

Line of Sight.

You cannot manage a skills gap you cannot see. Most organisations are being asked to close one with no instrument to measure it.



Juliette Denny

Learning scientist · Author of *Learning to be Human* · Founder, Growth Engineering & Zavmo

The argument in one page

Every organisation in Britain is now being told to close its skills gap. Almost none of them can see it. We have built an entire management discipline on top of a measurement we do not take, and then we wonder why the spending does not show up in the results. This paper argues that the binding constraint is not budget or willingness. It is instrumentation.

- ① **The gap is real and it is inside the building.** Skill-shortage vacancies stand at **531,200**, over a third of all vacancies.² But 15% of employers also report gaps in the staff they already employ, affecting around 1.72 million workers.² The hiring market is the visible half. The other half is already on your payroll.
- ② **We are being asked to prove something we cannot observe.** Skills England is explicit that the education pipeline alone will not meet employers' needs, and asks employers to demonstrate the return on their training.¹ It is a fair ask. For most organisations it is not an answerable one.
- ③ **The appetite is not the problem.** Of L&D functions surveyed, **98%** say they want to measure the business impact of learning. **62%** believe they are able to. Only **24%** have the budget to do it.⁴ The gap between wanting and being resourced is where line of sight dies.
- ④ **A skills taxonomy is a map, not an instrument.** Most organisations answer "what skills do we have" with a framework somebody wrote. That describes intent. It records what a role is supposed to require, not what any person can currently do, and it goes stale the week it is signed off.
- ⑤ **Line of sight needs three things, and most estates have none of them.** A shared vocabulary that outlives a reorganisation, evidence captured per person and per skill as a by-product of real work, and a route from that evidence up to the strategic question the board actually asked.

The sections that follow set out why the instrument is missing, why the obvious substitutes fail, what a working line of sight requires, and what changes when an organisation finally has one.

SECTION 01

Managing something nobody can see

Ask a finance director how much cash the business holds and you get a number, dated, reconciled and auditable. Ask the same person how much capability the business holds and the question does not really parse. There is no ledger. There is a headcount, a training spend, and a set of impressions.

This is not a failure of seriousness. Money has had double-entry bookkeeping since the fifteenth century. Capability has had nothing equivalent, and so it has been managed by proxy: how many people

attended, how many courses finished, how much was spent. Those proxies were tolerable while skills changed slowly. They are not tolerable now.

39%

of the core skills workers use are expected to change by 2030³

63%

of employers name skills gaps as the top barrier to transformation³

140%

increase since 2022 in the rate at which people add new skills⁵

Read those three together and the management problem is obvious. The thing you are trying to steer is moving faster than your instrument samples it. An annual training needs analysis, in a workforce whose core skills turn over by two fifths within five years, is a photograph of a moving object taken once a year.

Meanwhile the money is going the other way. Employer investment in training has fallen **19% in real terms since 2011**, from £55.4 billion to £44.8 billion, at the same time as the demand for skills has climbed.¹ Adult participation in learning fell from 52% to 42% in a single year.⁶ We are spending less, on fewer people, against a faster-moving target, and measuring the whole thing by attendance.

A note on what this paper is not arguing. None of the above means training does not work. It means we cannot currently tell which of it works, for whom, and for how long. Those are different claims, and conflating them is how good programmes get cut alongside bad ones.

SECTION 02

Why the skills taxonomy is not the instrument

Faced with the question, most organisations reach for a skills framework. Somebody, often a consultancy, produces a structured list of the capabilities each role requires. It is presented as the answer to "what skills do we have". It is not, and the reason matters.

It records intent, not reality

A taxonomy says what a Procurement Manager is supposed to be able to do. It says nothing about whether the four Procurement Managers you employ can do it. The distance between those two statements is the entire subject of this paper, and a framework alone cannot close it because it never looks at a person.

It is written once and ages immediately

Frameworks are expensive to produce, which means they are produced rarely. A document refreshed every two or three years is describing a workforce whose core skills turn over by 39% within five.³ By the second year it is describing an organisation that no longer exists.

It is usually private, so nothing can be compared

Most in-house taxonomies invent their own vocabulary. That makes them unusable against anything outside the company: a qualification, an occupational standard, a labour-market signal, or the same role at the organisation you just acquired. A private language is fine for internal conversation and useless as an instrument, because an instrument's value comes from comparison.

And self-assessment cannot rescue it

The common fix is to ask people to rate themselves against the framework. This produces data quickly and it produces confidence, but the two are not the same thing. A self-rating measures how a person feels about a skill on the day they were asked, which is a real signal about confidence and a poor one about capability. Building a workforce plan on it is building on sand.

None of this makes taxonomies worthless. A shared vocabulary is one of the three things line of sight requires, and it is the one most organisations already have. The error is believing the vocabulary is the measurement.

SECTION 03

The three conditions

A working line of sight is not a dashboard. It is three conditions holding at once, and dashboards are what you get after they hold, not instead.

One. A vocabulary that survives a reorganisation

The unit of measurement has to be stable and it has to be external. If your skills language is invented in-house, it changes when the org chart changes and every historical measurement is invalidated with it.

Britain has an unusual advantage here that almost nobody uses. National Occupational Standards describe what competent performance looks like in an occupation, and the regulated qualification framework describes learning in a public, structured way with levels, credits and assessment criteria.¹⁰ They are open, they are maintained outside any one employer, and they already carry the vocabulary. Anchoring an internal framework to them costs a mapping exercise once and buys comparability forever.

Two. Evidence captured as a by-product of work

The second condition is the one that fails most often. Evidence about what a person can do has to accumulate without anybody being asked to stop and produce it, because any measurement that depends on an extra act of administration will be done late, done partially, or not done.

This is a solved problem technically and an unsolved one in practice. The learning industry standardised on SCORM, whose final revision was published in 2009, and SCORM records essentially two things: that a person opened something and that they reached the end.¹¹ The successor standard, xAPI, was ratified as IEEE 9274.1.1 in 2023 and records statements of the form actor, verb, object.¹¹ The difference is not

technical housekeeping. One standard can only tell you somebody finished. The other can tell you what they did.

The discipline that matters is choosing verbs that mean something. A record of "viewed" and "completed" in a modern format is the old measurement in new clothes. A record of applied, analysed, evaluated and produced is an instrument.

Three. A route from the evidence to the question that was asked

The third condition is the one L&D functions most often skip, and it is why so many of them lose the argument in front of a board. Evidence per person and per skill is not the answer to "are we ready for this strategy". It is the raw material for the answer.

The route has to be built deliberately: from an individual's demonstrated capability, up to the capability a role requires, up to the capability a strategic priority requires, with the gap visible at each level. Without that route you have a data lake and an argument you cannot win. With it you can say which priority is under-resourced in capability terms, and by how many people.



That last figure is the honest state of the discipline. The intent is close to universal. The funding is in a quarter of organisations. Anyone proposing to build line of sight should assume they are arguing for the 24% number to move, and should build the business case accordingly.

SECTION 04

What changes when you can see

The case for instrumentation is usually made in terms of proof, and proof is the least interesting thing it buys.

You stop buying training you do not need

A large share of corporate training is bought against an assumed gap. When the gap is measured rather than assumed, the first finding is usually that some of it was already closed and some of it was somewhere else entirely. That is a spending decision, not a reporting one.

Internal mobility becomes possible on evidence

Most organisations move people on the basis of a CV, a manager's opinion and an interview. With evidence per person and per skill, the question "who could do this role with eight weeks of development" has an answer that can be produced in an afternoon and defended afterwards.

Transfer becomes something you can watch

Research on the transfer of training consistently finds that what happens after the course matters more than the course: the conditions the person returns to, the opportunity to use the skill, the support of the manager.⁸ None of that is observable through completion data. All of it is observable through evidence captured in the flow of work, which means transfer stops being a thing you hope for and becomes a thing you manage.

And the conversation with the board changes register

"We delivered 14,000 hours of learning" invites the question "so what". "Three of our five strategic priorities are short of demonstrated capability, here is where and here is the plan" is a different conversation, and it is one the finance director already knows how to have.

WHAT TO DO

Where to start, honestly

If you run learning: pick one priority, not the whole estate

The instinct is to instrument everything, and it is the reason most of these programmes die in year one. Take the single strategic priority your executive team argues about most, build line of sight for that one, and let the result make the case for the second. A narrow working instrument beats a wide plan.

If you run the business: fund the measurement, not just the training

The 24% figure above is a budgeting fact, not a capability failure.⁴ Measurement is being asked for out of the same envelope as delivery, which means it loses every time. If the board wants the return on training demonstrated, the measurement has to be a line of its own.

If you set policy: the standards already exist, the plumbing does not

Britain maintains occupational standards and a regulated qualification framework that are the envy of most economies, and almost no employer uses them as a measurement vocabulary.¹⁰ The gap is not more standards. It is the infrastructure that lets an ordinary employer connect what its people demonstrably do to the national description of what the job requires.

A CLOSING NOTE

The measurement makes the management

I have spent twenty years building learning technology, and for most of them I helped organisations count the wrong things well. Completion rates, engagement scores, hours delivered. All accurate. None of them answered the only question that matters, which is whether anybody can now do something they could not do before.

What has changed is that the counting is finally possible. The standards exist, the national vocabulary exists, and the cost of capturing evidence in the flow of work has collapsed. The reason most organisations still cannot see their own capability is not that it is hard. It is that nobody has been asked to build the instrument, because you cannot miss a measurement you have never had.

That is the argument of this paper in one line. The skills gap is not primarily a training problem. It is a visibility problem, and visibility is buildable.

Where this thinking is being built

Line of sight is what I am building into **Zavmo**, an AI learning companion that teaches against national occupational standards and the regulated qualification framework, and records what a person actually did rather than whether they finished. The evidence accumulates as a by-product of the learning itself, per person and per skill.

If your organisation is wrestling with how to see its own capability rather than its own attendance, that is the conversation I would like to have.

Read more and get in touch at juliettedenny.com · zavmo.ai



About the author

Juliette Denny is a learning scientist and the author of *Learning to be Human*. She is the founder of Growth Engineering, an award-winning learning-technology company, and of Zavmo, an AI-native learning companion built on the science of how people actually learn. Her work sits at the intersection of pedagogy, behavioural science and technology, with a single throughline: designing learning that treats people as capable of growth.

REFERENCES & SOURCES

- 1 Skills England, *Annual Skills Report 2026* (2026). "The education pipeline alone will be insufficient to meet employers' needs." Business investment in training down 19% in real terms since 2011, from £55.4 billion to £44.8 billion.
- 2 Department for Education, *Employer Skills Survey 2022* (2023). 531,200 skill-shortage vacancies, 36% of all vacancies; 15% of employers reporting skills gaps within their existing workforce, affecting 1.72 million workers.
- 3 World Economic Forum, *Future of Jobs Report 2025* (2025). 39% of core skills expected to change by 2030; 63% of employers cite skills gaps as the top barrier to business transformation.
- 4 GP Strategies & Watershed, *Measuring the Business Impact of Learning* (2025). 98% of surveyed L&D functions want to measure business impact, 62% believe they are able to, 24% have budget allocated to it.
- 5 LinkedIn, *Work Change Report* (2025). Rate at which people add new skills up 140% since 2022; 70% of the skills used in most jobs expected to change by 2030.
- 6 Learning & Work Institute, *Adult Participation in Learning Survey 2025* (2025). Participation over the previous three years down from 52% to 42% year on year.
- 7 Office for National Statistics, *International comparisons of UK productivity (ICP), final estimates: 2021* (2023). UK output per hour worked 20.3% below the United States.
- 8 Blume, B., Ford, J. K., Baldwin, T. & Huang, J., *Transfer of Training: A Meta-Analytic Review*, Journal of Management (2010). Post-training environment, opportunity to perform and support are consistent predictors of transfer.
- 9 Kirkpatrick, D., *Evaluating Training Programs: The Four Levels* (1994; framework first published 1959). The four levels of evaluation: reaction, learning, behaviour, results.
- 10 Ofqual, *Register of Regulated Qualifications*, and the UK's National Occupational Standards, maintained by sector bodies. Public, structured descriptions of qualification content and of competent occupational performance.
- 11 IEEE 9274.1.1–2023, *Standard for Learning Technology: Experience API (xAPI)* (2023), and Advanced Distributed Learning, SCORM 2004 4th Edition (final revision 2009).

© 2026 Juliette Denny. This white paper may be shared and cited with attribution. The statistics herein are drawn from the sources above; figures were current at the time of writing (September 2026). juliettedenny.com