

*Grovo*

# Bite Size Is the Right Size

**How Microlearning Shrinks the Skills Gap**

# Why This Matters to You

Attention spans are dropping at the same time technology is advancing, leading to a digital skills gap costing the U.S. economy \$1.3 trillion annually in lost productivity (equivalent to a loss of \$10 million per 1,000 employees). Therefore there's an ever-growing need for new and better ways to teach, learn, and train the 21<sup>st</sup> century workforce – and microlearning is the solution.

## Read on to learn:

- How we're moving from a culture of deep attention to hyper attention and why it matters
- Why microlearning is better for an increasingly digital audience
- How microlearning offers unparalleled opportunities for high production value, automation, and performance – all while slashing production costs by nearly half
- The principles of effective microlearning and how to create it for your own organization

# Part 1. What is Microlearning?

Microlearning is the process of learning through short, digestible, well-planned units.

Microlearning addresses the needs of learners and meets the required objectives of trainers -- solving the hurdles set up by technology and dwindling attention spans -- and it's done so in the most efficient and effective manner possible.

YouTube, TED X, and Khan Academy are often cited as the first successful examples of microlearning, while more recent examples include Grovo, Coursmos, and Mind Gym.

In sum, the difficulties facing the L&D community -- such as dwindling attention spans, rapidly accelerating technology, and training that can't keep pace -- is solved by adopting microlearning as a foundation of a new kind of curriculum. Failure to do so is setting off waves of repercussions -- immediate and costly inefficiencies for businesses that ultimately drive a loss in profits seeping into every department of every organization across the nation.

For businesses and trainers to adopt microlearning is to see their training time and costs reduced, their workers more fulfilled and productive, and their profits soar. But first, to understand how microlearning solves for these factors, we must review how a shift in our cultural and cognitive modes is impacting training in the 21st century.

“

*Microlearning is generally characterized by low time commitment, small chunks, short effort and narrow topics -- but is complex as a whole.*

”

—Hug & Friesen,

*Didactics of Microlearning*

# Attention Spans are Shorter

The way we pay attention, both individually and societally, has changed. And it's not just Millennials defining this trend – we're all moving in this direction:

- In the 1960s movie industry it was common knowledge that an audience required something like **20 seconds** to recognize an image while today that figure is less than **2-3 seconds**<sup>1</sup>
- In the year 2000, attention span -- as measured by adults surfing the web without distraction -- was clocked at **12 seconds** and by 2013, that figure had fallen to just **8 seconds** (anecdotally, the average attention span of goldfish is **9 seconds**)<sup>2</sup>
- By 2015, we'll be consuming more than **15 hours** of media a day and even older adults are consuming more online video<sup>3</sup>: in the second quarter of 2013, people aged 50-64 upped their daily consumption from **11 minutes** to almost **19 minutes**<sup>4</sup>

# Technology is Rapidly Changing

At the same time attention spans are shifting, technology is advancing at a rapid pace -- so fast, training can't keep up. Yet, technology is critically necessary to surviving and thriving in today's workforce:

- Technological turnover is leading to a skills half-life of just **2.5 years** for any given role -- meaning the skills you need to do your job will soon become obsolete<sup>5</sup>
- Time wasted as a result of inadequate digital skills is estimated at **21%** of a worker's time, costing businesses roughly **\$10,000** per employee<sup>6</sup>
- As a result, a digital skills gap has emerged, one that's costing our economy over **1.3 trillion** dollars annually in lost productivity<sup>7</sup>
- Our nation's productivity – as in the rate of growth based on output per unit of input -- is in crises (it's the lowest it's been in over **40 years**)<sup>8</sup>

# Traditional Training Isn't Working

Every year U.S. businesses spend over \$160 billion on employee learning and training, yet classroom training is time-consuming, expensive, and often ineffective. Current training methods:

- Are far too long: average time spent training is over **30 hours** per worker (this is **5 hours** longer than a decade ago)<sup>9</sup>
- Cannot be created fast enough to be effective: one hour of training takes **43 -185 hours** to create (on the low end) while certain kinds of online training take even longer<sup>10</sup>
- Most disturbingly, are having little impact: fewer than **15%** of participants successfully apply what they learn<sup>11</sup>; within **30 days, 80%** of content is forgotten<sup>12</sup> (and this figure jumps to **90%** after a year)<sup>13</sup>

# Part 2. Microlearning is Better for Learners

Bite-sized content perfectly suits an information-rich lifestyle because it enables learners to access small chunks of information instantly, anytime, and from anywhere. And because microlearning is short and seemingly current, trainees can rest easy that the content is up to date, correct, and meaningful to their work.

## It's Better for Engagement

- Microlearning, a logical and natural extension of micromedia (Twitter, Vine, Tumblr, Yammer, etc), trims out the fat, leaving ONLY the key facts and relevant information
- It combats learner boredom and disengagement with visual/interactive elements like bullet points, games/quizzes, and infographics for quick viewing and easy comprehension
- Short, focused sessions (less than 7 minutes)<sup>14</sup> avoid mental burnout and suit the brain with respect to energy and alertness

## It's Better for Retention

- The capacity of short-term memory (STM) is about 4 items<sup>15</sup> however, this can be expanded by chunking content which eases integration into long-term memory
- Microlearning can yield an average of 4-5 learned takeaways from a series<sup>16</sup>
- Microlearning caters to a variety of learning styles (visual, auditory and kinesthetic/tactile, etc)

## It's Better for Application

- Distributed practice has been proven to increase performance by 17%<sup>17</sup>
- Microlearning is conveniently tailored around participants' schedules and doesn't require travel or interruption of normal work activities
- Based on experience level and need, participants can orient themselves in their own coursework, facilitating a unique and personal learning journey

# Part 3. Microlearning is Better for Trainers

The longer the training content, the longer it takes to produce, turnaround, and execute. Rapid creation software is changing all that by easing management and distribution via an LMS or CMS, while dramatically reducing lost productivity for out-of-office workers and unnecessary expenditures like travel, venue/trainer fees, refreshments, and incidentals currently associated with classroom training.

## It's Faster, Cheaper, Easier

- It's estimated that Microlearning can cut development costs by 50% while increasing the speed of development by 300%<sup>18</sup>
- Microlearning offers a modular assembly, which is easy to manage in a CMS, making swap outs and corrections fast and simple (at Grovo our turnaround time for lessons is less than 24 hours)
- It's ideal for global training and multiple cultures, as small segments are easier to translate

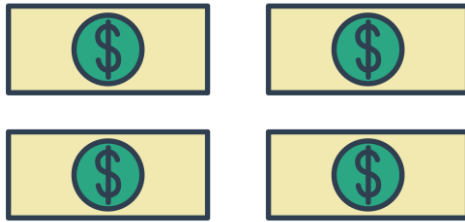
## It Offers Production Value

- When you've saved nearly 50% on training, you can afford to cater to the appetites of a demanding audience accustomed to entertaining content and high production value
- Microlearning allows for experimentation with various formats, styles and interactive elements, piloting and getting feedback in real time to create the most attractive and engaging experience possible
- Microlearning allows maximum benefits through minimal input – a cost-effective tool that's less labor-intensive to design, execute, render, upload, etc.

## It's "Just in Time"

- Microlearning can be delivered at the point of need, when a trainee actually needs the information, or when they're the most receptive to receiving it
- It can be used as a performance aid or quick problem solving tool in the field, particularly for professions that require continual updates of prices, policies, etc.
- Microlearning is easily trackable and assessable, aiding organizations to see the impact training has on actual job performance, in real time





## Traditional Training

- Costly
- Structured
- Trainer-driven



## Microlearning

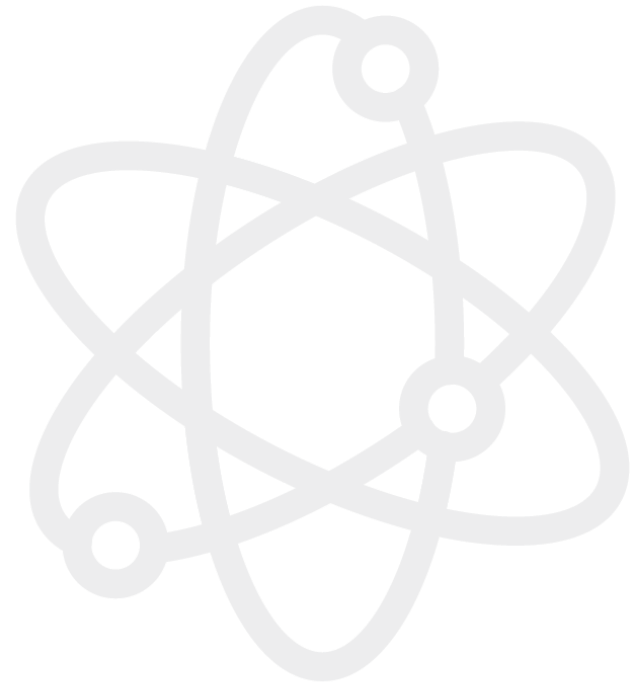
- Cost-effective
- Flexible
- Learner-driven

# Microlearning Works

Simply put: short, engaging content does better than longer, more tedious lessons and training solutions like Grovo know this because we've seen the results in our own data. In fact we see a perfect correlation between the length of a lesson and whether learners stick around until the end of the video. And we're far from the only ones to notice the trend

Shorter =

- **more engagement**
- **more completion**
- **more retention**
- **more application**



# Part 4. Principles of Microlearning

Microlearning is not just putting pages of classroom training online, nor is it splitting an entire 8-hour classroom experience into 2-3 minute chunks. Rather, the core goal is about finding “application points” and aiming for “working proficiency.”

## It's Short

- There's no correct length — some lessons are only a few seconds long — because if you need immediate, on-the-job training, you can't interrupt the work for long
- Try the 90/20/8 rule: never run longer than 90 minutes, change the pace at least every 20 minutes, and get trainees actively involved in the content every 8 minutes<sup>19</sup>
- Or try Grovo's methodology: no lesson longer than 3 minutes, change the pace every 20-40 seconds, and aid recall by interspersing short assessments between modules

## It Uses Small, Granular Units

- What's more important than length is that the units are small and granular compared to the overall learning objective
- The units should further the learning task while reducing complexity, still fitting into a timeslot appropriate for application
- They should be self-explanatory, self-contained, autonomous, yet still act as part of a larger unit

“

*Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius, and a lot of courage, to move in the opposite direction.*

”

*-- E.F. Schumacher,  
author*

# Principles of Effective Microlearning

## It Uses Story

- All human memory is based on associations. Therefore as learning content shrinks to smaller and smaller units, learning contexts become even more critical – and one way to do that is through story
- Stories successfully grab a trainee's attention and achieve "instant learning"
- Stories need not be long: they can be told using a single picture, a short animation, or just a few words

## It's Recursive

- If you need to learn something in a short amount of time, it's helpful to make your content recursive, (i.e. repeatable, formulaic, and non-linear)
- A recursive approach allows for a top-down understanding, or a way to cover the content – start-to-finish – in a short period of time, before you master all the individual elements
- Microlearning allows you to focus first on the most difficult, and then on the least important of the individual elements, covering a lot of material quickly

“

*Story can be told using a single picture, a short animation, or just a few words.*

”

— Grovo

# Principles of Effective Microlearning

## It Finds the Application Points

- Most skills are bundles of smaller skills, and there's usually only a very small set of things you use all the time (in guitar, there's an essential set of four chords that can play nearly any pop song, for example)
- Focus on how to isolate these “application points” in the most bloated content and apply a step-by-step process to strategize your microlearning

## It's Holistic

- Once content is chunked into modular and bite size pieces, aim to offer a 360° view of the topic in order to deepen one's understanding in a meaningful and varied way
- Holistic content works well for digital lessons because there's often more than one way to get a result
- Examples of holistic content include: concepts, best practices/principles, procedures/tutorials, demonstrations, metacognitive strategies, etc

**Example of 360° learning for a “How to Do a Google Search” inquiry include:**

- » *Why Google is so Popular (overview)*
- » *How To Do a Google Search (basics)*
- » *How to Do Academic Research Easily*
- » *Get Better Results with Advanced Searches (using modifiers)*
- » *Finding Google Easter Eggs*
- » *How to Get a Direct Answer from Google*

# Principles of Effective Microlearning

## It Uses Rapid Creation

- The platforms we're training on regenerate so quickly, learning of any sort needs to be created rapidly in order to be effective
- Content repositories that already house microlearning (ie, Youtube, Grovo, Coursmos, etc) are helpful as you can search for specific topics or lesson lengths
- Or, create your own microlearning with rapid development software via LMS or CMS

## It Uses Show and Tell

- Learners often skim content, so bullets and numbered lists are easy ways to present your information clearly and concisely
- Whether by easy-to-navigate PDFs with a clickable table of contents or a user-friendly mobile app, developers should aim to make reference tools house all the content learners need to know
- Trainers and developers should aim for a 1:3 ratio of “tell”, “show” and “do” (less tell, more show & do)

“

*What I hear, I forget.*

*What I see, I may  
remember.*

*What I do, I  
understand*

”

— Confucius

# Summary

Microlearning has consistently achieved higher rates of improvement in performance, value, and return on investment over traditional methods of training, and on top of that, the bite-size approach is significantly faster, easier, and cheaper to produce. The benefits to both the learner and trainer are numerous, including offering science-backed methods to shrink the digital skills gap in today's workplace. To cater to the needs of future workers:

## Training needs to be:

- Micro / compact
- Highly engaging
- Offer high production value
- Rapidly Produced
- Applicable to the needs of all future learners (Millennials, those with a Skills Gap etc).

**All of which can be accomplished with microlearning. To develop microlearning and apply it to your own course material, you want to keep the following principles in mind:**

- Needs to be Short
- Uses Small, Granular Units
- Uses Story
- Is Recursive
- Finds the Application Points
- Is Holistic
- Uses Bullets, Lists, & Reference Tools
- Uses Show & Tell
- Requires Rapid Creation



To find out more check out our upcoming playbook:  
***“Training the Trainer: How to Create Microlearning”***  
*or request to access our similarly titled online video course.*

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