Ten Reasons NOT to Measure Impact:

Prioritizing Learning Effectiveness Over Performative Vanity Metrics

WORK-LEARNING RESEARCH

Will Thalheimer, PhD, MBA

Ten Reasons NOT to Measure Impact: Prioritizing Learning Effectiveness Over Performative Vanity Metrics

Evaluating our learning programs is one of the most important things we do as Learning and Development professionals. Rigorous evaluations help us know what's working and what's not, what to keep and prioritize, and what to improve or discard.

Because of its importance, we must get learning evaluation right. Unfortunately, there are many misconceptions about evaluation floating in the L&D ecosystem, too often nudging us into faulty thinking as we plan to measure learning.

One of the most counterproductive ideas in the L&D field is also one of the most common. Even today. That idea is this: Measuring the impact of our programs should be the overriding priority in learning evaluation. This idea is harmful enough that it deserves a firm rebuttal.

In this article, I will highlight ten reasons that measuring impact—as a priority—is a deeply flawed practice. To be clear, I'm not saying we should never measure impact. But prioritizing the measurement of impact almost always (1) leaves us blind to the most critical factors influencing our learning results, (2) pushes our focus toward performative not substantive data, and (3) wastes money in the creation of vanity metrics.

Even more harmful—and this has been a hidden harm for many decades—when we aim to look good with a performative approach to learning evaluation, we are saying to ourselves and to the world that we in L&D lack abiding foundations. When we take a performative approach, we are signaling that we don't have principled diagnostics that enable us to discover underlying causes, troubleshoot, and prescribe. When we measure to pander, we leave ourselves blind to the deeper currents within our own work. We also push ourselves toward a state of subservience, nudging ourselves to kowtow rather than lead.

We have within us—as an L&D profession—foundational wisdom about learning and development. We should start there in all our work, including in the critical work we do in evaluating learning.

What Do We Mean by Learning Impact?

Impact implies that we've caused something important to happen—that our learners have not only learned, but they have been able to use what they've learned in their work or in their lives.

Impact can also mean that our learners have used what they've learned to make good things happen, to create benefits, to achieve positive results.

Impact can be negative of course. Learners could use what they've learned in a way that produces a negative result, creates harm, or triggers mistakes. We don't aim for negative impact, but ignoring the possibility makes us less vigilant.

In recent decades, it has been common parlance to associate "impact" with job performance and business results. We have sometimes focused only on "the business" or "the organization" as the sole stakeholder, ignoring the impact on learners and others. A more complete list of stakeholders might include beneficiaries, learners, the organization, customers, sponsors, coworkers/families/friends, investors, community, society, and the environs.

In doing learning evaluation, "impact" has been used to refer to Levels Three and Four of the Kirkpatrick-Katzell Four-Level Model; also Level 5 (ROI) in the Phillips' framework; also LTEM Tier-7 (Transfer to Work Performance), and LTEM Tier-8 (Effects of Transfer).

Some people have expanded the definition of "impact" to include all learning outcomes, whether that be business results, knowledge, or motivation—but this framing is not common and is not what I mean in this article.

The Ten Reasons

Ten reasons that prioritizing the measurement of impact is a bad idea.

Reason 1. We must measure leverageable learning factors.

When we only measure impact, we ignore the heart and soul of learning, hiding the factors we can actually improve.

Here's what's needed to have a successful learning program: Inherent in our learning designs, we need to ensure the following are achieved.

1. ***Content:***
   Learners encounter valid, credible, relevant content.
2. ***Attention:***
   Learners pay attention in a manner that helps them learn.
3. ***Comprehension:***
   Learners comprehend accurately key knowledge and skills.
4. ***Motivation to Apply:***
   Learners are motivated to apply what they've learned.
5. ***Decision Making and Task Performance:***
   Learners are able to make decisions and carry out tasks using what they've learned.
6. ***Remembering:***
   Learners remember what they've learned.
7. ***Application:***
   Learners are prepared to act, are resilient, and can overcome obstacles in applying what they've learned.
8. ***Primed:***
   Learners are primed for contextual triggering of useful thoughts and ideas.
9. ***Resourced:***
   Learners have access to resources, job aids, and other prompting mechanisms.
10. ***Enabled for Learning:***
    Learners continue to learn in their work.

This is not a full list but comprises most of the key learning-design goals required to maximize learning.

Note that when we measure just impact—work performance and work results—we directly measure none of these leverageable learning factors. Look at the list above. When we measure only impact, we are blind to learning! We are missing the central focus of our work. Seen in this light, it makes little sense to focus only on measuring impact.

If we don't measure these learning factors, we can't understand what's happening in our learning programs. We don't know how to make improvements. We don't know what's working in our learning designs. We don't know what to keep or what to prioritize for improvement.

If we don't measure these factors, we can't support ourselves in having a growth mindset. How can we learn ourselves if we don't have evidence to think about?

When we measure multiple learning factors we gain more reliable data. Triangulation enables us to see how a program's learning factors relate to each other. If our learners haven't fully comprehended the knowledge they need, they won't be able to make decisions based on that knowledge. They can't remember what they don't fully comprehend.

Measuring learning factors gets us thinking from our foundational knowledge. It enables us to work from principles and the values inherent in our profession. No longer are we focused on being performative; we are focused on being effective. No longer are we subservient—but by bringing our foundational principles into our work, we can be full partners within our organization and among our key stakeholders.

Reason 1—just reported here—is the most important reason that we shouldn't focus primarily on measuring impact, but there are at least nine other reasons.

Reason 2. Measuring impact requires a substantial investment.

We can't measure impact with a survey. Measuring impact requires tens of thousands of dollars and hundreds of hours of work—or much more.

Why is measuring impact so costly? It's costly because we have to isolate the impact of training by using comparison groups, sophisticated pretest–posttest designs, or other rigorous research designs. We have to plan our evaluation

studies, organize with many stakeholders, coordinate with IT, create or capture metrics, plan and implement statistical analyses, create and deliver reports, and debrief. Measuring impact is a huge investment. To be ironic, it's hard to achieve a return on investment in measuring learning impact.

Reason 3. Scientists have already demonstrated the benefits of training.

If we're honest, we'd recognize that we are not experts in research methodology—which is what is required when we measure impact. To measure the impact of training we have to use some sort of experimental approach to be sure that it's our training that has created impact rather than other factors like the economy, organizational change, management, or business operations.

Who is really good at doing this kind of research? Scientists! Have they measured training impact? Yes! Did they find training typically produces positive results? Yes they did! Indeed, Garavan and five other researchers found that investments in training were associated with better organizational performance, and this association has been growing over the years as learning teams improve their practices. Uslu and two other scientists found that training has a positive impact on attitudes and motivations. In a classic research review, several world-renowned training researchers—Salas, Tannenbaum, Kraiger, and Smith-Jentsch—reviewed the scientific research and concluded that training produces positive outcomes.

Even specific types of training have been studied and shown benefits. Lacerenza and four other researchers looked at 335 scientific studies of leadership training and found strong benefits demonstrated in learning results, behavior change, and organizational outcomes. In addition, team training has been studied and found to produce robust positive results.

I could continue with other examples, but here's the main point. Why are we—we who are not as qualified as these scientists—why are we spending money measuring training impact? Why are we—we who are likely to be much more biased in hoping for positive results—why are we evaluating our own impact?

FYI, for the research cited in this section, you can see the scientific citations at the end of the article.

Of course, general studies like these don't tell us about our own results, but they do raise the bar for determining whether to undertake our own impact studies. If

training typically produces benefits, is it worth the extra investment to prove that *our* training creates benefits? Or would we be smarter to invest in evaluating the critical learning factors that lead to effectiveness and impact?

Reason 4. Measuring our own success is open to bias and suspicion.

Have you ever watched Olympic gymnasts or skaters? Do they score themselves? No they don't. Why not? Why do team sports have referees? Why don't tournament tennis players call their own balls in or out? *"You've got to be kidding me!"* We humans tend toward bias when we root for our home team, when we watch our kids play sports, or when our own outcomes are at stake. We usually don't intentionally take advantage, but we just can't help ourselves. We routinely interpret events in our favor. Scientists call this "motivated reasoning."

There's a famous scientific study about a penalty strewn football game between Princeton and Dartmouth universities (Hastorf & Cantril, 1954). Students from both schools were shown the exact same game footage, but they "saw" the game differently. When asked to make note of all the rules infractions they saw in the film of the game, their responses were biased to favor their own team. Indeed, students from one of the universities noted twice as many infractions committed by the other team than the other side had noted about themselves.

There are many scientific studies to show these types of bias. Balcetis and Dunning (2006) conducted five studies on visual judgments and wrote an article titled, *"See what you want to see: Motivational influences on visual perception."* Kunda (1990) reviewed the scientific research and made such a strong case for "motivated reasoning," that his article was reprinted as a book chapter and has been cited in over 3,000 other scientific articles.

Given this human tendency, how should we think about evaluating the success or impact of our own training programs? How likely are we to conduct fair evaluations and draw objective conclusions when we are focused primarily on our success or failure in achieving impact?

What are our organizational stakeholders likely to think? Are they likely to believe our results when we ask learners to subjectively report ROI estimates or impact examples? Will they get suspicious when we perennially show large impact improvements? Even if we are completely fair in evaluating learning, shouldn't we try to avoid this perceived conflict of interest?

Reason 5. CEOs don't want us to invest in performative metrics.

Imagine this. Our senior leaders bless a $100,000 budget allocated to learning evaluation. What would they prefer? Would they rather we use that money to prove we've been successful, or would they rather that we use that money to diagnose the factors that make us successful and the factors that harm our learning outcomes? Given the choice, senior leaders are likely to prefer us to use diagnostics that help us improve our decisions and our learning designs rather than searching for proof of past successes. In short, smart CEOs will want us to focus on improvements not performative vanity metrics.

FYI. I'm using the term "performative metrics" to mean metrics optimized to make us look successful rather than improve performance. Vanity metrics are synonymous.

To keep our seat at the table, we must be seen as trustworthy. Aren't we likely to be seen as more trustworthy when we measure to improve our work rather than when we look to find evidence that we've been successful?

Reason 6. L&D investments do not even register at the scale of organizational funds.

The average organization invests 1/400th of its revenue in L&D. That's a minuscule amount. Why would senior leaders care if such a tiny investment paid off? Why waste organizational funds evaluating learning impact if the investment is so small? But wait, that one-quarter of one percent investment in L&D represents ALL of the L&D work that we do in creating the hundreds of courses we create.

Say we have 100 courses exactly. Evaluating one of those courses, which is almost always what we do when we conduct an impact study—would be evaluating an investment of 1/40,000th of the organization's revenue. Is that really worth doing just to prove impact?

At the end of the article, I will detail the reality of these numbers.

Reason 7. Measuring outcomes is a weak approach for assessing value.

Let me quote myself directly from page 96 in *The CEO's Guide to Training, eLearning & Work: Empowering Learning for a Competitive Advantage:*

"The results of any effort depend not only on the original decisions that were made, but also on luck, on random noise, on the level of risk that was taken, and on good or bad execution. Also problematic is that outcomes depend on many factors—and outcome data examines them as a whole, essentially ignoring the impact of the individual factors. As Jacob Bernoulli, famous Swiss mathematician, once said: "One must not decide about the value of human actions from their outcomes."

The Bernoulli quote comes from Olivier Sibony's book: *You're About to Make a Terrible Mistake!: How Biases Distort Decision-Making and What You Can Do to Fight Them*.

The problem for us is exacerbated because we typically only measure one or two of our courses at LTEM Tier-7 Transfer to Work Performance or Tier-8 Effects of Transfer. If we measured many times, we could rule out luck and random noise, but because we measure impact only occasionally, we are at a high probability of obtaining unreliable results.

FYI. The link to get a copy of LTEM (the Learning-Transfer Evaluation Model) is provided at the end of the article.

Reason 8. Measuring impact will not produce the credibility to prevent L&D layoffs.

Learning-evaluation squawking heads have been admonishing us for decades. *"If you don't measure impact, when hard times hit an organization, the L&D team will be among the first to be laid off."* This is a flawed misdirection. It's also led to a gross overspend on learning-impact studies over the years.

Here's the reality. Even if we measured every training course's impact and proved the benefits of our courses, we will still be among the first to be laid off when our company hits rough waters. Indeed, laying us off is likely damned sensible.

When the human body gets stuck in sub-freezing temperatures, our bodies are smart enough to use our limited energies to keep our brains, hearts, lungs, and other vital organs warm—while sacrificing toes and fingers to frostbite. Smart

CEOs sacrifice L&D to save operations, finance, marketing—and other vital functions of the business—regardless of what we have done previously with our learning evaluation.

Moreover, why the hell do we think that wasting money creating performative vanity metrics brings us credibility? Smart CEOs would certainly think more highly of us if we measured things that gave us insights into our true effectiveness—insights we could use to make better decisions in learning design, development, and deployment.

Reason 9. We should aim for a growth mindset, not a performative mindset.

When an individual is acting with a growth mindset, they feel that if they work hard and are open to learning, they can become more competent and more successful. A performative mindset on the other hand, leads people to think that hard work and learning don't pay off—that instead their goals and actions should focus on looking good.

As Mary C. Murphy shows in her excellent book, *Cultures of Growth*, based on tons of scientific research, teams and organizations can also have growth mindsets. Those who act with growth mindsets are happier, less stressed, more creative, more productive, and more successful. Satya Nadella, CEO of Microsoft, transformed an underperforming company into a technological powerhouse by stoking a growth-mindset revolution within Microsoft.

What do we want for our learning teams? Shouldn't we be in the growth-mindset business ourselves? Unfortunately, when our primary aim is to look good through performative impact metrics, we lose any growth mindset tendencies we might have had. We need to measure learning factors, not just impact, to enable us to learn what's working and what's not.

Reason 10. We must stop groveling and instead follow our own principles and practices.

When we feel a need to prove our worth, we are in a position of subservience, one that focuses our minds away from our own principled practices. We have strengths as a profession—from science-of-learning wisdom to learning technology to persuasion—that guide our work. We should focus starting from our inner competences and bring these forth into the world. By focusing too

heavily on proving ourselves, we tend to look outward first and forget the value we can provide.

We Can Measure Both Impact and Learning Factors

We can, of course, measure impact while also measuring critical learning factors. Where we have the time and money to invest, and where organizational stakeholders demand impact measurements, we may be wise to measure both impact and learning factors.

Let's be clear about the causal links here.

1. Measuring learning factors helps us create more effective learning.
2. More effective learning leads to greater learning impact.
3. Measuring impact does NOT lead to greater learning effectiveness.

There is one detour to acknowledge. Sometimes, when we have organizational stakeholders who don't understand learning evaluation, they may give us—us on the learning team—the benefit of the doubt if we engage in an impact study. This may feel like success because we can carry on our L&D work. But we should be honest with ourselves and realize that our temporary satisfaction in gaining stakeholder acceptance is not a substitute for continuous improvement.

And note the caveat at the top of this section. Sometimes we may need to do an impact study *"where we have the time and money to invest."* Yet this is an almost impossible premise, because we hardly ever have enough time and money to invest in learning evaluation. So again, we should ask ourselves: "Why should we use our scarce evaluation budget on performative measures of impact—especially when they require major investments?"

Or maybe we should ask *"When?" "When should we use our limited evaluation budget on measures of impact?"*

Here are considerations to keep in mind when deciding whether to invest in an impact study:

1. If you're just measuring impact and you're not measuring learning factors, you won't learn what to improve and what to keep in your learning designs. Try to avoid measuring impact only.

2. If you measure impact without having previously measured learning factors, you're almost certainly evaluating a learning program that is producing less impact than it otherwise might be. If instead you had previously measured learning factors and improved your learning design, the program's impact would certainly have been greater.

3. By measuring learning factors and impact together, you'll have multiple data points to help you draw conclusions, discern patterns, and tell a compelling story. Suppose you use a pre- to post-training evaluation design and find improvements in your measured KPIs. Your stakeholders will likely be skeptical—because the improvements might be caused by something other than the training. But what if you also measure foundational knowledge pre and post, and decision making pre and post and find significant improvements? With two data points showing learning improvements and one showing KPI improvements, both you and your stakeholders can be much more confident that the training created impact.

4. If stakeholders ask us to measure impact, we should engage in a healthy conversation to describe why we must measure learning factors and describe the opportunity costs of investing resources measuring impact.

5. Sometimes we need case studies focused on impact to garner credibility. Credibility can give us the autonomy and resources we need to make design and evaluation improvements. When we can report that our new sales training improved revenues per salesperson by 7% while showing that we used a credible evaluation design, we will likely be allowed leeway to operate as effectively as we know how. Of course, we should keep in mind that we won't know how to operate to maximum effectiveness without evaluating learning factors.

6. Ideally, we'd like to persuade our key stakeholders that our evaluation practices are rigorous, thoughtful, and that they enable us to create effective learning interventions. We'd like to have them support us when we want to invest in measuring key learning factors rather than in creating performative vanity metrics.

A Future Dream of Measuring Both

Maybe sometime in the future, where funding and time are not an issue, and where we have the sophistication to pull it off, we might be able to draw causal links from measures of learning factors to measures of impact. Some organizations have already attempted to draw these connections, but not many, and not too successfully.

But imagine the benefits. Let's say we run a course all the time, with many learners. We measure the heck out of it. We use performance-focused learner surveys, we measure foundational knowledge, we measure decision making and task performance, we measure job behaviors and business results. We categorize and index our learning design techniques. We utilize sophisticated statistics—maybe advanced regressions—to look for the causal links between our designs, our evaluation measures, and our impact measures.

Now obviously, such measurement will be very expensive in the short term. But by understanding causal relationships between these various factors, we might be able to save money in the future. Impact studies are the most expensive learning evaluations. But what if we could predict the likely impact based on learner surveys, knowledge questions, and scenario questions? Maybe we could streamline our evaluations while still getting reasonably good data about likely learning impact.

Conclusions

In this article, I've made the case that when we prioritize the measurement of impact, we are often wasting money, fooling ourselves and our stakeholders, and failing to be true to our professional principles and foundations. We may quibble with some of the ten worries above, but certainly the weight of evidence suggests that we should abandon the notion that measuring impact is the highest priority in learning evaluation.

In my learning evaluation consulting, in my conference talks and keynotes, and in my LTEM Boot Camp workshop, I have witnessed over and over the siren song of "impact." And look around. Industry competency models organize evaluation around "impact." Evaluation vendors shout "impact" in their marketing. Conference sessions admonish us for not doing enough to measure "impact."

I hope with this article, maybe not quickly or fully, but I hope we can see that learning evaluation should give us data that we can use to improve the effectiveness of our learning interventions.

When we measure learning factors, we make it possible to maximize impact.

Citations on the Benefits of Training

I added some citations to scientific studies in the article above, specifically about the general positive benefits of training. To save myself time, I'm copying the chapter notes from a chapter in my book, *The CEO's Guide to Training, eLearning & Work: Empowering Learning for a Competitive Advantage*.

This is the recent meta-analysis that found strong evidence for the relationship between training and organizational performance. To be clear, they found that investments in training were positively correlated with business performance. They also found that training's impact has been increasing over time:

- Garavan, T., McCarthy, A., Lai, Y., Murphy, K., Sheehan, M., & Carbery, R. (2021). Training and organisational performance: A meta-analysis of temporal, institutional and organisational context moderators. *Human Resource Management Journal, 31*(1), 93–119. https://doi.org/10.1111/1748-8583.12284

Many of the same authors also highlighted weaknesses of measuring the organizational impact of training. Specifically, researchers made recommendations to themselves that more research and improved methodologies were needed to ensure that training's causal impact can be more clearly supported in the research.

- Garavan, T., McCarthy, A., Sheehan, M., Lai, Y., Saunders, M. N. K., Clarke, N., Carbery, R., & Shanahan, V. (2019). Measuring the organizational impact of training: The need for greater methodological rigor. *Human Resource Development Quarterly, 30*(3), 291–309.

Here is another recent meta-analysis that demonstrates the positive impact of training. These researchers focused on the benefits of training on attitudes and motivations.

- Uslu, D., Marcus, J., & Kisbu-Sakarya, Y. (2022). Toward optimized effectiveness of employee training programs: A meta-analysis. *Journal of Personnel Psychology, 21*(2), 49–65.

Here is a classic research review of the training field:

- Salas, E., Tannenbaum, S. I., Kraiger, K., & Smith-Jentsch, K. A. (2012). The science of training and development in organizations: What matters in practice. *Psychological Science in the Public Interest, 13*(2), 74–101.

In addition to training's impact on organizational performance, researchers who take care in investigating specific types of training have found that training typically creates robust benefits.

In a recent meta-analysis that covered 335 studies, leadership development training led to strong benefits as rated by participants and demonstrated in learning results, behavior change, and organizational results.

- Lacerenza, C. N., Reyes, D. L., Marlow, S. L., Joseph, D. L., & Salas, E. (2017). Leadership training design, delivery, and implementation: A meta-analysis. *Journal of Applied Psychology, 102*(12), 1686–1718.

Team training—that is, training teams to work together more effectively—has been found to produce robust, positive outcomes.

- Hughes, A. M., Gregory, M. E., Joseph, D. L., Sonesh, S. C., Marlow, S. L., Lacerenza, C. N., Benishek, L. E., King, H. B., & Salas, E. (2016). Saving lives: A meta-analysis of team training in healthcare. *Journal of Applied Psychology, 101*(9), 1266–1304.

In addition to these results, researchers continue to examine factors that promote training improvements. For example, a recent meta-analysis showed that the work context impacts training results, with key factors being the learners' motivation to transfer, and peer and supervisor support for training application.

- Hughes, A. M., Zajac, S., Woods, A. L., & Salas, E. (2020). The role of work environment in training sustainment: A meta-analysis. *Human Factors, 62*(1), 166–183.

Researchers have also examined learner motivation to tease out the factors that are most important in creating the benefits elicited by such motivation.

- Chung, S., Zhan, Y., Noe, R. A., & Jiang, K. (2022). Is it time to update and expand training motivation theory? A meta-analytic review of training motivation research in the 21st century. *Journal of Applied Psychology, 107*(7), 1150–1179.

Researchers have looked at pre-training interventions and found which approaches create more benefits.

- Mesmer-Magnus, J., & Viswesvaran, C. (2010). The role of pre-training interventions in learning: A meta-analysis and integrative review. *Human Resource Management Review, 20*(4), 261–282.

Researchers have looked at after-action reviews (AARs) to find out which components are most important in creating AARs' benefits.

- Keiser, N. L., & Arthur, W. (2022). A meta-analysis of task and training characteristics that contribute to or attenuate the effectiveness of the after-action review (or debrief). *Journal of Business and Psychology*. Advance online publication.

Researchers have looked at online training to determine what works to keep learners engaged.

- Lee, J., Sanders, T., Antczak, D., Parker, R., Noetel, M., Parker, P., & Lonsdale, C. (2021). Influences on user engagement in online professional learning: A narrative synthesis and meta-analysis. *Review of Educational Research, 91*(4), 518–576.

The conclusion from these many examples—and these represent only a few of the vast numbers of studies conducted on training and workplace learning—is that (1) there is strong evidence that training works and (2) some specific learning methods work better than others.

Citations on Self-Serving Biases

Balcetis, E., & Dunning, D. (2006). See what you want to see: Motivational influences on visual perception. *Journal of Personality and Social Psychology, 91*(4), 612–625.

Hastorf, A. H., & Cantril, H. (1954). They saw a game: A case study. *The Journal of Abnormal and Social Psychology, 49*(1), 129–134.

Kunda, Z. (1990). The case for motivated reasoning. *Psychological Bulletin, 108*(3), 480–498.

Calculations

In the above article, I made the claim that L&D costs per year represent one-quarter of one percent (0.0025) or 1/400. Here, I will describe the calculations for that number.

I also reported that L&D costs per year per employee are approximately $1,500. How did I make that calculation?

First, I hired a financial expert to see if he could find numbers reported in corporate annual reports for the level of L&D expenditures. He could not. They seemed always to be subsumed within HR costs. So, I gave up on that idea.

Second, I decided to calculate the figure myself, utilizing data from L&D industry trade associations. Here's what I found:

- ATD, the largest United States trade association in L&D—in its State of the Industry Report—reported training costs per employee from 2020 to 2024 as follows: $1,267, $1,280, $1,220, $1,283, and $1,254.
- Training Magazine, also US based, reported average expenditures for employees in 2024 to be $774, in 2023 to be $954, and in 2022 to be $1,207.

I also wanted international figures, so I relied on ChatGPT 5 (in Thinking mode), which produced the following numbers:

- United Kingdom (all employers, all sectors) — Average £1,700 per employee (2024), down from £1,960 (2022, both in 2024 prices). Source: Official Employer Skills Survey. In United States Dollars (USD), 2022 = $2,203, 2024 = $2,173.
- Germany (all employers) — Average €1,347 per employee (2023), from the IW Köln Continuing Education Survey; also see the German employers' federation summary showing an earlier €1,236 split into direct (€629) and indirect (€607) costs. Sources: DIE WELT, Haufe.de News und Fachwissen, Die Arbeitgeber. In USD = $1,420.
- Australia (private sector, L&D budgets) — Deloitte Access Economics/RMIT Online estimate L&D spending rising ~15% in 2024; media coverage from the study pegs about A$1,538 per employee (2024), up from A$1,334 (2023). Sources: Deloitte, Accounting Times. In USD, 2023 = $886, 2024 = $1,015.

- Ireland (national CVTS) — €661 cost per participant in 2020 (pandemic year sharply lowered activity/spend). Sources: CVTS 2020, Central Statistics Office. In USD = $754.
- Canada (employers) — No single national average released recently; in the BCC/BHER Skills Survey, 45% of employers reported spending over C$1,000 per employee (2022). Sources: Future Skills Centre review.

The per-employee costs for L&D range from about $700 to about $2,200. The average of these numbers—and remember this is a rough accounting—is about $1260. I used $1,500 to be conservative, allowing for costs that might be hidden.

Now that we know the cost per employee, we can use that number to figure out how much companies spend for training. For a company with 50,000 employees, we would multiply $1,500 by 50,000, getting 75 million dollars. We can then use this figure as the total L&D costs for that company and divide it by revenues. So, if our 50,000-employee company brings in 30 billion dollars (which is typical for a Fortune 500 company), we would divide 75 million by 30 billion and we'd see that the L&D costs per year represent one-quarter of one percent (0.0025) or 1/400.

Of course, the numbers above represent a hypothetical company. How do we get a more credible calculation? Let's look at Fortune 500 companies because they are the most studied. In 2024, the most recent year in which we have complete information, Fortune 500 companies earned 18.8 trillion dollars in revenue. They also had 31 million employees.

So, if we take the $1,500 per employee training costs and multiply by 31 million employees we'd have total training costs of $46.5 billion dollars. If we took that number and divided it by 18.8 trillion in revenue, we'd find that company L&D costs would be 0.247 percent, or rounded off, one-quarter of one percent, or 1/400.

We could also do this calculation differently, using revenue generated per employee divided into the costs per employee for training. ChatGPT found several sources for revenue per employee. Fortune 500 = $642,000 per employee. Global Fortune 500 = $585,000 per employee. CSIMarket.com has the latest 2025 Quarter 2 estimate of $601,000 in revenue per employee.

Let's use $600,000 in revenue per employee and divide that into our $1,500 in training costs per employee per year. And guess what, it's one-quarter of one percent.

Resources for Further Learning

- Will's CEO Book — https://amzn.to/4674JGS
- Will's Book on Learner Surveys — https://amzn.to/3x62Zxt
- LTEM Report and Model — https://www.worklearning.com/ltem/
- Katzell's Contribution (Kirkpatrick NOT Originator) — https://is.gd/Katzell
- Meta-Analyses on Learner Surveys — https://bit.ly/LowCorrelation
- Dangers of Building Learner Surveys Alone — https://bit.ly/Dangers-Surveys
- 20 Benefits of Learner Surveys — https://bit.ly/20benefits-LS
- Common Mistakes in Evaluation — https://bit.ly/evaluation54mistakes
- Learning Data is Often Crap Data — https://bit.ly/crapdata
- Will on LinkedIn — https://www.linkedin.com/in/willthalheimer/
- Email me — info@worklearning.com

My Learning Evaluation Workshops

- LTEM Boot Camp Workshop -- https://bit.ly/LTEM_Boot_Camp
- Learner Survey Workshop -- https://bit.ly/Will-Learner-Survey-Workshop