NEW PERSPECTIVES ON 70:20:10

A GoodPractice Research Paper

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⌘ GoodPractice

Foreword

The concept of 70:20:10 has relatively quickly worked its way into the firmament of learning and development practice. From humble beginnings as a somewhat niche way of looking at how L&D supports business, 70:20:10 is now incorporated into the CIPD's professional map and regularly referenced at industry conferences.

It's not going away any time soon.

But for all its popularity, there are reasonable criticisms of 70:20:10. If the exact numbers aren't important, why are they used in the name? Do those numbers accurately reflect the vastly differing needs of novices and experts? Do the percentages marginalise the importance of formal interventions in learning complex new skills?

It was with these criticisms in mind, but still very much open to the benefits of 70:20:10, that we first published **New Perspectives on 70:20:10**, which has consistently been one of the most popular resources downloaded from our website.

Since we produced the original report in November 2014, new evidence has been published by Towards Maturity, among others, showing that organisations who adopt 70:20:10 get better results from their L&D function. Alongside that, we've improved our own understanding of 70:20:10, through conversations with clients and leading industry figures.

In this update to the original report, we have expanded the content to consider the importance of an audience's expertise in relation to a performance improvement initiative, and how their intrinsic motivation level affects the selection of the best approach. We've also significantly expanded the sections offering practical advice on getting started with 70:20:10, which should be equally valuable to anyone who has already embarked on the journey.

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October 2016

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Contents

1 What Is 70:20:10?

1.1 About the report

Updated for 2016, this report begins with an introduction to the 70:20:10 framework for learning and development. We review the research and literature that has emerged to date on 70:20:10, charting the early development of the framework and its recent rise to prominence across the L&D landscape.

The second section places 70:20:10 in context - why learning leaders are so interested in what it has to offer and the evidence to support its impact on organisational performance. This section also presents the views and opinions of leading L&D thinkers and practitioners on the benefits of 70:20:10 and some of its major criticisms.

The third section looks at 70:20:10 in practice, first by examining what a 70:20:10 strategy looks like, and then by highlighting the kinds of learning activities which support learning across the 70, the 20 and the 10 elements of the framework. It also discusses the importance of issues such as learner care and learner expertise when designing solutions using 70:20:10.

The fourth and final section offers practical suggestions for how L&D practitioners can bring the underlying principles of 70:20:10 to life for their organisation. We suggest five critical questions that L&D practitioners can ask of themselves and the wider organisation to help get started with 70:20:10.

An overview of the research methodology can be found in Appendix 7.1.

1.2 70:20:10 explained

70:20:10 has a number of different interpretations and applications. The most common view is that it describes how we learn at work. It states that:

70%
of our learning comes from **challenging assignments** and **on-the-job experiences**

20%
of our learning is developed from our **relationships with other people**, our **networks** and the **feedback we receive**

10%
of our learning comes from **formal training**, such as **courses**, **workshops** and **programmes**

At its heart, 70:20:10 asserts that people get the bulk of the skills and knowledge they need to perform effectively in their roles from on-the-job learning experiences, rather than from classroom or course-based learning.

In addition to being a **description** of how people learn, 70:20:10 is also something of a **prescription** for how L&D should seek to organise and model its learning activity, with different activities supporting learning in each category. Additionally, 70:20:10 is a **change agent** which organisations can use to review the existing spread of learning activities offered by its L&D function.

Perhaps unsurprisingly, this has led to confusion about what 70:20:10 is, and how organisations should make best use of it.

Charles Jennings illustrates 70:20:10 as follows:

70:20:10 Framework

High

Realised value

Low

70 Experiential Learning

20 Social Learning

10 Formal Learning

Point Solutions learning separate from work

Continuous development learning integrated with work
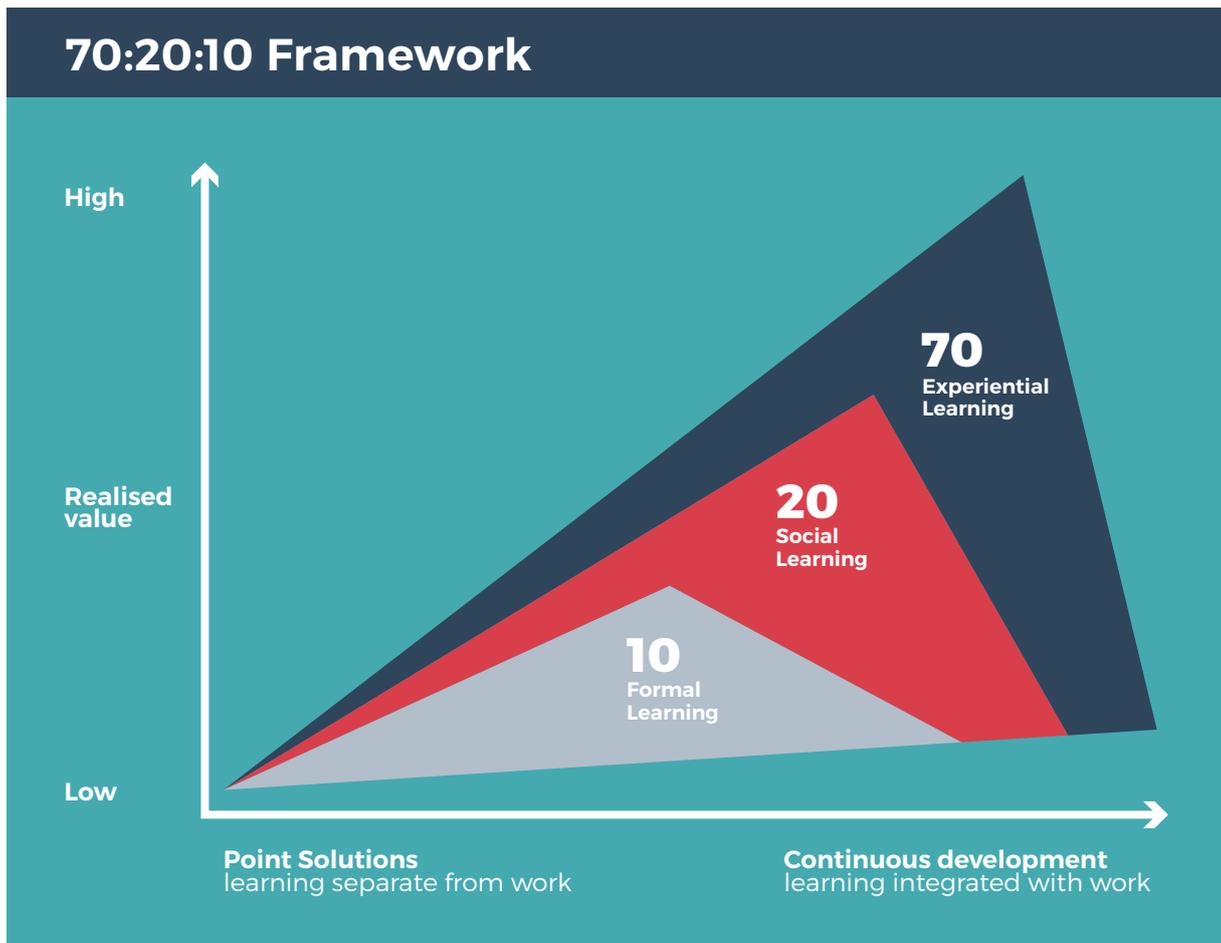
Charles Jennings, 2014

1 What Is 70:20:10?

1.3 Origins of 70:20:10 and rise to prominence

A review of the literature shows that the origins of what is now known as the 70:20:10 framework can be traced to a number of sources. An early reference was made by Professor Allen Tough in his 1968 study **Why Adults Learn**.[1] He found that most adult learning is self-directed. Although he didn't refer directly to 70:20:10, Tough's later work in the 1980s began to bring the idea together more coherently. It identified that around:

> **70% of all learning projects are planned by the learner himself.**[2]

Important parallels can be drawn with Jay Cross's widely-referenced 80:20 model of learning. This states that, on average, around 80% of work-related learning in an organisation is informal, and around 20% is formal.[3] Cross outlines a plethora of research which appears to confirm these broad ratios. He attributes the original source of the 80% informal learning figure to Peter Henschel at the Institute for Research on Learning.

As Cross explains, Henschel's work found that:

> **80% or more of corporate learning is found to be informal.**[4]

1. Tough, A. Why Adults Learn: A Study of the Major Reasons for Beginning and Continuing a Learning Project (Ontario Institute for Studies in Education, Toronto, 1968).

2. Tough, A. The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning (Toronto Institute for Studies in Education, 1971).

3. Cross, J. (2006) Informal Learning: Rediscovering the Natural Pathways That Inspire Innovation and Performance (John Wiley & Sons, 2006).

4. Jay Cross and The Internet Time Group, "Where did the 80% come from?" Available at : http://www.informl.com/where-did-the-80-come-from/ (accessed 25 October 2014).

An international expert on informal learning, Cross led the way in questioning the strong emphasis that organisations have traditionally placed upon formal learning. He has also called for a realignment of L&D thinking in order to support informal learning activity.

The bulk of the credit for developing 70:20:10 as a formal framework is attributable to the authors Michael Lombardo and Robert Eichinger at the Center for Creative Leadership in North Carolina.

Based on the results of research they conducted with senior business executives about the factors they felt made them successful, their 1996 publication, **The Career Architect Development Planner**, set out the ways in which people learn, using the 70:20:10 format for the first time.[5]

They found that over the course of their careers, the most successful executives had gained their most valuable learning in the following ways:

70%
From tough jobs and assignments

20%
From other people (mainly their manager)

10%
From going on courses and reading

5. Eichinger, R. and Lombardo, M. The Career Architect Development Planner (Lominger Ltd, 1996).

1 What Is 70:20:10?

1.4 Building on 70:20:10

Since then, others have built upon the initial research that provided a basis for the 70:20:10 framework. The work of Charles Jennings, a leading thinker in this area, is most notable. He has helped to turn 70:20:10 from a conceptual set of numbers into a practical tool, which is relevant for today's L&D practitioners. Jennings has written and co-authored a number of key reports which have helped to bring 70:20:10 into sharp focus. In **70:20:10 Framework Explained and Effective Learning With 70:20:10**, Jennings provides a comprehensive overview of the framework. More importantly, he offers sound practical advice on how organisations can best implement 70:20:10 to deliver better learning experiences.[6]

Other notable contributors to the debate include Dan Pontefract, who presents an alternative to the 70:20:10 framework in his book **Flat Army**.[7] The book is primarily about reversing the traditional command and control style of leadership that has held sway for so long in many organisations. It aims to help leaders create a collaborative culture for their organisation, which will engage, empower and encourage all employees.

As part of the Flat Army approach, Pontefract discusses the realities of how people learn, arguing that this is different from the methodology set out by the 70:20:10 framework.

He stresses that learning is pervasive, which is:

> **The switch from a 'training is an event' fixed mindset, to 'learning is a collaborative, continuous, connected and community-based' mindset.[8]**

6. Jennings, C. 70:20:10 Framework Explained (2013). Available at: https://www.702010forum.com/about-702010-publication (accessed 20 October 2014) and Jennings, C. and Wargnier, J. Effective Learning With 70:20:10, CrossKnowledge White Paper (January 2012). Available at: http://www.crossknowledge.com/en_GB/elearning/media-center/news/702010.html (accessed 10 October 2014).

7. Pontefract, D. Flat Army: Creating a Connected and Engaged Organization (Wiley Sons, 2013).

8. Ibid.

Pontefract's 3:33 model of pervasive learning presents an alternative perspective on the reality of how we learn and how leadership is formed. It suggests that:

33%

of learning happens by **formal** means (e.g.in a physical or virtual classroom, at conferences and roadshows and via e-learning)

33%

is **informal** (e.g. via mentoring, coaching, webinars, reading books and case studies, listening to podcasts and role shadowing)

33%

is **social** (e.g. via user-generated content, wikis, blogs, videos, discussions, comments, ratings and instant messaging tools etc.)

wikis

discussions

ratings · blogs · videos

user-generated content

SOCIAL

PERVASIVE LEARNING

coaching
podcasts
role shadowing
mentoring · webinars
reading books · case studies

e-learning
physical classroom
virtual classrooom
roadshows · conferences

INFORMAL

FORMAL
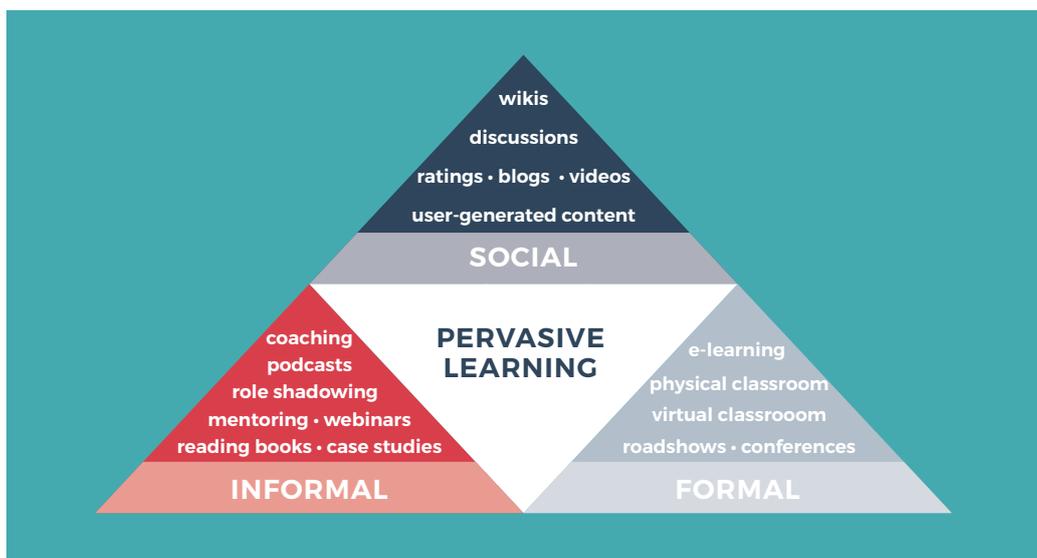
Dan Pontefract, 2013

2 70:20:10 in context

2.1 Why learning leaders are interested in 70:20:10

It is fair to say that 70:20:10 has captured the attention of the L&D world, both in the UK and internationally, in a big way. Since the publication of Jay Cross's **Informal Learning**, the L&D industry as a whole has been abuzz with change.[9]

The book describes workplace learning as something that happens naturally, as people find out how best to do their jobs by working through day-to-day-challenges. People learn informally by trial and error, from talking to their colleagues, engaging with a subject-specific forum or phoning a help desk. In short, informal learning has a major impact on a person's ability to do their job by providing answers when and where they are needed.

The more recent interest in 70:20:10 can be considered as an extension of Cross's view of informal learning. The 70:20:10 framework is seen by many commentators as a way for the L&D function to achieve transformational change and move away from its historically strong focus on formal learning activities.

For this research, we felt it was important to ask our interviewees to comment on why they felt 70:20:10 had picked up such a high level of interest from those responsible for delivering organisational learning. As Nigel Paine comments:

> **70:20:10 puts a framework on something that is blindingly obvious, which is that a learning event isn't the whole story about learning. We're talking about three areas that comprise the learning experience, and that's why people are interested.[10]**

Charles Jennings points to the simplicity of 70:20:10 itself as a catalyst for change across the whole L&D function:

> **L&D people (and other people outside the learning function) see it as a really simple way to change. It's actually a change agent. It's really simple to get the message across to people that it's about expanding learning, extending learning beyond classes. It's accepting that learning is a process, and not a series of events.[11]**

9. Cross, J. Informal Learning: Rediscovering the Natural Pathways that Inspire Innovation and Performance (John Wiley & Sons, 2006).

10. GoodPractice interview with Nigel Paine, conducted by Stef Scott (13 October 2014).

11. GoodPractice interview with Charles Jennings, conducted by Stef Scott (8 October 2014). Charles is a recognised international expert on 70:20:10. Former Global Head of Learning at Thomson Reuters, he has written and co-authored many reports on this topic and also founded the 70:20:10 Forum.

Harold Jarche points out that L&D's traditional role has hindered the scope of its organisational value. Viewing workplace learning through the lens of 70:20:10 can provide a solution for L&D functions that need to broaden their approach:

> **One of the problems is that L&D, in a lot of cases, has become a deliverer of products and not a co-solver of problems. 70:20:10 puts formal instruction where it belongs, which is as a very targeted and focused type of intervention. It says that even if you are building the best courses and things like that, you are still only dealing with 10%. What are you doing with the other 90%?[12]**

As mentioned above, Clive Shepherd agrees that part of the interest in 70:20:10 stems from the narrow nature of L&D's traditional training delivery role. He points out that many L&D functions have had a blinkered focus, which has primarily been about designing and delivering formal training, often from a handbook or coursebook.

He argues that this kind of L&D function cannot influence the majority of learning that is already happening across organisations; the 70% that comes from our on-the-job experiential learning, and the 20% that is derived from our experiences and relationships with other people.[13]

Harold Jarche takes this a step further, pointing out:

> **If you (meaning L&D), don't understand the business, if you're not connected to the organisation and what's happening to people, then you're not doing your job in supporting learning. It's understanding the 70:20 of 70:20:10. That's 90% of workplace learning. If you're not involved in that, then you're pretty well irrelevant.[14]**

12. GoodPractice interview with Harold Jarche, conducted by Stef Scott (17 October 2014). Harold is current chairman of the Internet Time Alliance and an independent L&D consultant based in Canada. Find out more at: http://jarche.com/.

13. GoodPractice interview with Clive Shepherd, conducted by Stef Scott (20 October 2014). Clive is an expert in the field of workplace learning and author of The New Learning Architect. Find out more at: http://clive-shepherd.blogspot.co.uk/.

14. GoodPractice interview with Harold Jarche, conducted by Stef Scott (17 October 2014).

2 70:20:10 in context

2.2 Impact on organisational performance

In 2016, Towards Maturity and Charles Jennings co-authored **70+20+10=100: The Evidence Behind the Numbers**.[15] As well as presenting data to suggest that organisations using 70:20:10 are likely to be more successful, the report aimed to dispel many of the myths and misconceptions around the application and success of 70:20:10.

Using data from more than 600 L&D leaders who completed the Towards Maturity 2015 Benchmark survey, this report found that 47% of L&D leaders use an approach which is "shaped by models that support learning directly in the flow of work - such as 70:10:10". This rises to 86% for so-called 'Top Deck' organisations - the top 10% of the Towards Maturity Index.

Using 70:20:10 is linked to improved organisational performance, as organisations with a 70:20:10 approach in place report they are:

In general, organisations using an approach informed by 70:20:10 report a greater impact on the overall business and employees, more benefits from technology-enabled learning and fewer barriers to a modernised learning strategy. However, to what extent is the positive impact on organisational performance caused by the adoption of 70:20:10?

One possible explanation for the results is that 70:20:10 is more likely to be adopted by progressive, forward thinking organisations who keep abreast of the latest thinking in L&D. It is reasonable to question whether these improvements in performance would have occurred in these organisations anyway, whether 70:20:10 had been adopted or not. However, the evidence presented in **70+20+10=100: The Evidence Behind the Numbers** is a first step in establishing a link between the 70:20:10 framework and improved performance.

4x
as likely to report that they are responding faster to business change

3x
more likely to report an improvement in staff motivation

2x
more likely to report a customer satisfaction increase

15. Jennings, C., Overton, L. and Dixon, G. 'In Focus: 70+20+10=100: The Evidence Behind the Numbers', Towards Maturity White Paper (February 2016). Available at: www.towardsmaturity.org/article/2016/02/02/in-focus-702010-100-evidence-behind-numbers/ (accessed 10 August 2016).

2.3 Uptake of informal learning

Another recent contribution to the debate on 70:20:10 and the impact of informal learning in the workplace comes from the Dutch Central Planning Bureau's longitudinal report **Supply of Labour 2016**.[16] Based on a large sample of 4,500 respondents, this research presents some interesting results regarding the uptake of informal learning across different groups of employees:

— Employees with less education and formal training (e.g. courses and workshops) do not compensate for this with more informal learning.

— Employees who receive lots of formal training throughout their careers are also those who learn a lot via informal methods in the course of their daily work.

— Low-skilled employees, older workers and those on flexible working contracts report that they receive little in the way of training, either formal or informal.

These findings certainly add credence to the argument that the 70:20:10 ratios are irrelevant, and that the model should not be adopted as panacea for how we all learn. It also suggests that formal and informal learning are not necessarily independent of each other – indeed there is a marginalised sub-set of employees who remain untouched by both formal and informal learning. As Ger Driesen, CEO of the Challenge Leadership Development Academy comments:

> **Some L&D practitioners can view 70:20:10 as only the 'icing' of their L&D activities – when it reality it should go much deeper than that. To get the best from 70:20:10, it needs to be tailored to each situation and the unique performance gap that exists.**
>
> **The process should start with a good analysis of why the performance levels of each specific group of people are not being met in the current situation – this might be caused by their work processes, the work environment or a lack of capability.**
>
> **Doing this reveals specific 'clues' about the right mix of interventions (some of which might be learning solutions) that can best meet those needs and challenges – this will be different every time.[17]**

This new research also highlights the critical significance of the relationship between formal and informal learning. The importance of formal learning within the overall learning mix often suffers in discussions about 70:20:10 – the focus can often lean too heavily towards the '70' – informal learning.

However, exposure to and uptake of formal learning can be a powerful catalyst for the development of a positive attitude and motivation to continue learning by informal means. Formal learning experiences can be highly formative for many people, broadening their horizons and kick-starting a lifelong affinity for informal learning.

16. The Netherlands Institute for Social Research, 'Supply of Labour in 2016: Working, caring and learning in a flexible labour market', (30 August 2016). Available at: www.scp.nl/english/Publications/Summaries_by_year/Summaries_2016/Supply_of_labour_2016 (accessed 23 September 2016).

17. GoodPractice interview with Ger Driesen, conducted by Stef Scott (26 September 2016).

2 70:20:10 in context
2.4 Benefits of 70:20:10

In recent years, 70:20:10 has moved from the fringes of the L&D landscape to rapidly take hold as a mainstream idea. For many, the most important benefit to be gained from 70:20:10 is that it encourages L&D practitioners to shift their mindset on how to approach the delivery of learning in their organisation.

70:20:10 offers a framework that enables L&D practitioners to critically assess their existing practice of learning delivery. It asks them to consider whether they are addressing and appropriately supporting all areas where people engage in learning. Based on the 70:20:10 rationale, L&D must use evidence to inform and adapt its approach.

The majority of our interviewees were in agreement that 70:20:10 could offer organisations and their L&D functions a way of improving what they deliver for their stakeholders. Not only does it provide a strong impetus for change, it also offers a mechanism through which current L&D practice can be examined and assessed. As Charles Jennings points out, 70:20:10 helps both learning functions and organisations become much more intentional about how they build high performance:

> **It gives them a structure in which they can focus on building a culture of continuous development and high performance.**[18]

We've seen that 70:20:10 can be used as a prism through which L&D can examine and assess its current spread of learning interventions and activities. It is important to recognise that 70:20:10 is not about ignoring the 70 and 20 areas 'because they are happening anyway', but to instead think about how best to support and cultivate these learning activities.

It prompts identification of gaps in learning provision, helping L&D to prioritise the development and implementation of learning initiatives to support the different areas of the 70:20:10 framework. It does not mean that L&D should allocate 70% of its time to developing ways of boosting on-the-job experiential learning, 20% to developing networks of experts and communities of practice and 10% to course development, but rather that each of these areas should be reviewed and supported in a way which takes account of learners' needs and requirements.

18. GoodPractice interview with Charles Jennings, conducted by Stef Scott (8 October 2014).

19. There are two individuals named Donald Clark who are key contributors and influencers across the L&D profession. Please note that the Donald Clark quoted in this report is the US-based author of the 'Big Dog Little Dog' blog, and not the UK-based Donald Clark and former CEO of Epic.

20. Donald Clark, 'Lingering Doubts About the 70:20:10 Model', Big Dog and Little Dog's Performance Juxtaposition blog. Available at: http://bdld.blogspot.co.uk/2011/11/lingering-doubts-about-702010-model.html (accessed 27 October 2014).

2.5 Criticisms of 70:20:10

Alongside all the enthusiasm and positive interest we have seen in 70:20:10, it is apparent that there are also some significant problems - the framework is not without its critics. There has been something of a backlash not only from L&D practitioners themselves, but also from a number of L&D experts and authorities.

In recent years, a number of people have identified various flaws and problems associated with 70:20:10, with varying degrees of voracity. The following sections take a look at some of the key criticisms of the framework.

Bearing these in mind, our interviewees agreed that misconceptions often arise when organisations start getting to grips with 70:20:10, which limit its overall usefulness.

2.5.1 Using the numbers as a prescription

One of the major criticisms of 70:20:10 concerns how the framework can be misinterpreted by organisations and their L&D teams. The danger is that people view the ratios as a strict 'prescription' rather than something which can be applied more fluidly and flexibly. For example, Nigel Paine notes the following anecdotal evidence about the way 70:20:10 can be misused:

> " **The worst elements are people who are determined to get the boxes full up, so they look for the 70% and they look for the 20% and they're not happy until they've managed to produce something and say, 'Well, we've now got our 70% of this, and 20% of that.' People who over-simplify it get into trouble.** "

Furthermore, Donald Clark, a key contributor to this debate, has also voiced what he calls 'lingering doubts' regarding the highly prescriptive nature of 70:20:10.[19] He strongly advises against using 70:20:10 as the basis for an organisation's learning strategy.[20] This view is echoed by Clive Shepherd, who says that caution should be exercised when it comes to estimating the scope and relevance of 70:20:10. He argues that if 70:20:10 has any practical use, it is not as a prescription for future projects but as a way of reflecting back on a period of career development and thinking about what we have learned and how we learned it.[21]

In relation to this point, the Australian researchers who worked on the **Demystifying 70:20:10** research report found that while the original three areas outlined in the framework were valid, organisations that tried to apply them in a strict way had considerably less success than those that chose a more flexible approach and used 70:20:10 as a broad guideline.[22]

In our interview, Nigel Paine talked about that fact that 70:20:10 has become something of an L&D mantra that is often quoted by practitioners without an understanding of the fact that their practice needs to change. He reflected that:

> " **Some L&D people go around saying, 'Oh yes, we're doing 70:20:10' without actually getting at changing the learning itself.**[23] "

21. GoodPractice interview with Clive Shepherd, conducted by Stef Scott (20 October 2014).

22. Kajewski, K. and Madsen, V. Demystifying 70:20:10 White Paper, DeakinPrime (Deakin University, 2012).

23. GoodPractice interview with Nigel Paine, conducted by Stef Scott (8 October 2014). Former Head of People Development at the BBC, Nigel is a well known learning and development writer, speaker and consultant. He is author of The Learning Challenge. Find out more at: www.nigelpaine.com/.

2 70:20:10 in context

2.5 Criticisms of 70:20:10

2.5.2 Lack of empirical evidence

Another criticism often levelled at 70:20:10 is the perception that there is an apparent lack of available evidence to confirm the validity of the concept. Critics maintain that 70:20:10 was only developed as a theoretical hypothesis, which hasn't been rigorously tested and proved by empirical evidence. For example, commentators such as Ben Betts and

Nick Howe argue that there is a distinct lack of peer reviewed literature available to corroborate the underlying basis of 70:20:10.[24] Writing in the **Oxford Handbook of Leadership and Organisations**, researchers from the University of Michigan asserted that:

> **There is actually no empirical evidence supporting this assumption, yet scholars and practitioners frequently quote it as if it is fact.[25]**

Furthermore, the results of the aforementioned study by researchers from Deakin University into the origins of 70:20:10 appear to corroborate the view that there is:

> **A lack of empirical data supporting 70:20:10 as well as a lack of concrete certainty about the origin.[26]**

Despite these misgivings, the majority of interviewees who participated in this research felt that a firm research base confirming the validity of the 70:20:10 concept does exist. Some of the interviewees felt that this discussion and debate about the supposed origins of 70:20:10 and the credibility of the research on which it is based actually miss the point about why it is so important. As Nigel Paine explains:

> **There's been a whole bunch of arguments about 70:20:10: it's not proven, validated research, and that it's composed of ridiculously round figures and all that nonsense. We're not talking about scientifically proven ratios … it's the broad concept of learning that is important.[27]**

24. Ibid, and Nick Howe, 'Let's kill a few learning holy cows – 70:20:10 is dead (or at least seriously ill)' (9 May 2010). Available at: www.nickjhowe.com/2010/05/lets-kill-a-few-learning-holy-cows/ (accessed 27 October 2014).

25. D. Scott DeRue and Christopher G. Meyers, 'Leadership Development: A Review and Agenda for Future Research'. In D. V. Day (ed.) Oxford Handbook of Leadership and Organizations (Oxford: Oxford University Press, 2012).

26. Kajewski, K. and Madsen, V. Demystifying 70:20:10 White Paper, DeakinPrime (Deakin University, 2012).

27. GoodPractice interview with Nigel Paine, conducted by Stef Scott (8 October 2014).

2.5.3 Dangers of extrapolation

Critics have also drawn attention to what they regard as apparent weaknesses with the purported original source of 70:20:10: The Center for Creative Leadership's 1996 study.[28] The original research sample was comprised of a relatively small number of senior managers. They were asked to look back over their careers and determine where they felt their most meaningful development came from.

The results gave us the 70:20:10 framework as we know it today. However, critics point out the dangers of simply extrapolating the results of this study and using them as a panacea for how everyone in the workplace (not just senior executives) learns.[29]

Building on this issue, Donald Clark warns that because 70:20:10 was primarily intended as a prescriptive remedy for developing managers to senior and executive positions, it shouldn't be regarded as a useful model for developing skills in the daily learning and workflow of everyone in an organisation. He warns that this is using the framework in a completely different context than it was originally designed for.[30]

The dangers of not applying a situational context to 70:20:10 are also echoed by Clive Shepherd, who says:

> **[70:20:10 is] not situational. It is important to recognise that, in reality, the ratio of informal to formal learning varies with the context in which learning is taking place.[31]**

28. Eichinger, R. and Lombardo, M. The Career Architect Development Planner (Lominger Ltd, 1996).

29. Lorri Freifeld, 'Fear not the 70:20:10', Training Mag (14 September 2012). Available at: www.trainingmag.com/content/fear-not-70-20-10 (accessed 29 October 2014).

30. Donald Clark, '70:20:10 Versus the 3-33 Pervasive Learning Model', Big Dog and Little Dog's Performance Juxtaposition blog. Available at: www.nwlink.com/~donclark/hrd/media/70-20-10.html (accessed 29 October 2014).

31. GoodPractice interview with Clive Shepherd, conducted by Stef Scott (20 October 2014)

3 70:20:10 in practice

3.1 What does a 70:20:10 strategy look like?

For all that has been written about 70:20:10, what isn't clear is how learning functions should actually go about transforming the range of learning activities across their organisation to fit with the ethos of 70:20:10. For example, what does a good 70:20:10 strategy look like in practice, and how can organisations get there from where they are now?

This lack of clarity can be partly explained by the existence of two distinct perspectives about how 70:20:10 can be applied:

1. TO ASSESS L&D'S BIGGER PICTURE:

70:20:10 can be used at a macro level across the whole organisation to identify where L&D is focusing its efforts, and whether the balance of activities is appropriate. For example, is everyone in L&D spending their time designing and delivering courses (the 10), or are efforts being directed at supporting informal and social learning initiatives such as communities of practice and peer networks (the 70/20)? A 70:20:10 approach advocates that more time and effort is spent on 70 and 20 activities than has been in the past.

2. TO DESIGN SPECIFIC LEARNING INTERVENTIONS:

70:20:10 can also be applied at a micro level when L&D is tasked with supporting the achievement of a particular performance issue, e.g. "We need to improve how we cross-sell our products and services." It serves as a tool to help L&D consider whether the balance of learning activities for each intervention is appropriate for the specific performance challenge and the learners themselves.

The fact that 70:20:10 can be usefully applied across both macro and micro organisational perspectives can be a source of confusion for L&D. Importantly, in neither context is a precise ratio of 70:20:10 the end goal.

Instead, L&D professionals should consider the optimal balance of activities, which have traditionally been skewed towards formal learning.

3.2 What do 70:20:10 activities look like?

How people learn in organisations can be described broadly as follows:

1. Experience

Experience (the 70): learning gained on-the-job by completing daily tasks, solving challenges and practice.

2. Exposure

Exposure (the 20): learning with and through other people from informal coaching, social learning and collaboration.

3. Education

Education (the 10): learning by attending structured courses, workshops and programmes.

3 70:20:10 in practice

3.2 What do 70:20:10 activities look like?

When it comes to their learning and development, most employees have a broad range of activities to choose from. To help make sense of what 70:20:10 looks like in practice, it is useful to look at each area and consider the activities that can support learning in each component.

Not only does this act as a checklist against which L&D practitioners can review their current approach, it can also ensure that opportunities for learning are considered across each category: [32]

70	20	10
Problem-solving	Peer coaching	Courses and workshops
Challenging tasks	Giving and receiving feedback	E-learning modules
Deliberate reflection	Action learning	Problem-solving
Stretch assignments	Mentoring	Seminars
Resources	Communities of practice	Virtual classrooms

This list is by no means exhaustive, and gives a flavour of where L&D departments can align their activities. As an example, we know that providing effective performance support resources is an effective way L&D can support on-the-job learning (the 70).

Performance support refers to resources that employees use to work through tasks and solve problems more effectively.

The resources themselves vary, and can be anything from online guides and PDF checklists through to videos and mobile apps.

Consider where your employees turn first when they need to remember something and apply it, check their approach or when they face a new problem. We know from our previous research that when it comes to effective performance support, employees want to access the resources easily and find an answer fast.[33]

32. 'Practical examples of the 70, 20 and 10', The 70:20:10 Forum. Available at: www.702010forum.com/Posts/view/article-practical-examples-of-the-70-20-10 (accessed 18 August 2016).

33. Owen Ferguson and Justin Anderson, 'The Secret Learning Life of UK Manager's, GoodPractice Research Report (November 2015). Available at: www.goodpractice.com/ld-resources/the-secret-learning-life-of-uk-managers/.

3.3 Considering learner expertise

When using 70:20:10 at a micro level to design individual learning interventions, taking account of learner needs seems a straightforward consideration. Our **Inside the Heads of UK Managers** research highlighted considerable differences in the things managers found most challenging when the data was broken down by gender, manager seniority and the size of organisation in which managers work.

A manager's seniority and consequent level of expertise has an impact on the areas they find most challenging.[34]

The following categories are a good way to consider learner expertise:[35]

Novice

Someone who is completely new to something, and has very little or no previous experience or expertise to draw upon. Novice learners rely on facts and key features of a subject to guide their behaviour. Their performance is limited and inflexible.

Experienced

Experienced learners are confident about a subject or particular domain of knowledge. They have built up a degree of previous expertise that they can draw upon. They have a self-directed approach to their learning and their performance is more flexible and reflective.

Expert

An expert knows a great deal about a subject, and can focus on the critical aspects of a situation rather than the peripheral, less significant attributes. They are highly skilled and knowledgeable, and their performance is intuitive and automatic.[36]

34. Owen Ferguson and Stef Scott, 'Inside the Heads of UK Managers', GoodPractice Research Report (May 2016). Available at: www.goodpractice.com/ld-resources/inside-the-heads-of-uk-managers/.

35. 'Four Differences Between Experts and Novices', Cognitive Performance Group blog (23 July 2014). Available at: http://cognitiveperformancegroup.com/2013/07/24/4-differences-experts-novices/ (accessed 11 August 2016).

36. Ertmer, P. and Newby, J. T. 'The expert learner, strategic, self-regulated and reflective'. Instructional Science 24: 1-24 (1996). Available at: www.hsu.edu/TLC/images/The%20Expert%20Learner,%20Strategic,%20self%20regulated,%20and%20reflective.pdf (accessed 11 August 2016).

3 70:20:10 in practice

3.3 Considering learner expertise

Given this spectrum of difference, not everyone requires the same level of support. Take underperformance as an example. Novice, inexperienced managers will require a different kind of support to successfully address underperformance in their team. New managers would benefit from more structured support to understand the performance process, work closely with HR to role-play different outcomes, as well as using a template or script for the performance meeting itself.

The needs of managers with extensive experience of managing underperformance are quite different. Faced with the same challenge, they are likely to want to check their approach by quickly accessing an online guide, where they can find the answer they need.

Novices need more support and guidance as well as the opportunity to practice and learn in a safe environment. Experts don't need this level of support, as they want a straightforward way to check their approach or find an answer to a specific question. Thinking about how levels of expertise vary across a whole population of employees and taking account of this in the design of subsequent learning interventions will result in far more targeted, useful solutions.

Research also shows that where employees have less formal education (less well educated groups, often working in low-skilled positions) they do not tend to compensate for this by learning more through informal means.[37] L&D needs to be mindful of these differences when designing learning that's truly effective.

A person's background and their level of prior exposure to learning (both formal and informal) will undoubtedly have an impact on how they will respond to different learning interventions. L&D needs to consider how best to make their learning interventions appeal to people with little previous exposure. This also has implications regarding learner care, which is discussed in the next section.

37. The Netherlands Institute for Social Research, 'Supply of Labour in 2016: Working, caring and learning in a flexible labour market', (30 August 2016). Available at: www.spc.nl/english/Publications/Summaries_by_year/Summaries_2016/Supply_of_labour_2016 (accessed 23 September 2016).

3.4 Degree of learner care

Another important area for L&D to consider, but which can be forgotten about, is 'learner care.' As Nick Shackleton-Jones explains, this is the degree to which people are motivated to learn and to extend their learning. He explains:

> **In overlooking [learner] care in our formal learning interventions, we frequently make two big mistakes: we disseminate information without giving people a reason to care, and we fail to provide learning resources to people who do care, who have an appetite for learning but are nevertheless starved of information.[38]**

If an employee isn't motivated to care about a particular organisational initiative, then they are not particularly driven to change their behaviour as a result. However, if people have a high level of intrinsic care about learning something (for example where they are keen to solve a problem or want to improve specific skills), then the learning media, and its delivery, can be fairly simple.

The impact of learner care can be illustrated by large-scale organisational change initiatives. Many don't resonate with front line employees - they simply don't care enough about the issue at hand to change their behaviour. For example, say an organisation decides it wants employees to embody a new set of behaviours or organisational values. Unless these have a direct impact on employees' day-to-day jobs, they are unlikely to care too much about changing their behaviour without something to spark a reason to care.

At this end of the spectrum, where there is a low degree of care, learning interventions need to be much more immersive. They need to give employees a reason to care - whether that's by engaging them with stories, providing a rich, real-life scenario or highlighting a compelling reason for why behaviour needs to change that resonates with the employees emotionally.

38. Nick Shackleton-Jones, 'Learning as Care', Aconventional blog (25 September 2011). Available at: www.aconventional. com/2011/09/learning-as-care.html (accessed 11 August 2016).

4 Guidance for using 70:20:10

4.1 The theory versus the practice of 70:20:10

It's clear that 70:20:10 is based on theory, rather than something that has emerged from L&D practice itself. Because of this, L&D practitioners can sometimes find it a challenge to identify effective ways of putting 70:20:10 to work in their organisation.

While there are tools available to help L&D put the framework to practical use, further examples and case studies showing how 70:20:10 can be brought to life are needed. This section provides an insight into how the principles of 70:20:10 can be implemented, using examples drawn from the research interviews and existing case studies.

We know that the 70 element of 70:20:10 (informal on-the-job learning) is already taking place within organisations, as is the 20 element, which comes from interacting with and learning from other people. The questions for L&D are how to make this learning easier for people, and how best to support and leverage it wherever possible. Practical suggestions on how to do this include:

4.1.1 Changing mindsets about learning

One of the most important areas for L&D to consider when first looking at 70:20:10 is how people in their organisation currently think about the learning process, and what it means to them. Charles Jennings talks about the importance of 'developmental mindsets' in order to embrace the philosophy of continuous, self-directed learning that underpins 70:20:10.[39]

Based on Carol Dweck's mindset theory, individuals with developmental mindsets are far more open to learning, seeing it as an essential aspect of their development that needs daily work.[40] The question for L&D is how can it help people move from a fixed mindset to a developmental mindset. Multinational food production company Danone has addressed this challenge with its 'One Learning a Day' culture. It aims is to encourage the development of:

> **A fresh mindset, so that every part of an employee's professional life, not just training sessions, becomes useful for increasing their skills and helping them grow.**[41]

This approach is about learning through action, where a person's daily work activities are regarded as opportunities for learning and growth. It has helped Danone move away from a culture where development is merely viewed as a series of events, with people attending a variety of training courses that are far removed from the reality of their day-to-day challenges and responsibilities.

39. Charles Jennings, 'Development Mindsets at 70:20:10', Workplace Performance blog (7 October 2014). Available at: http://charles-jennings.blogspot.co.uk/2014/10/development-mindsets-and-702010.html (accessed 31 October 2014).

40. Carol Dweck, Mindset: The New Psychology of Success (Random House Publishing Group, 2007).

41. Danone – Your Development. Available at: http://www.danone.com/en/for-you/candidates/growing-in-danone/your-development/ (accessed 31 October 2014).

4.1.2 Opening up the lines of communication

The 20 aspect of 70:20:10 is about how people derive knowledge and learning from others, whether that's simply talking to their colleagues about the best way to approach problems and challenges, or by utilising informal networks of contacts to help them do their jobs. If people are using informal networks within their department, team, or across the wider organisation to get information, L&D can focus on harnessing the potential of this learning channel. Rather than leaving the development of these networks to chance, L&D can nurture and streamline this process to maximise the value it adds to learning.

As an example, L&D can provide targeted assistance by setting up a 'contacts book' of internal (and external) subject matter experts on a range of areas, who are willing to share their expertise with others. It is important to make these individuals easy to access, whether this is online or face-to-face. With L&D's support, people can tap into the best possible tacit knowledge available in their organisation, rather than relying on asking their immediate colleagues (who may not be the most knowledgeable).

If a group of managers are working on new projects for the first time, for example, can they be given access to more experienced project managers? Similarly, employees stepping into people management for the first time will benefit from access to more experienced team managers, as well as their peer group outside of their own department or business function. Andrew Jacobs, an experienced L&D practitioner, recommends going one step further - asking subject matter experts to get directly involved in designing and delivering learning content.[42]

42. Andrew Jacobs, '50 big ideas to change L&D', Lost and Desperate blog (14 March 2014). Available at: http://lostanddesperate.com/2014/03/14/50-big-ideas-to-change-l-and-d/ (accessed 3 November 2014).

4 Guidance for using 70:20:10

4.1.3 Developing communities of practice

Communities of practice are groups of people who share a concern or a passion for something they do, and learn how to do it better as they regularly interact.[43] Members of a community of practice work together to develop and share knowledge of their area of interest. Examples include a group of first-time managers helping each other cope with the new demands of their role, or a group of software engineers working to solve complex coding problems. As James McLuckie, Learning and Performance Solutions Director at GoodPractice, comments, in a community of practice:

L&D can play a pivotal role in helping communities of practice find their feet, get off to a good start and keep up the momentum. Although communities of practice can and do develop organically, support from L&D can make them much more efficient, prevent duplication of effort and prevent exclusive cliques from forming. L&D can also use communities of practice as a basis for capturing and managing the wealth of tacit knowledge that exists in organisations.

> **Learning is situated within authentic activities, context and culture, and is often facilitated through the sharing of practical experience and field-based storytelling. Members of a community of practice may not explicitly frame their activities as 'learning', but as networking or information and knowledge sharing.**[44]

43. Beverly and Etienne Wenger-Trayner, 'Intro to Communities of Practice'. Available at: http://wenger-trayner.com/theory/ (accessed 31 October 2014).

44. McLuckie, J. 'Social Media and Open Spaces for Community Formation: Implications for Learning and Practice'. Dissertation submitted for the M.Sc. in E-learning, University of Edinburgh (2011).

4.1.4 Provide high quality, on-demand resources

Research shows that when people need help with something in the course of their daily work, in addition to asking their colleagues or manager about it, they often turn to internet search engines.[45] It is likely that they will spend time and effort looking through a wide range of internet search results trying to access the information they need.

From an L&D perspective, if you know that people are looking online for information, it makes sense to simplify the process as much possible. Providing well-designed online tools is a positive step that L&D can take to ensure that people have access to credible, trustworthy online sources to fill knowledge gaps when they need to. Andrew Jacobs argues that L&D should make these resources, and indeed all learning resources, completely open and available to everybody in the organisation in order to maximise their impact.[46]

45. Ferguson, O. and Casebow, P. 'How Managers Learn (In Their Own Words): A Survey of Managers' Learning Activities and Their Effectiveness.' GoodPractice White Paper (January 2010).

46. Andrew Jacobs, '50 big ideas to change L&D', Lost and Desperate blog (14 March 2014). Available at: http://lostanddesperate.com/2014/03/14/50-big-ideas-to-change-l-and-d/ (accessed 3 November 2014).

4 Guidance for using 70:20:10

4.2 Getting started with 70:20:10 - five key questions to ask

For some organisations, the adoption and integration of 70:20:10 into the very fabric of their L&D approach is a daunting prospect. It can be difficult to know where to start and what to do.

In this section, we highlight five key questions that L&D practitioners can ask of themselves and the wider organisation. These questions should help them get to grips with applying 70:20:10 in a practical way.

4.2.1 How are people learning in your organisation?

Before trying to introduce 70:20:10, the first step is to understand the dynamics of learning that is already happening in your organisation and, critically, how effective it is in supporting and improving performance.

What sorts of activities are your employees engaging in to help them do their jobs more effectively? Equally, what learning activities are they engaging in that aren't so valuable? Informal learning is already taking place, so conducting an 'L&D audit' can help identify pockets of successful informal and social learning such as fledgling communities of practice which would benefit from some support and guidance.

Gathering robust data and insight about the current state of play, and identifying what's working and what isn't across the spectrum of L&D activity, can help you challenge preconceived ideas (your own and others') about what people in your organisation really need to improve their performance. Doing this groundwork will help you build a strong business case for 70:20:10 that is aligned to what your employees actually need and find useful.

What to do

— Talk to your managers. Interview a cross-section of employees and managers face-to-face with the aim of identifying their real, genuine needs. Don't ask them what courses they think they need. Instead, find out what they find challenging about their role and get some specific examples if possible.

— Run an online survey. To add to the data you get from the interviews, an online survey is a good way of getting additional insight. Keep the emphasis on uncovering the difficult, challenging aspects of a manager's role.

— Find out where managers get support. Spend some time identifying what employees do when they are faced with a challenge at work.

— Review analytics and search terms on your LMS/intranet. Search term analysis of the things that people look for most across your LMS or intranet can give you a powerful insight into where more, or better, support might be needed. It can also corroborate results from previous interviews and surveys.

4.2.2 Will your organisation's most senior people get behind 70:20:10?

Like any new idea or initiative, an organisation's top management must believe in and demonstrate positive support for 70:20:10 in order for it to succeed. Charles Jennings underlines the critical importance of senior leadership support to the success of 70:20:10.[47]

He points out that senior leaders have a fundamental responsibility to provide highly visible sponsorship and support for the objectives of 70:20:10, to help learning become something which goes well beyond the provision of formal courses.

What to do

— Map out who your key stakeholders are at the start of the process and develop strategies for gaining the commitment and resources you need.

— Use the insight gathered from your L&D audit and employee feedback to build a business case for implementing 70:20:10 which highlights the most successful areas of L&D provision and those which would benefit from more attention and support.

— Talk to your senior stakeholders about the benefits of implementing 70:20:10 using clear, simple language (rather than L&D jargon) and linking it to key organisational challenges.

— Don't make it about reducing cost. The strategic aim of 70:20:10 is to improve organisational performance by supporting informal learning, development coaching and other forms of support in the workplace through managers, peers, colleagues, experts, social platforms and online support.

47. Charles Jennings, '70:20:10 From Strategy to Action', 70:20:10 Forum. Available at: www.702010forum.com/files/702010_Strategy_to_Action.pdf (accessed 31 October 2014).

4 Guidance for using 70:20:10

4.2 Getting started with 70:20:10 - five key questions to ask

4.2.3 Does L&D have the skills to promote all aspects of 70:20:10?

For many organisations, introducing 70:20:10 means that people will need to work in new ways. This realisation will push many L&D people beyond their existing spheres of expertise and out of their comfort zones. Although many L&D practitioners are forward thinking and open to change, some may encounter resistance from colleagues who remain unconvinced by 70:20:10, or view it as a threat. As Harold Jarche has pointed out, some L&D practitioners can see 70:20:10 as a threat to their role, particularly where they are heavily involved in the design and delivery of courses.[48]

It is likely that many L&D teams will need to review their existing skill sets, and determine how to embrace the non-formal elements of the 70:20:10 framework. Most L&D functions are highly skilled in developing and delivering traditional training, but when it comes to supporting informal and social learning, there may be a lack of experience in the team.

As well as mastering these new skills, L&D practitioners may also need to broaden their horizons regarding the technologies and tools that can support 70:20:10. As Sukh Pabial points out:

> **There are too many L&Ders who have their head in the sand about digital and its capabilities that they're just not providing the right kind of support to the people they're trying to support. I'm not saying that L&Ders need to know every one type of digital solution that's out there, but we do have to better consider the inclusion of a range of learning options when it comes to learning solutions.**[49]

What to do

— Try out and get familiar with different forms of technology - build your confidence with areas such as gamification, mobile learning, webinars and virtual classrooms so you can understand and leverage their potential to enhance your organisation's learning landscape.

— Develop your content curation skills so you are able to use the best of what your organisation has already, so you don't need to reinvent the wheel every time.

— Spend time building your own Personal Learning Network (PLN) so that you keep up with key developments and the evolution of leading thinking and practice.

— Boosting your social and collaborative learning skills will help you understand how employees in your organisation get support whilst they are working.

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48. GoodPractice interview with Harold Jarche, conducted by Stef Scott (17 October 2014).

49. Sukh Pabial, 'More thoughts on digital skills in L&D', Thinking About Learning blog (10 August 2016). Available at: https://pabial.wordpress.com/author/sukhpabial/ (accessed 17 August 2016).

4.2.4 Is 70:20:10 the right mix for your organisation?

As discussed, one of the key misconceptions around 70:20:10 is that the numbers are set in stone. However, we have seen that 70:20:10 is most useful as a tool for questioning how L&D practitioners think about learning - and not just the learning that takes place in formal settings. When starting out with 70:20:10 it is useful to look at the three areas of the framework - on-the-job experiential learning, learning from others and formal learning - and map out how L&D is currently supporting each one. Taking time to understand the function's current approach in all areas will be time well spent.

The 70:20:10 ratio is not a prescription for all L&D activity. It is a generalisation of the learning activity that is taking place in an organisation and, as such, should be used in a flexible way to inform and guide L&D practice.

It is essential that practitioners take account of differences in both situation and context when it comes to designing and supporting appropriate learning experiences. For example, learners' needs differ greatly depending on their level of experience, and what they need to learn. There will be times when sending an employee on a formal course is the right development solution, but it shouldn't be the default option to the exclusion of other forms of learning. The key advantage of 70:20:10 is that it encourages L&D to explore all available options for learning and not simply to rely upon formal learning.

What to do

— When designing your learning interventions, take account of different levels of learner expertise so that they are appropriate for novice, experienced and expert learners.

— Think about levels of learner care or motivation to learn and adapt your learning interventions accordingly. Simple is best for high care, more immersive and engaging interventions are needed where learner care is low.

— Be clear about how 70:20:10 will work for each intervention or performance need. Some areas will need more course-based teaching, and others less. Resources will need to be created to support manager-led coaching, online modules and performance support tools - all of which need to be appropriately balanced.

— Focus on providing specific, targeted interventions rather than trying to deliver a wider range of more generalised tools and resources.

4 Guidance for using 70:20:10

4.2 Getting started with 70:20:10 - five key questions to ask

4.2.5 How can your managers best support learning?

Line managers have a fundamentally important role to play in cultivating a new approach to learning in their teams. Managers are the conduit through which many learning opportunities arise and become a reality for employees. Managers assign tasks, delegate project work, allocate stretching assignments, and agree to shadowing and secondment opportunities.

Managers have huge potential to influence the scope of each team member's development. In order for true change to occur, managers must consciously consider all of the options available to them to help people develop, not simply resort to sending them on courses. In this way, they will maximise the potential for informal learning and experiential, on-the-job learning opportunities to become an integral part of how every member of their team develops.

What to do

— Within your 70:20:10 strategy, make expectations for line managers clear - embedding a developmental 'growth' mindset is fundamental.

— Focus on improving line manager capability in supporting the development of their teams - does the support you provide for managers enable them to hold effective 1:1 conversations, deliver constructive feedback and suggest appropriate development activities?

— Support line managers in encouraging collaborative, social learning across their teams, and in sharing positive experiences.

— Improve support for line managers to coach and mentor their teams to help team members maximise their capabilities.

5 Summary

When it is understood well, the 70:20:10 framework can be a catalyst for change in L&D. It acts as a trigger for L&D to review its current practice and identify whether enough attention is being focused on the non-formal learning activity taking place in organisations.

However, organisations and their L&D functions also have to be mindful of the problems that can arise when interpreting and implementing 70:20:10. Of foremost importance is the risk of taking the numbers too literally, and trying to force a rigid framework on the very people that L&D needs to help.

Through our research, we have found 70:20:10 to be an undoubtedly powerful motivator, which has shaken up long-held internal L&D assumptions about how to support learning in organisations. 70:20:10 has also given L&D considerable food for thought about its future direction and role. It calls for L&D to become a supporter, a facilitator and a driver of change, helping people to embrace learning from a more open, pervasive mindset. It also challenges current thinking about who is ultimately responsible for a person's learning experiences, and how those experiences should be organised and supported.

These are exciting times to be involved in L&D, as the opportunity to empower people to take control of their learning has never been greater.

6 References

Cross, J. Informal Learning: Rediscovering the Natural Pathways That Inspire Innovation and Performance (John Wiley & Sons, 2006).

DeRue, D. S. and Meyers, C. G. 'Leadership Development: A Review and Agenda for Future Research'. In D. V. Day, (ed.) Oxford Handbook of Leadership and Organizations (Oxford: Oxford University Press, 2012).

Dweck, C. Mindset: The New Psychology of Success (Random House Publishing Group, 2007).

Eichinger, R. and Lombardo, M. The Career Architect Development Planner (Lominger Ltd, 1996).

Ferguson, O. and Casebow, P. 'How Managers Learn (In Their Own Words): A Survey of Managers' Learning Activities and Their Effectiveness', GoodPractice White Paper (January 2010)

Jennings, C., Overton, L. and Dixon, G. 'In Focus: 70+20+10=100: The Evidence Behind the Numbers', Towards Maturity White Paper (February 2016). Available at: http://www.towardsmaturity.org/article/2016/02/02/in-focus-702010-100-evidence-behind-numbers/.

Jennings, C. '70:20:10 Framework Explained' The 70:20:10 Forum (2013).

Jennings, C. and Wargnier, J. 'Effective Learning With 70:20:10', CrossKnowledge White Paper (January 2012).

Kajewski, K. and Madsen, V. Demystifying 70:20:10 White Paper, DeakinPrime (Deakin University, 2012).

McLuckie, J. 'Social Media and Open Spaces for Community Formation: Implications for Learning and Practice'. Dissertation submitted for the M.Sc. in E-learning, University of Edinburgh (2011).

The Netherlands Institute for Social Research, 'Supply of Labour in 2016: Working, caring and learning in a flexible labour market', (30 August 2016). Available at: www.scp.nl/english/Publications/Summaries_by_year/Summaries_2016/Supply_of_labour_2016 (accessed 23 September 2016).

Pabial, S. 'More thoughts on digital skills in L&D', Thinking About Learning blog (10 August 2016). Available at: https://pabial.wordpress.com/author/sukhpabial/.

Pontefract, D. Flat Army: Creating a Connected and Engaged Organization (Wiley Sons, 2013).

Shackleton-Jones, N. 'Learning as Care', Aconventional blog (25 September 2011). Available at: www.aconventional.com/2011/09/learning-as-care.html.

Shepherd, C. The New Learning Architect (Onlightment, 2011).

Tough, A. Why Adults Learn: A Study of the Major Reasons for Beginning and Continuing a Learning Project (Ontario Institute for Studies in Education, Toronto, 1968)

Tough, A. The Adult's Learning Projects: A Fresh Approach to Theory and Practice in Adult Learning (Toronto Institute for Studies in Education, 1971).

7 Appendices

7.1 Overview of the research methodology

Following a period of desk research and a review of the available literature on 70:20:10, a shortlist of possible interview subjects for the project were identified in October 2014. Potential interview subjects were targeted and research interviews were conducted with five L&D experts during October 2014. Questions were formulated in advance, and all interviews were recorded via Skype. Major themes, important areas and key quotes were identified from the interview transcripts for inclusion in the report. The original report was developed during October and November 2014, and the second edition in September and October 2016.

7.2 About GoodPractice

GoodPractice has earned a fantastic reputation for delivering high quality content, designed to improve the performance of leaders and managers.

Via toolkits, e-learning and assessment tools, over one million people across more than 200 organisations are using GoodPractice's blended learning solutions to make the most of their skills and talents.

Improving the performance of your leaders and managers isn't just good for business, it's essential. Our business is about helping you make that improvement.

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— For more information about this report and press enquiries, contact Paul Gray, Marketing Manager on 0131 221 3100 or email pgray@goodpractice.com.