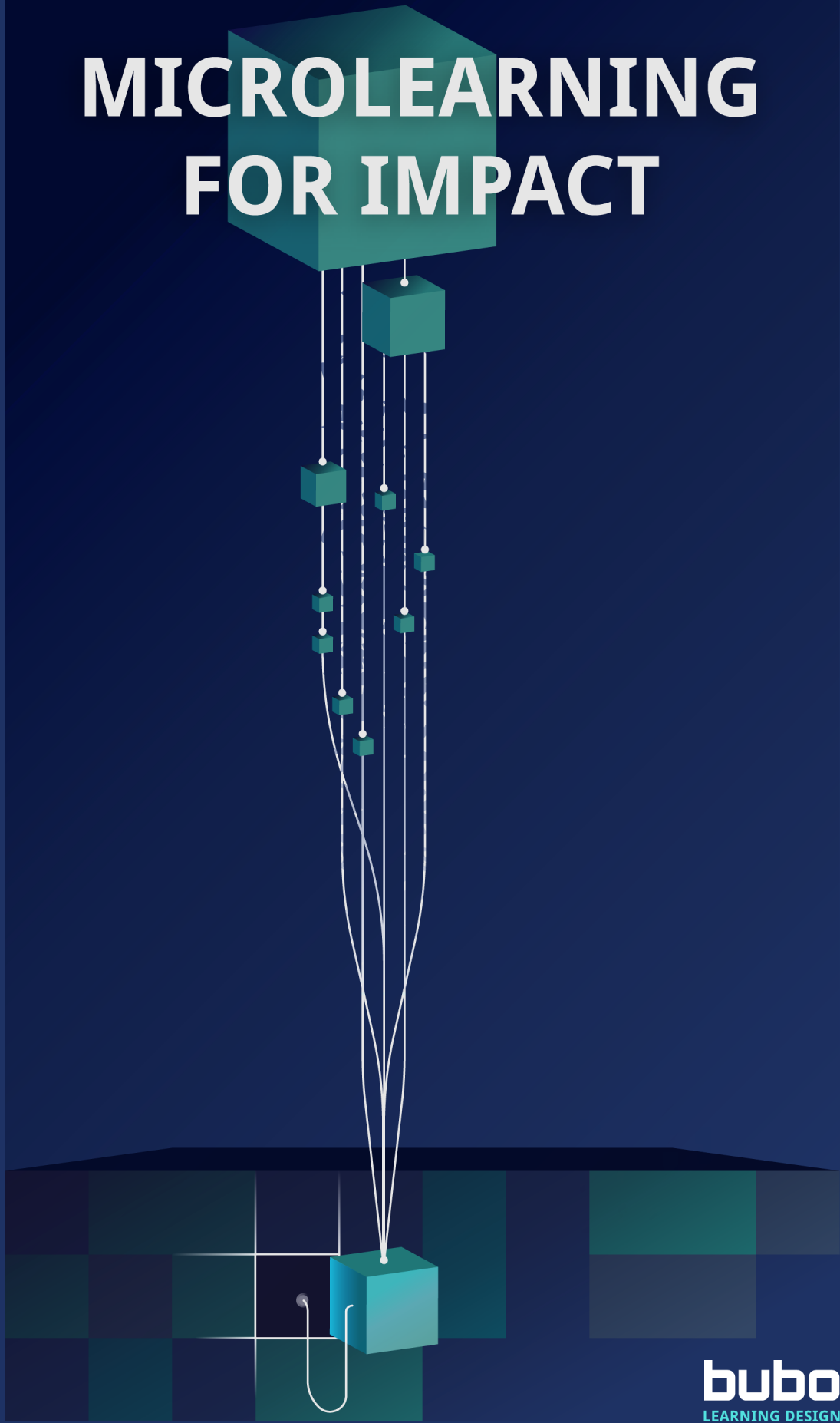
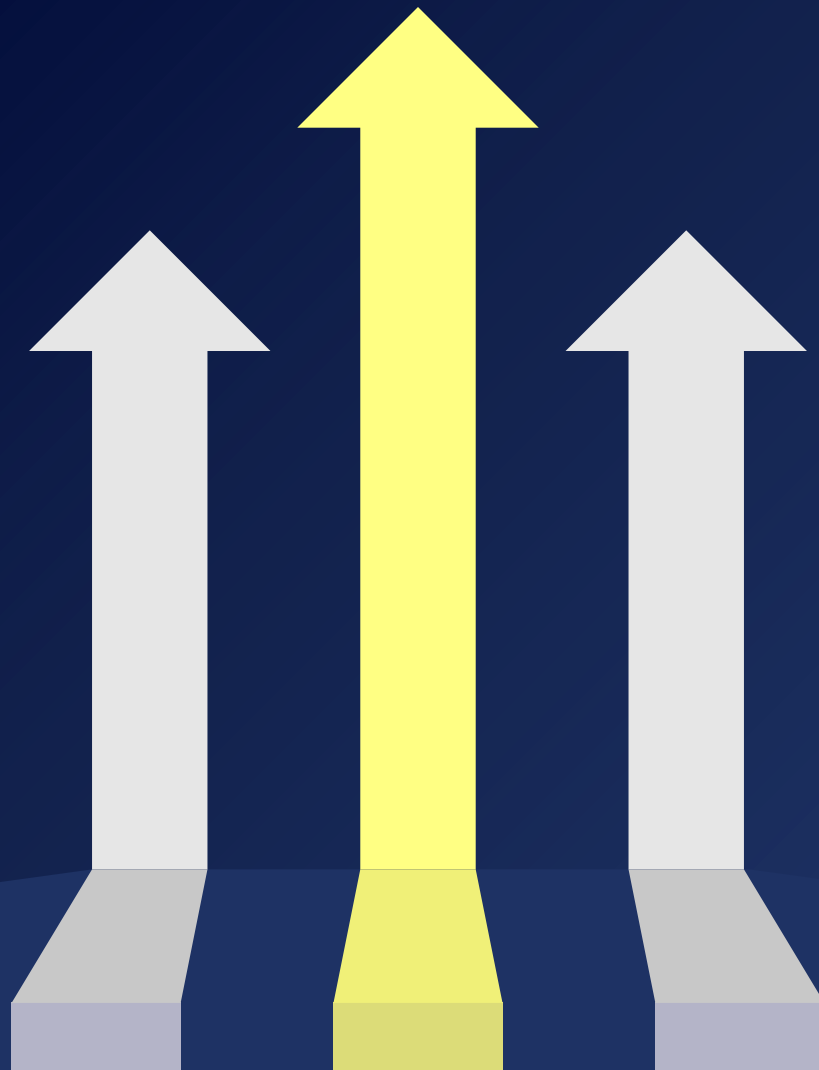


MICROLEARNING FOR IMPACT





In the ongoing search for **efficient** and **cost-effective methods** to improve the experiences of customers and employees alike for increased ROI, **microlearning** has emerged as a promising means towards achieving this goal.





While microlearning may encourage L&D in some ways to think small, the effect it has on memory is anything but.

In Hermann Ebbinghaus' landmark 1885 study¹ on the rate of decaying memory, colloquially called the "forgetting curve", demonstrated that upwards of 70% of new information is forgotten within a mere 24 hrs., and 90% within a week. Additional attempts at replicating Ebbinghaus' findings have supported his original results².

To combat this exponential degradation of newly obtained information, repetition and application is an absolute necessity to facilitate the creation of long-term memories³.

A typical microlearning course will, on average last no more than 15 minutes, and will be administered over several days to weeks to improve retention of the material.

Despite the brevity of microlearning, it is remarkably effective.

In a recent case study⁴ on the efficacy of microlearning in adults, participants' knowledge of skincare was tested after watching a **4-minute YouTube video** at specific time intervals. A significant increase in knowledge retention over two weeks was demonstrated. In fact, there was a **145% increase** in knowledge retention when comparing the training results to Ebbinghaus' projected curve of memory decay without reinforcement.

¹Ebbinghaus, H. (1948). Concerning memory, 1885. Readings in the History of Psychology, 304-313. doi:10.1037/11304-034

²Murre, J. M., & Dros, J. (2015). Replication and Analysis of Ebbinghaus' Forgetting Curve. PLOS One. doi:DOI:10.1371/journal.pone.0120644

³Roediger, III, H. L., Ph.D., & McDermott, K. B., Ph.D. (2018, July 19). Remembering What We Learn. Retrieved from <https://www.dana.org/article/remembering-what-we-learn/>

⁴Boring, C. (2020). Microlearning: An Andragogical Case Study on Knowledge Retention, Learner Satisfaction, and Behavior Change (Doctoral dissertation, Robert Morris University). ProQuest Dissertations Publishing.

This massive increase in information recall that microlearning allows, especially when considering the time saved compared to other training methods, can only serve to increase ROI by freeing up employees to work more efficiently or to further improve and refine their existing skill sets.

Undervalued and Underutilized Training



Training is viewed as low-hanging fruit when it comes time to cut costs because its value is often underestimated, especially if the training is ineffective. **\$83 Billion** was spent on training by U.S. industries in 2019; A decline of **5%** compared to the previous year⁵. This reduction in cost comes at a great risk, however.

A global survey of employers on the preparedness of new hires found that only 52% believed that their hires were prepared for their job in the finance sector⁶. The statistics are even bleaker when looking at general business activities on the same survey; a paltry 38% were perceived to be prepared.

In contrast to this perceived lack of preparedness, **Millennials**, one of the **fastest growing demographics in the workforce**, overwhelmingly express a desire for jobs with potential **growth and development**⁷.

Clearly, the U.S. economy has a growing workforce that includes not only Millennials, but also Baby Boomers⁸, and inevitably Gen Z in the future. All of whom undoubtedly possess a drive to succeed and grow.

This presents an unparalleled opportunity to take the traditional notion of training and mature it into engaging, and measurable, active learning.

⁵ Freifeld, L. (2019). 2019 Training Industry Report (Rep.). Minneapolis, MN: Lakewood Media Group.

⁶ Barton, D., Farrell, D., & Mourshed, M. (2013). Education to employment: Designing a system that works (Rep.). New York City, New York: McKinsey & Company.

⁷ Hickman, A., Ph.D. (2020, January 29). What 'Meaningful Feedback' Means to Millennials. Retrieved from <https://www.gallup.com/workplace/284081/meaningful-feedback-means-millennials.aspx>

⁸ Jackson, A. E. (2019, November 12). Baby Boomers Becoming The Fastest Growing Workforce: Glassdoor. Retrieved from <https://www.glassdoor.com/blog/baby-boomers-becoming-the-fastest-growing-workforce/>



Bubo's experience in L&D has led us to develop these core principles when envisioning our microlearning campaigns. First and foremost, training does not equal learning. Training curriculum has traditionally been arbitrarily segmented without regard towards continuity of thought processes, rigidly linear, and not measured, if at all, beyond the initial lessons.

In contrast to this, true learning and knowledge retention occur gradually and require a flexible approach, with opportunities for application and reinforcement. Ultimately, this fluid process will result in the creation of long-term memories for the learner to build a new skill set from.

To make this development appealing, the timing and method of reinforcement are essential for maximum engagement with the learning content.

Learners also desire autonomy during this process. Our goal is to empower everyone engaging in our learning campaigns to increase their satisfaction and rapport with their company through a shared sense of values and contribution towards success.

Finally, at every significant juncture during the campaign, the learner will be assessed for their ability to apply the lessons that were imparted to them. These checkpoints will allow us to tailor each individual's experience for optimum results. An essential component towards this greater personalization lies in the implementing Learning Experience Platforms (LXP), which includes an AI component to customize preferences for the learner.

Microlearning currently represents the most ideal methodology to achieve these goals, as it is designed to reproduce the way we learn outside the workplace, and values a flexible and measured approach towards L&D.



Here is what Bubo envisions the future of L&D to be for 2021 and beyond:

Facilitating real learning

The most efficient means of achieving long-term knowledge retention relies on presenting information in short segments that are spaced out to give the brain time to store, process, and retrieve the information. This approach, even in its limited duration of training, has proven to be an effective technique for enhancing memory recall.

Mobile and flexible learning

Owing to the advent of smartphones, information can be available whenever and wherever the learner desires. This necessitates the use of a platform that can be easily accessed and queried from any device at any time. Access should be frictionless and foolproof.

Analytics for holistic development

Social media pioneered the art of satisfying and creating desires for products based on internet data analytics. Using the same base principles of data collection and curation, LXP's will bring the knowledge to the learner, and identify future corporate leaders based on their interests and responses.

Effective processes for measuring short-term learning

We will evaluate the material's immediate comprehension, track when performance improves, and when short-term recall transforms to long-term skills.

5 points for creating campaigns for long-term success

- 1. Determine the Key Performance Indicators (KPIs) for each program.**
- 2. Leverage the data derived from the 2-month reinforcement/retention program.**
- 3. Leverage company data specific to the program's KPIs.**
- 4. Bring the data together in an LXP that will visually track and depict current data by the individual, group, team, geography, etc. on any device based on the KPIs.**
- 5. As data is compiled over time, trends and predictive metrics will take shape, allowing stakeholders to extrapolate future program performance.**



An effective and innovative L&D system using the principles mentioned above can be purchased or built on-demand. However, encouraging investment in an undervalued department, especially when failure has been the previous experience, is no easy feat. This credibility gap needs to be addressed to restore faith in the fundamental advantages of sophisticated L&D, particularly as COVID-19 changes the way we look at productive work. The ability to leverage disparate data related to learning and performance is exactly what is needed to create genuine learning experiences that demonstrate “hard” ROI to stakeholders.

We offer a unique approach and governing philosophy to seek out and create cutting-edge learning campaigns to further the development of both our customers and the field of L&D. Microlearning is a springboard from which we can make a compelling journey from training to learning. The transition from older, less productive training regimens is a difficult topic to broach, in part because most employees are tacitly complicit in the status quo. This is often due to pressure from various social and economic variables, which can appear to be beyond any one person’s control. Breaking out of the training rut will take work, diligence, and support at high levels within organizations.

Undoubtedly, the C-Suite would look significantly more favorably at the L&D groups in their organizations if their programs were measured and tracked over time to show tangible ROI. Now is the time to make that change, that is, in 2021, not 2025. Auspicious organizations have already been making the change from modest training, to more robust and comprehensive learning programs, after they thoroughly analyzed the financial benefits inherent in having a workforce with superior skill sets. In order to stay competitive when faced with the challenges of a growing workforce that is eager to learn, decisive action must be taken to access their hidden potential.



Bubo Learning Design, LLC has been providing video, web-based training, virtual simulations, and other cutting-edge modalities for learning to government and corporate clients since 2015. Our reputation for success is due to providing superior, innovative learning and training services throughout the United States and Canada, with clients based in Texas, Oregon, Washington, California, Minnesota, Michigan, and D.C. To date, our largest clients include Amazon, LinkedIn, Dave & Busters, the US Air Force, Thomson Reuters, and Ally Bank.

Our learning modules are designed to make the learner feel truly engaged. We replicate real-life scenarios that make the learning relevant and practical. These scenarios reflect what their day-to-day job experience is, or will be like.

It is an exciting time to be in learning technologies, as conventional methods and tools are giving way to more intriguing, dynamic, and immersive opportunities. Now it is possible to give employees an interactive learning experience that adequately prepares them for their on-the-job roles in more ways than ever before.

For more information on Bubo Learning Design, LLC, visit <https://bubold.com>. See “Our Clients” section to view our broad experience with both commercial and government clients.



Barton, D., Farrell, D., & Mourshed, M. (2013). Education to employment: Designing a system that works (Rep.). New York City, New York: McKinsey & Company.

Boring, C. (2020). Microlearning: An Andragogical Case Study on Knowledge Retention, Learner Satisfaction, and Behavior Change (Doctoral dissertation, Robert Morris University). ProQuest Dissertations Publishing.

Ebbinghaus, H. (1948). Concerning memory, 1885. *Readings in the History of Psychology*, 304-313. doi:10.1037/11304-034

Freifeld, L. (2019). 2019 Training Industry Report (Rep.). Minneapolis, MN: Lakewood Media Group.

Hickman, A., Ph.D. (2020, January 29). What 'Meaningful Feedback' Means to Millennials. Retrieved from <https://www.gallup.com/workplace/284081/meaningful-feedback-means-millennials.aspx>

Jackson, A. E. (2019, November 12). Baby Boomers Becoming The Fastest Growing Workforce: Glassdoor. Retrieved from <https://www.glassdoor.com/blog/baby-boomers-becoming-the-fastest-growing-workforce/>

Murre, J. M., & Dros, J. (2015). Replication and Analysis of Ebbinghaus' Forgetting Curve. *PLOS One*. doi:DOI:10.1371/journal.pone.0120644

Roediger, III, H. L., Ph.D., & McDermott, K. B., Ph.D. (2018, July 19). Remembering What We Learn. Retrieved from <https://www.dana.org/article/remembering-what-we-learn/>