

Measuring and Proving the Value of Learning

AN ELEARNTY VIEWPOINT PAPER

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Introduction and Background

Ask almost any Learning & Development (L&D) Director what their biggest strategic challenge is and they'll probably say something about maximising the impact they make on the business, or in some cases, proving that they really do add value to the business to avoid being outsourced! Terms like 'Added Value' and 'Return on Investment' (ROI) have now become common parlance in training departments.

But measuring and proving value for learning and training is not easy. If it was, we'd all be doing it as standard. Most evaluation of training has historically focused on feedback or satisfaction with training events, the infamous Happy Sheets. But whilst these are useful in gaining feedback on the events, they do not tell you anything about whether the learning was actually applied or whether it positively impacted business performance, i.e. whether they are really adding value.

Within eLearnity's corporate learning research, we've seen the issue of measuring and proving value as a growing trend over the past few years. Interestingly, it has been much more prevalent within the e-learning market for some time, where projects have to explicitly state ROI or value outcomes to get approved (a frequent gripe of "e-learning managers" everywhere). But now these questions or hurdles are being applied to all forms of learning, not just e-learning.

Given the growing importance of the issue, and the lack of confidence in proven mechanisms to address it, we felt this was a good area for a best practice research project. A fact confirmed by the interest and participation. The project was titled "Learning Scorecard" and ran from September to December 2003 with seven major corporate employers: B&Q, BP, BT, Coca-Cola Europe, HSBC, Marks & Spencer and Vodafone. This document provides a viewpoint of the outcomes from the project. Contact details for finding out more detailed information are available at the end of the document.

Current Practices

All of the organisations involved in the research had a need to better report the value of learning and training. In some cases, there was an explicit requirement to start reporting learning ROI information to senior management. In others, this need was internal within L&D, to make current training investment more

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effective and efficient, or to pre-empt the likelihood of such a requirement from senior management. Either way, it was important, and growing more important.

The project started by profiling the evaluation practices of each of the participant organisations, and then reviewing current practices across the group. Having done this in some detail, some interesting similarities emerged very quickly. Firstly, as all of the organisations used the Kirkpatrick model as the standard reference for training evaluation. The Kirkpatrick model defines four levels of evaluation – Reaction, Learning, Application and Impact, with level 1 evaluation commonly referred to within the training industry as Happy Sheets. There was also a common pattern for evaluation across the organisations. Most had extensive level 1 evaluation (Reaction), some level 2 (Learning), little level 3 (Application) and virtually no level 4 (Impact).

This was the profile we had largely expected from previous anecdotal research. Whilst front-line industry statistics (e.g. ASTD) may indicate a higher proportion of evaluation at levels 2 to 4, often in practice we have found this to be limited to a small subset of programmes only. Yes they are doing it, but not very frequently.

Another key finding related to the real value of the level 1 (Reaction) information, the most common focus of training evaluation. Whilst this was typically reported to senior management, the consensus was that, beyond some tactical use within L&D to manage resources and suppliers, Reaction information was largely ignored by the business as not relevant. This is because the business is interested in different information; what have people actually learnt, and whether they can apply this in the business. This information cannot be supplied from analysis of Reaction data.

Our conclusion is therefore that happy sheets should be relegated to purely a supporting role providing feedback where appropriate, rather than being the primary means of evaluation. Use them for new or sensitive training areas, but not for everything all of the time. Maybe they could be used on a sample basis for the rest, like other customer satisfaction research. The key thing is to focus your limited evaluation resources in ways that can answer the questions the business wants answered.

External Best Practice Research

Look at what other organisations do and you find a plethora of articles and case studies talking about higher levels of evaluation and studies of ROI. There is extensive coverage of the Kirkpatrick 4-level model and statistics from ASTD showing how extensively companies are now claiming to evaluate at the higher levels. But we knew from our more detailed reviews of the participant organisations that claims of applying higher levels of evaluation often turn out to be very limited in reality. Whilst organisations may claim to be measuring the behavioural and business impact of training, in reality they are probably only doing it on a few programmes i.e. by exception and not systematically.

In reality, case studies of higher levels of evaluation also tend to be retrospective and defensive. This is especially true in discussion of the ROI in training, the practice of which is heavily influenced by a few major thinkers, most particularly, Jack Phillips in the US, an author of a number of seminal books on ROI and evaluation, and along with his wife Patti, a leading proponent of ROI for learning. Jack Phillips' methods and models dominate the perspective of ASTD and many corporate learning groups, with the Phillips model commonly leading to ROI being positioned as the fifth level of evaluation.

In essence, the original Kirkpatrick 4-level model, and the Phillips ROI fifth level have become sacred cows in training evaluation. The trouble is, from our research we believe they are both wrong.

How useful is Kirkpatrick?

The Kirkpatrick model has been around so long (since 1959) and is so commonly used within L&D departments that it has become lingua franca. Talk to anyone about evaluation and they will use the Kirkpatrick terms (as we have chosen to do earlier in this document) as the basic way of classifying and communicating evaluation practice. But we have already seen from our profiling of the participant organisations that the result of using Kirkpatrick is a common pattern; lots of level 1, with limited amounts of level 2 and 3, and almost no level 4. Even if the original Kirkpatrick model doesn't imply causality between the levels, organisations still tend to start with level 1 first and then move up. But most of them don't go much beyond level 1. The outcome is therefore not good. L&D cannot tell the business whether it is adding value or not!

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Kirkpatrick also ignores the most basic information, learning activity, what we refer to in KP-terms as Level 0. Did they attend the course? Did they finish it? This is very useful data and often the most frequently reported. It is also the data most frequently collected by learning management systems, the IT systems now used to manage learning and training activity.

Kirkpatrick seems to us to be a simple categorisation and communication tool for evaluation, hence the near universal adoption of the language and levels across the training community. But the model is wrong. It has significant missing pieces. It implies false causality and sequence of the evaluation levels, and it leads to poor evaluation behaviour from training functions. In fact it is difficult to describe good practice and relate it the Kirkpatrick model. We therefore feel the time has come to reject it.

Measuring ROI

What about measuring ROI and ROI as the fifth level of evaluation?

ROI is a simple financial calculation for presenting the relative value of something. A comparison between its net benefit and its cost, expressed as a percentage.

Return on =	Net Benefits
Investment	<hr/>
	Total Cost

ROI is a way of presenting value not a new measure of value in its own right. If anything, under the Kirkpatrick model it should just be viewed as one way of presenting information on business impact, i.e. level 4. This is the view proposed by Dr. Greg Wang, another leading thinker in the US and founder of the ROI-net discussion group. We believe proposing ROI as a further level (5) of evaluation is wrong. It inflates ROI to something it is not, a level above business impact. It also assumes levels 1 to 4 are correct, something we've already rejected.

This leads us to one of the greatest challenges within the whole learning value debate, *how do you really measure the value of training and learning?* We know we can calculate the costs, although often ROI case studies take a strange view of what costs they include or not. The most obvious anomaly is often the way that staff costs are included. Sometimes the cost of learner time is not included at all, sometimes it is at cost (i.e. proportional salary cost) and sometimes it is at the opportunity cost (what would they have done if not on the training).

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Certainly we need to include the cost of learner time in the cost of learning and we should do it consistently.

We also know that we can measure aspects of the outcomes from learning. We can measure what's been learnt through assessment and testing. We can also measure whether it is being applied through reviews and 360° assessments. But how do we measure what the value of the outcomes is? This is the core of the whole evaluation problem.

In orthodox Kirkpatrick/Phillips thinking we would do this by measuring the business performance and trying to identify what part of the change resulted from the training. Whereas Dr. Wang argues this should be done by real metrics, the Phillips methodology estimates it by asking learners and their managers to estimate the impact of the learning and then adjusting the estimates to be "realistic". The metrics approach is clearly the most accurate, as it is based on real data, but it is also problematic. As well as being time consuming to set up and expensive to run, it may not even be possible to create impact metrics for many areas of training. This is the statistical approach to measurement, and whilst very appropriate for certain kinds of programmes, it is difficult and expensive to apply generally. A key question arising from our research is **what is the ROI of calculating the ROI?** If the cost of measuring the ROI is very large, that might outweigh the benefits in all but very large and expensive learning programmes.

What about estimation of benefits? Given the general acceptance of the Phillips thinking within the L&D community, some might view this as a good method. We don't agree. We believe the L&D community has latched upon estimation because it is the lesser of two evils, estimation or statistics. That doesn't make it valid. The process of learner estimation must be viewed sceptically. Regardless of how many adjustment factors are taken into account, estimation results are just that, estimates, and not measures of the value. It may simplify the maths and remove the data collection process but it does not tell us anything about *actual outcomes*. I liken it to asking a salesperson what they think they are going to sell, adjusting it for their over-enthusiasm and then claiming this is what was actually sold. Maybe this is valid for setting targets but not for your financial accounts!

Estimation may have a role for certain programmes but it is not a valid approach for calculating real value. Along with our criticisms of positioning it as

level 5, we feel that Phillips takes us down the wrong path for measuring the value of learning. We need something that is based on real measures of outcomes rather than estimates, but we also need simpler association of those measures with value to the business.

Getting Predictive – Shaping Future Value

We have already recognised that much of the ROI discussion turns out to be defensive and retrospective. In fact many of the case studies are explicitly that – look what a great job we did!

We said right at the beginning that the strategic issue for L&D was how to add more value to the business, more efficiently. If that is the case, we need our approach to measuring value to shape what we do in the future, not just justify what we did in the past. This means we need an approach that is predictive. That allows us to design future interventions and programmes to maximise the value they add, and their efficiency at achieving it.

Retrospective estimation of potential benefits, or extensive measurement of post-training changes on their own cannot do this. We need approaches that clearly identify the value to be delivered in advance, and therefore shape the way we design the learning. We can then measure the value during and afterwards to make sure we are really delivering it.

From our research, one of the better approaches focusing on predictive value is Learning Effectiveness Measurement (LEM), a methodology developed by Dr. Dean Spitzer of IBM. LEM focuses the evaluation question at the start of the process rather than at the end. It seeks to identify the key business outcomes to be affected by the learning intervention and to define the causal chain of knowledge, skills and behaviours that will impact them. This involves a detailed analysis process and development of an understanding of the business need way beyond a traditional training needs analysis process. Measurement then happens before, during and after the intervention to ensure the desired results are being achieved.

This identification of the business issues and causal chain up-front also leads to major changes in the way learning interventions are designed, frequently resulting in more directed interventions and on-the-job support rather than traditional training courses. According to IBM, this shift away from course-based solutions can often prove quite challenging for the L&D staff involved.

This all sounds great, but how much work is required to apply this process. The answer is quite a lot. And that makes LEM better suited to specific high-value projects rather than for use as a generalised tool for all learning. The initial analysis and causal chain development may take multiple people many days or weeks and require strong business consulting skills from the people involved, a significant challenge for trainers or training managers.

Bringing the Best Together

So if Kirkpatrick is not that useful, other than as a communication tool, if Phillips is suspect as evidence of value, and Spitzer's LEM methodology is too difficult or expensive to apply as a general tool to all learning, what is the answer?

Here is a summary of our current thinking resulting from the research, together with some outline structural models. These are defined in this document at a summary level only, but please contact us to discuss them in greater detail, or to discuss how they could be applied in your organisation. (see end of the paper for contact details).

First, a set of statements that could almost be defined as a philosophy of evaluation:

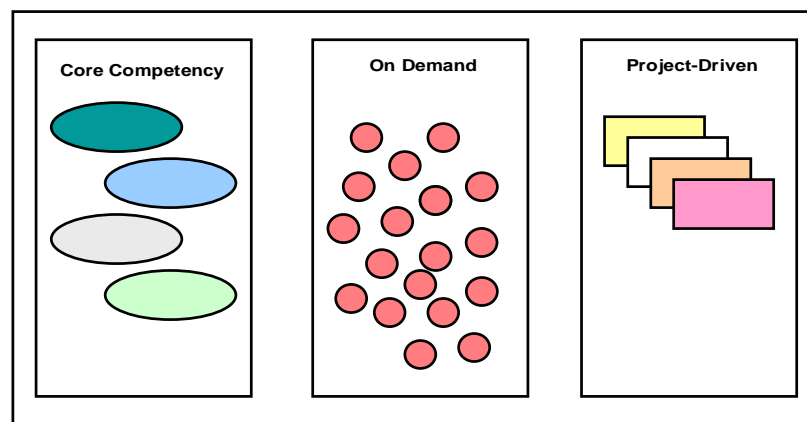
What is the best purpose of measuring the value of learning? It is to increase the value learning adds to the business, to increase the effectiveness of learning and its efficiency. In short, measuring value is fundamental to running L&D as a professional business function. It is not to justify what L&D has done historically, although that would be a by-product. It is about shaping and magnifying the value L&D adds in the future.

In order to achieve this objective, **L&D needs a coherent framework for evaluating the outcomes from its activities**; we call this the Learning Evaluation Framework. The framework needs to be generally applicable across all the principle areas of training and learning activity, and needs to provide meaningful, credible business metrics to report to senior management at an aggregate level and to business sponsors at a specific level.

Value from learning outcomes is owned and defined by the business, not by L&D. Value must be associated with measurable outcomes for the business, whether by measurable impact, by measurable behaviours, or by measurable

learning outcomes, dependent on the context of the business and the learning. This focus on measurable outcomes also defines the scope and role of L&D in delivering those agreed outcomes. It is the responsibility of the business to extract the actual value from those outcomes, not L&D.

The driver of value as well as the owner of the value equation depends on the type of learning, structured by what we call the Learning Portfolio model. The Learning Portfolio structures learning three core segments: Core Competency Development, On-Demand Learning and Project-driven Learning.



The Learning Portfolio
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Core Competency Development is owned by the business and should be valued by the business. The measurement of the value will typically be associated with the measurement of competency outcomes, assessed through learning outcomes and behaviours, rather than actual performance impact on the business. If the business says it needs new Senior Sales People qualified to a certain level and that their value is £X, it is the business's responsibility to extract that value or higher. L&D's responsibility is to develop the people to that defined level.

On-Demand Learning is driven by the individual or their direct manager who determines that specific learning is needed. Increasingly, this will be on a just-in-time basis, as ongoing development is fulfilled under Core Competency Development. On-Demand Learning consists of many discrete learning transactions, each related to specific individual needs and fulfilled through the most efficient mechanism. The arbiter of value is the individual, but it would be meaningless to measure value at an individual transaction level. Value for on-

demand learning should be measured in aggregate. This probably means relating it to benchmark data equating investment in learning to improved business performance.

Project-driven Learning is associated with specific projects or business-initiatives. The owner is the project sponsor and the driver is the project. Value is specifically linked to the specific outcomes for the project. Performance-based measures are therefore more likely but outcomes could still be behavioural or learning measures. As project-driven learning outcomes are specific, so is the design of learning interventions, which must be specifically linked to achieving those outcomes.

These drivers and value assessments can be summarised in the following matrix:

Valuing the Learning Portfolio	Core Competency	On Demand	Project-Driven
Driver	Organisation	Individual	The Business Project
Success	Performing role with requisite knowledge / skills	Addressed specific learning needs	Meeting specific project goals
Level of Assessment	Behaviour	Learning	Performance
Valuation	Organisationally (Human Capital)	Aggregated (Benchmarked)	Directly (Outcomes)

By segmenting learning using the Learning Portfolio model, we are able to develop more explicit strategies for measuring value, and align them to the portfolio segments. These components of learning value can then be aggregated to provide an overall picture (see later).

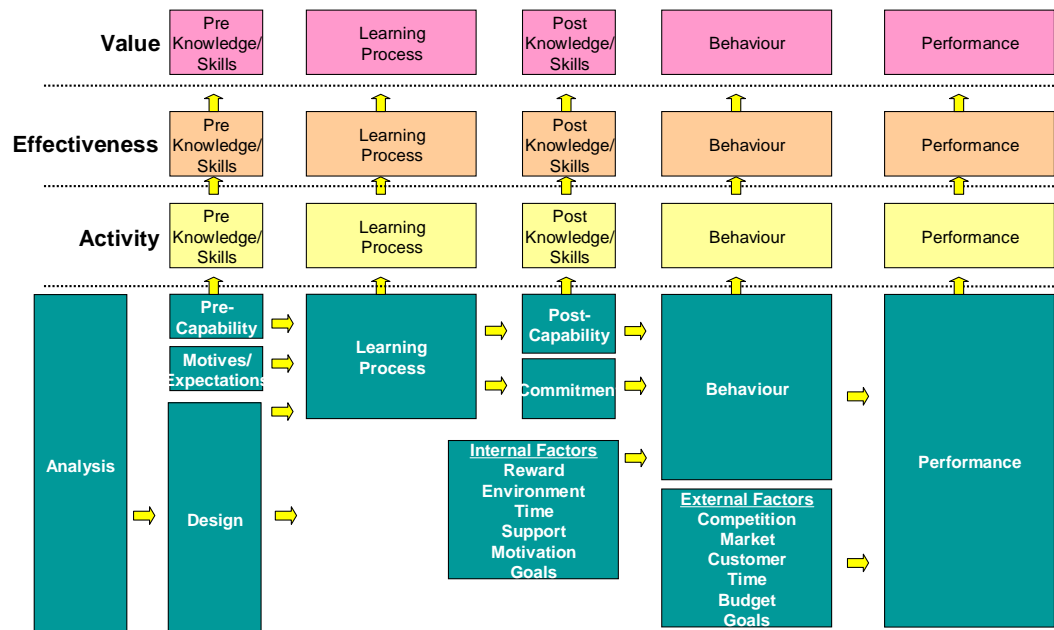
Learning Evaluation Framework

From our research, it seems evident that one of the principle weaknesses of the current models is their confusion between what we are measuring and when we are measuring. The assumption of simple linear causal relationships between feedback on the learning process, what is learnt, what is applied and what the

impact of it is, is clearly flawed. There are many factors, other than learning, impacting behaviour, and many factors, other than behaviour, impacting performance. This is what creates the problem of attribution of benefit between performance and learning.

We have already criticised Kirkpatrick for ignoring the most basic of all measurements, activity, what we referred to as Level 0 in Kirkpatrick terms. Our analysis indicates activity information is often the most used as it enables comparisons between activity for the learning process, and activity for behaviour. Although not directly measuring impact, this approach can show the correlation between learning activity and changes in the workplace. Putting a value on those changes is a further step.

The following model is still under development but captures this thinking; we call it the **Learning Evaluation Framework**. The framework more explicitly allows for measurement of activity and value across the steps in the learning-performance cycle. With some additional concepts it also enables us to create approaches that can be applied to all segments of the Learning Portfolio, not just to discrete learning projects.



Learning Evaluation Framework
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There are a number of important characteristics of the Learning Evaluation Framework. Firstly, we focus on three basic levels of evaluation: activity,

effectiveness and value. Each of these levels can be applied across the whole learning-performance cycle (the process model below the lower line). We also explicitly include the influence of other factors such as learner motivation and commitment, and broader environmental issues such as reward systems or management support on resulting behaviour.

The aim of the framework is to provide a more flexible and extensive model for measuring activity, at appropriate points in the learning-performance cycle. It also associates value where it is most appropriate.

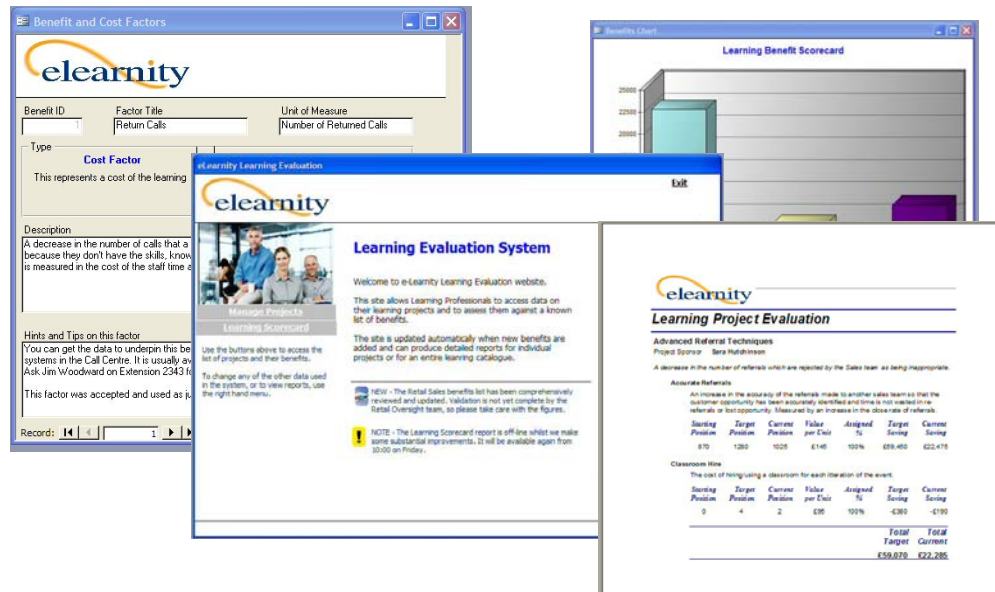
Valuing Specific Outcomes

How do we measure the value of learning and of specific outcomes? Given previous comments on the problems of learner estimation and detailed impact on measurement and attribution, we feel there is a need to develop a new approach, linking to the Learning Portfolio.

This approach focuses on outcomes (which we call **benefit factors**) that can be meaningfully measured and which have associated value for the organisation. Those factors could relate to outcomes in any part of the learning-performance cycle. In particular, they could relate to measurement of learning, behaviour or performance outcomes. We call the measurement unit for each benefit factor (or outcome to be addressed by the learning) an *Issue Unit*. We call the value of an Issue Unit, its *Exchange Rate*. Issue Units are therefore units of measure for the benefit, the Exchange rate is the value of a unit of the measure.

Learning projects and core competency development can be described at a specific level based on appropriate benefit factors and issue units. On-demand learning can be described at an aggregated level, based on over-all learning activity. All segments can be aggregated to provide an overall perspective of the value learning, what we call **Learning Value Management**. As well as developing the model and process to achieve this, we have also started to look at how to capture and report this value information using a prototype management tool.

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Prototype Learning Value Management Tool

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The management tool is designed to capture benefit and cost factor information for multiple learning projects, and then to report value information on a project basis or on an aggregate basis. An important characteristic of the tool will be its ability to be deployed for use by training staff working on learning projects for them to use to describe and capture learning value information, supported by templated benefit factors and Exchange Rates which are agreed centrally.

The success of any approach is dependent on the ability of the practitioners to apply it as well as the quality of the method or tools. This is a key issue for measuring learning value where the skills of the trainers applying the approach are not typically those of business consultants who are used to these kinds of business discussions. The more the process can be structured (or templated into the tool), the easier it will be to apply the approach systematically and correctly. This is critical to ensure a better and more constructive relationship with the business as well as better quality learning value information output.

Incidentally, it is also evident from our research that capturing and describing learning benefit information is inherently a *many-to-many problem* rather than a list-based problem. This makes it much more suitable to capture and describe learning benefits using a database approach rather than a spreadsheet approach, even though most current learning ROI tools tend to be spreadsheet-based. Maybe this explains their lack of consistent application?

The Learning Scorecard?

At the start of the research project, we used the working title “Learning Scorecard”. What is the scorecard? Well, we believe this might be the outputs from our Learning Value Management process, reported in a simple structured form; the Learning Evaluation Framework measures by Learning Portfolio segments. This might look like something as follows:

Learning Scorecard	Core Competencies	On Demand Learning	Project-Driven Learning
Value			
Effectiveness			
Activity			

Learning Scorecard

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The value of this approach will be better assessed with further research.

In Summary

Overall, we believe the Learning Evaluation Framework, Learning Portfolio and Learning Value Management approaches and tools provide a much more practical framework for measuring the value of learning with the business. It gives greater flexibility of what can be reasonably measured, and it structures the dialogue with the business in advance about the real reasons for the learning as well as their value. With a tool to capture the resulting information and to report it back to the business. The approaches also incorporate some of the best thinking and experiences from current best practice. Most importantly they re-frame the relationship between L&D and the Business, focusing the value discussion in ways that L&D can practically measure, and that the Business can practically exploit.

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Where Next?

The findings from the research, and the new approaches, models and tools represent the first stage in the quest for a better way of measuring the value of learning. These findings have been discussed between the original collaborative group, and have now been presented in outline form at a number of learning conferences. Feedback has been very positive, both about the criticisms of current thinking and practice, and about the potential solution ideas and models.

eLearnity is continuing to develop this research further through engaging with specific organisations to validate the models and tools, and to input into further development. **We would be very interested to hear from organisations, particularly larger consumers (corporate or public sector) or providers of training, who would be interested in engaging in this process.** We would also be very interested in your feedback to the issues and ideas raised in this viewpoint paper.

Please contact davidw@elearnity.com or on +44 (0)20 7917 1870 to discuss further.

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About eLearnity

Founded in 1996, eLearnity is Europe's leading independent Learning Analyst with a track record of providing strategic advice, best practice research and expert consultancy to major organisations in the UK and Europe.

We provide expert independent advice including:

- Learning and e-learning research with in-depth best practice research, strategic market analysis, news and commentary
- Independent consultancy on strategy and best practice

All supported by a unique insight from research with many major corporations and independent market and vendor profiling. We do not sell products, provide implementation or development services and therefore have no vested interest. We focus on providing you with best advice.

Topics include: E-learning strategy, learning evaluation and ROI, blended learning, enterprise learning management systems, management development best practice, collaborative learning and learning communities.

Example customers include: B&Q, BP, BT, Cable & Wireless, Coca-Cola Enterprises Europe, HSBC, Marks & Spencer, Marsh, Pfizer, Royal Bank of Scotland and Vodafone.

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