large associations, working for professional and trade associations. Like most of us in the association industry during that time, I wore a wide variety of hats, often at the same time. But the continuing thread throughout all those positions was always membership. There was always a membership component to what I was doing in my association work. Then, when I launched Spark, it was a natural fit for me to focus on membership work. I really do soup-to-nuts membership work for associations, both sort of big-picture strategy but also member-value proposition work, structure work, recruitment and retention campaigns, and membership audits. Just anything that you can think of with regards to membership and member engagement and engaging and working with all your various constituent groups.

Jeff Cobb: [00:04:26] It's clear that both of you do a lot of different, interesting work in the ways you engage with organizations. But we're here primarily to talk about the recent white paper that you co-authored, "Caveat Emptor: Becoming a Responsible Consumer of Research." I have to ask right off, what compelled you to write the white paper? Maybe another way to put that is, why does this matter in general, and then to your specific audience of associations?

Elizabeth Engel: [00:04:59] One of the things that I've done since launching Spark is to write white papers. It's a continuing series. I think that Caveat Emptor is number 14 in the series, and they've all been collaborative works, usually with an actual co-author. Polly obviously was the one for this particular white paper. There are a variety of different kinds of topics and issues and everything. With all of them, the continuing overarching theme is that there's something going on in the association industry that I'm interested in, personally, and that I think it's something that as an industry and as a community, we should probably be paying a little bit more attention to. So, this latest one is about the whole concept of doing a research program. The reason that this came up is because executives, broadly, including association executives, are tasked with using existing research and generating original research every day for their organizations in pursuit of making good decisions for those organizations and for the customer/members/stakeholders, etcetera, that those organizations serve. The issue is that most of us lack formal training or a formal background in research methods, and there's a lot of not-great research out there.

Elizabeth Engel: [00:06:18] To quote the white paper, "Good research does not guarantee good decisions," but it certainly helps, "and bad research, barring getting lucky and guessing right, almost inevitably leads to bad decisions." Even more specifically, when we think about associations, we are viewed by our audiences as trusted, unbiased sources of information for those audiences that we serve, and providing quality research products is critical to remaining worthy of that trust. Polly and I took on this project because we wanted to help our fellow executives, broadly, and association execs, specifically, be more informed about what

constitutes sound research so folks can better evaluate the research you're relying on and you can make better decisions in service to your members, customers, stakeholders, and constituents. You can also make better decisions in service to your organization's mission and remain worthy of those constituents' trust.

Jeff Cobb: [00:07:15] I feel like there's a broader issue behind this. Doing valid research and interpreting research in a valid way are obviously extremely important. But I feel like I see so much junk out there that people just willingly take it and run with it, and they'll make decisions and proclamations. It seems to me that we just still have what I would characterize as an information literacy problem. I know it's in the United States. I think it's probably global. Assuming you agree with that in the first place, I'd love your theories on why we have that problem, and why information literacy is potentially as low as it is. I could see in the late 1990s and early 2000s, the Internet was really taking over and people are having to grapple with it and deal with it. But at this point, we have kids coming through school who are doing this, young adults going through college who supposedly are being instructed in how to use information wisely. Is this just an intractable problem or are we making progress that maybe I'm not seeing in our levels of information literacy?

Elizabeth Engel: [00:08:26] You're 100-percent correct about the information literacy problem, not only in the United States but worldwide. It's not just a time lag thing where the youth will save us. One of the earlier white papers that I had written was on content curation. I wrote that with Hilary Marsh of the Content Company. We cited some research that had been undertaken by a team at Stanford University, specifically on information literacy. And the bad news is no one did well on assessing the validity of sources of information. They looked at middle school students, they looked at high school students, they looked at college students, and they even looked at trained researchers. So graduate students who are in Ph.D. programs where research is core to what they do, out of everybody they studied, all the various groups they looked at, the only group that actually fared well on information literacy was professional fact-checkers. Unfortunately, most of us are not professional fact-checkers either. This was a result of a lot of different kinds of things that they identified.

Elizabeth Engel: [00:09:24] There's certainly a declining trust in institutions and in gatekeepers for information. We've all seen that not just with regard to information literacy but across a lot of different factors and in areas of our lives. There's the volume of information that we're presented with, which makes it very difficult to actually have the time to assess quality. We've also got a really fragmented media landscape or journalistic landscape right now, with many consciously and intentionally bad actors blurring the lines between journalism and propaganda. That's not just your stereotypical pick your favorite evil empire or candidate trolls, right? It's also organizations that purport to be adhering to journalistic standards but aren't. Even social media has been a pernicious influence. So, there's a lot going on there that people have to deal with. Polly, I think there was something related specifically to the white paper that you wanted to mention here.

Polly Karpowicz: [00:10:21] Oh, for sure. Speaking of the white paper, what we really wanted to do—I was thinking about myself 15 years ago when we were working on this paper, like, what would I have loved to be able to access to quickly get me up to speed, point me to resources to help me—because I was like many people, sort of the person who was suddenly facing, needing to be involved in research. And I didn't have an up-to-date training in research. We wanted, here given, what we were just talking about in terms of the importance of information literacy,

to help our readers understand that applying those same information literacy skills is an essential part of becoming a more responsible consumer of research that you may be finding elsewhere or as a producer of research. As organizations producing research, we need to make sure that we're doing the right thing in terms of how we're conducting our research and how we're talking about it as well, so that we can help those who consume our research understand what they're looking at. We did have an opportunity to interview Dr. Joyce Russell, who's the dean of the Business School of Villanova and who specializes in leadership and organizational development. You may have heard of her.

Polly Karpowicz: [00:11:29] She's written a column on career coaching in *The Washington Post* and *Forbes* publications and happened to be my MBA professor at Maryland. Coming from the standpoint of someone who is both researching what professionals need to be successful and also working with students who are about to embark on their careers, had done some research on her own, and was hearing from employers that—having the ability to discern reliable research is essential for everyone. Being able to talk about that research is also essential. So it really touches on both sides of understanding what you're reading, but also being able to tell a story about the research that you've found somewhere else or that your organization is creating. It really is something we all need to know. It's no longer the case we can say, "It's not my job, it's someone else's." It's just now an essential part of being a professional today.

Celisa Steele: [00:12:26] We're grateful to WBT Systems for sponsoring the Leading Learning Podcast. TopClass LMS provides the tools for you to become the preferred provider in your market, delivering value to learners at every stage of their working life. WBT Systems' award-winning learning system enables delivery of impactful continuing education, professional development, and certification programs. The TopClass LMS team supports learning businesses in using integrated learning technology to gain greater understanding of learners' needs and behaviors, to enhance engagement, to aid recruitment and retention, and to create and grow non-dues revenue streams. WBT Systems will work with you to truly understand your preferences, needs, and challenges to ensure that your experience with TopClass LMS is as easy and problem-free as possible. Visit leadinglearning.com/topclass to learn how to generate value and growth for your learning business and to request a demo.

Jeff Cobb: [00:13:26] There can be a lot of sources for information, a lot of sources for research. Research tends to be this blanket term where you would say, "Well, we've gotten some research, but, of course, there are different research methods." Research is gotten in different ways. We get that data in different ways, how the data is procured can make a difference in what you're able to take from it, and what you're able to do with it. But I think we often gloss over the distinctions between different research methods, and we'll just kind of say there was research on it, so we're going to quote the research. But you get into this in the white paper. What are some of the key methods that responsible consumers of research need to be aware of, and how are they different, particularly in terms of the types of results that we can reasonably be expected to get from them?

Elizabeth Engel: [00:14:18] Jeff, as you mentioned, the white paper obviously goes into this in quite a bit more detail. But two of the major category distinctions include thinking about whether you're going to do quantitative or qualitative research. That's stuff like surveys versus stuff like interviews and focus groups, or if you're going to do primary research or secondary research. Primary research is conducting an original, formal study that you create yourself. Secondary research is using studies and information that somebody else already conducted or

collected. And they all have pros and cons, as you might expect. For a lot of us, when we think about research, surveys are the first thing that pops into our minds. So when you think about surveys, one of the big pros of doing a survey is that it's very certain. You've got these numerical responses, where you can have a pretty high degree of confidence in the results if you've constructed and administered your survey well. Surveys are relatively cost-effective and quick, so they give you these very definite answers and, often, in a really resource-friendly kind of way.

Elizabeth Engel: [00:15:34] Some of the downsides are that they're pretty inflexible, and they are particularly at risk for a number of the types of biases that Polly is going to be addressing, I think, a little bit later on in our conversation. When you think about qualitative research, you know, having those conversations with people, one of the really great things about it is that it gets at people's "why." Survey research can tell you what, again, with a fairly high degree of numerical certainty, but it doesn't give you a whole lot of explanation about why things are the way they are, or why people are choosing the things that they are. Some of the downsides of those more conversational types of research are, number one is that data is not the plural of anecdote, right? Stories are stories, and they are not that numerical certainty data, and they are very resource intensive. There are also two particular types of bias that those conversations are subject to. Those are the Hawthorne effect and social desirability. The Hawthorne effect is that, basically, you want to please the interviewer, and that might shade how you respond. And then social desirability is just you sort of generally want to look good. That might also shade how you respond, and maybe you would lead to not being 100-percent honest there.

Elizabeth Engel: [00:16:56] Then, when you think about the primary versus secondary choice, there are also pros and cons there. With primary research, the great thing is—I have designed this study; I have specific questions that I want to answer; and I'm going to go get answers to them. Great. The problem is, much like those qualitative conversations, it's resource intensive to do your own original research, particularly to do it well. For associations in particular, there are some ethical issues potentially involved in doing research that involves people. We go into quite a bit more detail about that in the white paper, but it's all under the term human subjects research, and there are some serious ethical considerations you need to think about there. When you're doing secondary research, again, pros and cons. Secondary research is looking for existing stuff that already is out there. Somebody else has done it. It's great for doing background research and familiarizing yourself, in broad strokes, with what's going on in a particular field of study or area of research that you might be thinking about. It can be a good thing to do, prior to doing primary research, to get some background, to help inform what you might want to ask, and to inform how you might want to construct the study.

Elizabeth Engel: [00:18:14] But the downside is that it is, in fact, not answering your specific questions. And it also gets back to that information literacy. The big hairy problem is this research that I've found, wherever it is that I found it—is it trustworthy? You have to really vet your quality of sources if you're going to try to use secondary research in any kind of more than cursory way. The kind of secret sauce of doing this is to mix your methods. They all have pros and cons, which can often offset each other.

Jeff Cobb: [00:18:47] That was going to be my question. Is it generally better to have both types—qualitative and quantitative—and primary and secondary mixed together? Best of all worlds is when you get them all mixed together. I think this falls in maybe the primary meets secondary realm. I feel like I'm seeing a lot more sort of meta-analyses going on where people

are taking a bunch of different secondary research and rolling it up, and you've got to do a bunch of statistical stuff on it to make it all work out and everything. But to help you reach conclusions off of larger, more diverse data sets, are you seeing that with the organizations you work with at all doing those meta-analyses?

Elizabeth Engel: [00:19:25] Yes, I think so, because there are increasing numbers of publicly available data sets, and I think that's one of the things that's causing it. There are all kinds of government data that you can access. There are all kinds of non-governmental organization data that you can access. Some associations make some data public, etcetera. And so, there's that. We've also got more computing power, right? We're all a little bit more skilled with that. Even if you haven't been trained as a data analyst, there are tools out there that are a little bit more user-friendly these days that allow you to bring in data from different sources more easily and work to combine them into one whole. One of the challenges is, now you've just taken that problem of: "Do I trust this source?" And now it's not "Do I trust this source?" It's "Do I trust all of these sources?" If I happen to get one into the mix that is a little bit sketchier, now I've just sort of polluted the entire pool.

Jeff Cobb: [00:20:26] It's interesting. It's like an artificial intelligence algorithm. If you get something a little off in the algorithm, it can change everything. I guess it's the same thing applies with meta-analyses. No matter what kind of research you're doing, you ultimately have to interpret it and be able to use it for something. You've already brought up the term "bias" a number of times. I'd love to hear your perspectives on what tends to go wrong when you're conducting research and then, also, when you're interpreting that research. I'm thinking about things like bias but also, you know, other terms you hear frequently are "validity," "significance." I know you go into a number of these different terms in your white paper. It just seems like it's really easy, though, to get results from all of this stuff, you know, all of those publicly available data sets if you're doing meta-analyses. You feel like you've got really interesting stuff, but then using it reliably is another matter entirely.

Polly Karpowicz: [00:21:28] Jeff, that is so true. It is so easy to become so excited about a data point that you're looking for and you just found and you want to jump ahead in applying it. Or you're under pressure from a program, priority, or leadership to rush ahead and start planning or designing research because we want those results right away. So, yes, that is so true. I have to say, by way of introduction to explaining some of the terms that you just introduced. I had the opportunity—in the last five years—I've recently left a position at West Out, which is a big research firm, internationally renowned, and had the privilege of being the person in between the researchers and our clients on those research projects. Problems that come up in research were things that we were really trying to focus on in terms of mitigating before they come up, as well as thinking about where they might come up after we have data in hand. So it's complicated, even for the experts. But I think what we've done in the white paper is really try to introduce these terms so our readers can understand where they might be seeing it in research that they found or while they're conducting research themselves. I think the first thing is really to resist the urge to jump ahead.

Polly Karpowicz: [00:22:41] The primary message is that it's really better to channel that energy to understanding the research you're looking at. So look at the methods if you're looking at something that's already produced or anything that explains how the author of this research or these findings came up with it. And also, really trying to lay the groundwork before you start doing any research. Some common areas that can go wrong, like you have mentioned are bias,

you can have problems of validity and significance. I think it would probably really be good to just start with validity. Essentially, validity is one of the factors that help us understand whether we can stand behind our research or not. Basically, the validity helps signal whether the data that we're looking at is real, accurate, and valid. Where problems with validity can arise are essentially anywhere in the research. It really focuses on the execution—the design of research, the data collection. If there are issues in validity, whether we are asking the wrong people or certain questions or our instrument is really flawed in some way, it can cause issues with the results and that the data is untrustworthy, it's outdated, it's unclear even, or we collected data prematurely. It's too soon.

Polly Karpowicz: [00:23:57] What we don't want to see, probably the most egregious kind of validity issues are related to fabricated data or falsified data. Hopefully, that's not happening, but we want to be watching out for that. What's sort of a footnote to validity is reliability, which basically means research is reliable. When we've chosen a research method or approach that can provide the most consistent results, it's replicable. If we took that same instrument and asked people in the same sampling group—the same kinds of people that we sampled—to answer those questions or participate in that focus group if we're dealing with qualitative data, we would get the same results, generally. So when you put validity and reliability together, that's how we can understand the degree to which we can use and rely on those results. It's sort of a range, actually. It's not as cut and dry. We can decide that these results are valid and reliable, and they're conclusive. Some things are a little goofy on the validity scale or the reliability might merge into being more suggestive, or it's an interesting result; when we see those kinds of signals from our data, we may want to do some further exploration or analysis of the research so we can clear up what might be unclear.

Polly Karpowicz: [00:25:09] If it's inconclusive, we really can't draw any clear or valid conclusions from it. We probably need to just do some new research, start again, and figure out what went wrong. So that's kind of validity with a footnote on reliability. This is where we're getting really nerdy, and I won't go down the rabbit hole too far, but we're talking about statistical significance here. It really boils down to the level of confidence we have in the findings that they can be generalized. Again, we talk around the same things, but in statistical significance, this is where researchers will use techniques like p-value and margin of error. All of these are really well-defined in the paper, but it basically uses formulas applied to the data to determine whether what we're looking at in these results is not a fluke. P-value is really looking at the likelihood that the finding is not true. It gets really nerdy, really quick. But these are techniques that researchers use to try to figure out—how much can we really rely on this research to make decisions in the end? The primary thing that I think the average professional really could focus in on is bias, because we can usually see that.

Polly Karpowicz: [00:26:25] Elizabeth talked about a few things, like who's behind the research. Someone might be in an interview and not feel comfortable saying something negative in an interview space. To define bias, basically, it's an error. It's a gap between the truth and the data that we have, fundamentally. The problem with it is that it threatens the validity of the data, hinders good decisions later on, and sort of good news, bad news here; we know where it can show up. The bad news is we really can't get rid of it 100-percent. We can look for it. We can try to mitigate it. But we need to identify it when it does show up. Elizabeth and I came up with this notion of kind of group where you could see bias to help our readers. It's kind of three buckets. You can see bias in who responds to research and how. We touched on that a little bit earlier, you know, terms you might hear are response bias or recall bias. It basically means that

the respondent can't respond to a question for a variety of reasons. Might be because you've asked something they have no knowledge of, and that could be because you don't have people in the respondent pool, in the sample pool, who have knowledge of whatever it is that you're evaluating.

Polly Karpowicz: [00:27:36] The other bucket, the middle bucket here, is how research is designed and executed. This gets into instrument bias or measurement bias. You might have a questionnaire, a script for an interview, or your focus group protocol that is flawed in some way. You might have leading questions; you might have response scales. This gets into the measurement bias response scales that have an error in it, and then your results are going to have an error. The final bucket is how results are analyzed and reported. So a technical term would be reporting and analysis bias. It comes down to two general areas where we might notice it, which is data management error. So you might have a coding error. A lot of times, with big surveys or surveys that have open-ended questions, the responses are either grouped in a meaningful way and then codes are added to those responses to merge them together so we can more easily analyze that data. You might have something coded incorrectly, and that throws an error. One area that I think we all should absolutely be mindful of is reporting bias, where we're talking about our research results and we're not including anything negative or we're not reporting the results at all.

Polly Karpowicz: [00:28:48] We really are honor bound as researchers or accidental researchers, to make sure that we're really open and honest about how we're reporting results. If you ask the question and you can appropriately report on the results, you should do so. We need to be careful about the number of responses and make sure that we're able to maintain anonymity. So we have to be careful about those kinds of things. But, in general, you should report your results as openly and honestly as you can. You're probably wondering what we can do about this. As I said, watch for it. Report it in your report, as appropriate. Talk about any concerns you might have about the data, and record all the data. As you're designing research, follow standard practices with sampling, use random sampling, follow-up, and all the callback standards that you should follow. Have someone else look at your questionnaire from that sample group. You could think that a question that you're asking makes sense to that population, but it may not. Or the response options you're giving may not answer the question the way you think they would, based on what you're offering.

Polly Karpowicz: [00:29:50] There are certain kinds of research you really should have a third party do, for instance, some salary and compensation surveys for a variety of reasons, security, and trying to mitigate any bias that should be… probably you have a third party do that. Use validated instruments. Surveys that you've sent out before that have provided meaningful results—that's a helpful way to avoid issues. Elizabeth mentioned mixed methods, which I think is an excellent idea as well. Finally, have a plan before you start. When you have plans for each stage of your research, you can avoid decisions, for instance, at a coding stage that might create a problem that you don't recognize at the time as an issue. So plan well in advance how you're going to handle analysis and reporting and what you will report on.

Polly Karpowicz: [00:30:37] Make sure that you take the time to develop a strong instrument, whether it's a focus group protocol or an interview script. Really make sure you spend the time to create a really strong evaluation instrument, because it's such a shame when you get to the end and you realize you have a problem. You can deal with it, but it's best to try to head that off at the start. And for consumers of research, the last thing I'll say is to make sure you check your

predetermined perspective at the door when you're looking at results. You may want to find something that supports the argument. You may want to make your decision that you want to make. Try to notice where you may be biased in your own interpretation of what you're looking at.

Jeff Cobb: [00:31:26] I think one of the big lessons I'm taking from what you're saying is that good research requires a fairly high level of discipline. Whether you're designing it or whether you're consuming it, to continually question what you're interacting with. So, who was asked? How were they asked? How many were asked? What was the agenda of the people asking or the people being asked? And continually checking on that as you're designing, as you're conducting, as you're reading and interpreting—always being disciplined about that. I think that's going back to the low information literacy. It may not even be that the literacy is that low. It's that the discipline might be low because that's tough to do when you're consuming so much information all the time, even when it's a specific piece of research that you're looking at. You've got 10 other things going on at the same time, and really applying that discipline to the research, whether you're designing it, creating it, or consuming it. It can be tough to keep that consistency going.

Polly Karpowicz: [00:32:28] Absolutely. Jeff, I would say just ask the question. Be persistent. If it's unclear, and this is coming from someone who's in between the researcher and the consumer, if it doesn't make sense, keep asking those questions and be persistent.

Elizabeth Engel: [00:32:44] Literally every single person in the world, every single one of us, Polly, you, me, everybody is subject to confirmation bias. It's so tempting to look and find something that aligns with the way I want this to come out and basically rationalize my way into, "Well, this is a good source and this is valid information, and I can use this," and all that sort of thing. It's so tempting.

Jeff Cobb: [00:33:11] Definitely. I know I do it all the time. So, I cannot cast stones on that one. Now, I know you've got a number of case studies in this white paper. Is there one you'd particularly like to talk about that helps to bring some of what we've been talking about to life here?

Elizabeth Engel: [00:33:26] Well, there's actually something awesome in each of the four that we'd like to briefly highlight to your listeners. We talked to the Association of American Medical Colleges, and they provide a great example of engaging volunteers in designing your study. The whole thing that started the process of improvement on this particular survey that they conducted every year was a question that a committee member asked in a committee meeting. They took that as an opportunity to loop back with the people who use the results of the research to find out if it was meeting their needs and to look for ways to do that better. So that's one of them. The American Association of Colleges of Pharmacy, on the other hand, is a great example of responding to an unusual circumstance, I'll say. It was actually the Coronavirus pandemic that came up in the middle of the project that they were already working on, and they were able to pivot the focus of some ongoing research work that they were doing in response to that. Then they used the results of the work that they did in a more public-facing way than they had necessarily initially thought they might be able to.

Elizabeth Engel: [00:34:38] The Casualty Actuarial Society provided a great example of taking on a really big problem, which is the underrepresentation of historically marginalized groups in

the profession of being an actuary, and assembling an appropriately large group of organizations. They did this with far more than just casts, and to partner on seeking transformative answers to those questions. And, then, IEEE is the association for all the different types of engineers that are out there. It is a great example of being really creative in how you collect your data and that creativity leading to insights that otherwise would have been unavailable to the research team. I won't spoil it for folks by telling the story, but the guy that we interviewed, Marc Beebe, just shares a really fascinating story of some of the data collection work that they did and the incredible insight that it provided for them that would have been otherwise inaccessible.

Jeff Cobb: [00:35:32] Great case studies. We will, of course, be linking to the white paper in the show notes for the episode. So that's very easy for folks to go get that, read these case studies in full, obviously read about everything else we've been talking about here. You say a lot more about methods. You say a lot more about some of those issues like bias and validity, significance, and those other types of issues that we've been talking about. So, just a ton in this white paper. We definitely want to encourage folks to come to the show notes and then download that. Before we wrap up, this is, you know, white paper that's focused on being a responsible consumer of research. We've touched on a lot of different areas of what that could look like. But I'd love to hear from each of you personally. I know you have to consume a lot of research in the work you do and just in your day-to-day life. You have two or three habits of your own that you can share that help you feel confident that you are consuming research responsibly, and that, maybe, can be something that the listeners can try to emulate.

Polly Karpowicz: [00:36:34] Some of the things we already said—know the basics and just put a little plug for…, definitely read the paper. But at the end, if there's anything in particular you're interested in learning more about, we included free online and in-person education sources that we know about, and Marc Beebe from IEEE suggested one where he actually goes to learn more, and he's an expert. So figure out where you can find training. We do have a list for you. Keep reading. We've gone through the basics, but notice research methods or particular concerns are related to research in your organization, and then take a look at whether there's some more training that you might want to go for. We also have additional readings and some reflection questions. So it kind of falls under the umbrella of—keep learning and keep asking questions, be persistent and find help where you can, whether it's this kind of training or you might have a friend who's a research expert; have them on speed dial.

Elizabeth Engel: [00:37:33] I would say when you're looking at research that already exists, when you're doing that secondary research, read the methods section. Good-quality research will tell you what they did and how they got to the conclusions that they got to. It can be a little dry sometimes, but go ahead and read it. When you're conducting your own original research, it's really important, you know, all the stuff that Polly talked about—being aware of all various types of bias that can creep in at the various points in the process of conducting your study and take affirmative steps to mitigate those biases. But most of all, I would just say be skeptical and ask questions. Jeff, as you talked about, ask questions of: "Who's funding this research?" "Who's sponsoring this research?" "What are their perspectives, if they have any?" "Who was or wasn't included?" Using some of the things that Polly talked about with regards to validity, statistical significance, and all that kind of thing, appropriately. "Are they trying to make this research say more than it does?" Just be skeptical and ask questions.

Jeff Cobb: [00:38:39] I think it's a great point. Very often, you can find out that there is an agenda, there is a bias there. People are bringing a certain perspective, but it doesn't mean you can't use the research. It just means you need to have that lens in mind as you're using the research so that you're careful about it because, like you said, we all have biases. We're not going to get rid of that, so we wouldn't be able to use any research if we were going to say we have to have non-biased research. It's all got some bias in it. But just be aware of what that is so you can factor it into what you're doing.

Celisa Steele: [00:39:15] Elizabeth Engel is chief strategist at Spark Consulting, and Polly Karpowicz is an association consultant. You can find links to the Spark Consulting site and Polly's profile on LinkedIn in the show notes for this episode at leadinglearning.com/episode344.

Jeff Cobb: [00:39:32] In the show notes you'll also find a link to the "Caveat Emptor: Becoming a Responsible Consumer of Research" white paper that Elizabeth and Polly co-authored, and we recommend that white paper to you for a deeper look at the issues we talked about in this episode.

Celisa Steele: [00:39:47] I'll also note that Elizabeth makes many more white papers freely available on the Spark Consulting site, so we encourage you to check all of those out as well. Again, you can find the link to all her white papers at leadinglearning.com/episode344.

Jeff Cobb: [00:40:05] We'd be grateful if you would rate the Leading Learning Podcast on Apple Podcasts or wherever you listen, especially if you find the show valuable. Celisa and I would personally appreciate it, and ratings help us show up when people search for content on leading a learning business. Go to leadinglearning.com/apple to leave a rating.

Celisa Steele: [00:40:24] And please spread the word about Leading Learning. You can do that in a one-on-one conversation with a colleague or a personal note, or you can do it through social media. In the show notes at leadinglearning.com/episode344, you'll find links to connect with us on Twitter, LinkedIn, and Facebook.

Jeff Cobb: [00:40:41] Thanks for listening, and see you next time on the Leading Learning Podcast.

[music for this episode by DanoSongs, www.danosongs.com]