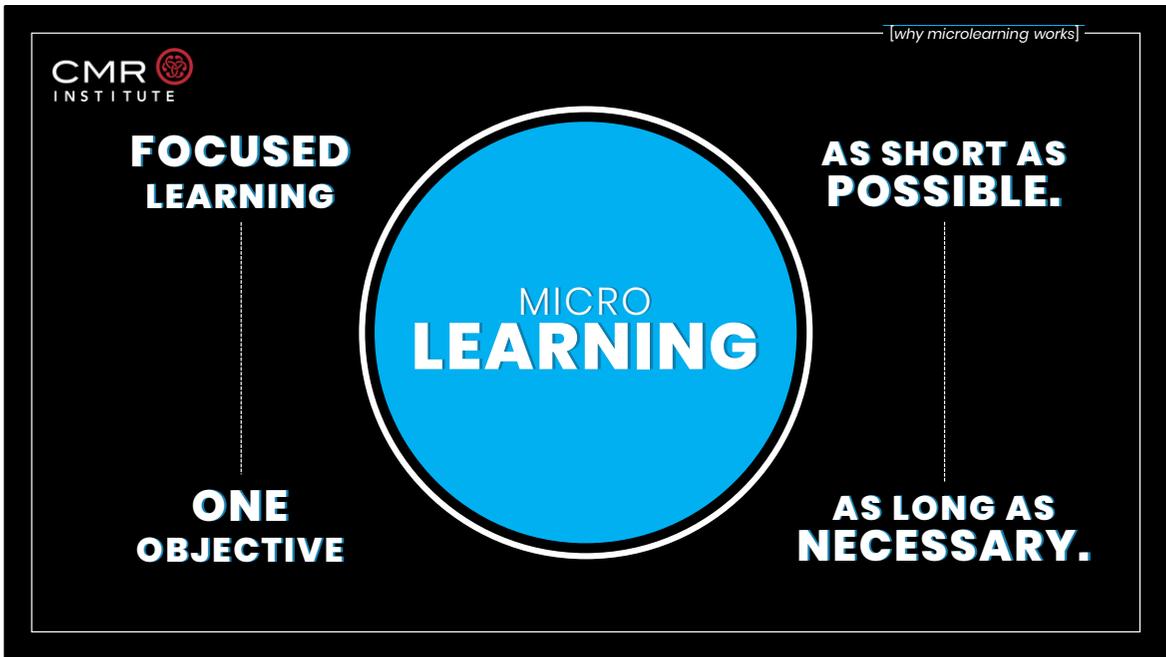


*little learning and*  
**BIG BRAINS**

By now, it's likely that you've heard about a big learning trend... one that actually can be quite small. In recent years, Microlearning has been all the rage; yet, unlike many buzz words that come and go, microlearning has persisted. While often misunderstood or mischaracterized, microlearning remains a much sought-after modality for learning.



When it comes to defining microlearning, most of the attention tends to go to duration. You'll hear things like: bursts, small doses, short, succinct, bite-sized and of course, everyone's favorite... the magic timeframe that is strangely specific, yet seemingly random. Maybe you've heard, "Well it can't be microlearning if it's more than 20 minutes." Or "Microlearning is 10 minutes or less." Or even, "Microlearning has to be 3 – 5 minutes, tops." But these diminutive descriptors tend to overshadow the actual 'learning' component of microlearning.

That's why we believe 'focused' is a much better way to view microlearning. And by more focused, we mean concentrated on one learning objective. Intensive on adding one skill or changing one behavior. Keeping all the need to have information, and excluding the nice to have or supplementary. And by staying focused on these items, the learning IS indeed shorter. In other words, microlearning should be "As long as necessary, and as short as possible." There is no definitive rule on how long microlearning SHOULD be. The key is the focused nature of the content and that it feels short and manageable to learners. By being focused, microlearning presents information in a way that encourages understanding, is less overwhelming and improves retention... all things that support our performance goals.



So, just who are we trying to reach with learning these days, micro or otherwise? This is a great place to begin the conversation.

- We are trying to reach learners that are **DISTRACTED**. So learning solutions must be **ENGAGING**.
- We trying to reach learners that are **IMPATIENT**. So learning has to be **ON-DEMAND**.
- And we trying to reach learners that are often times **OVERWHELMED**. So learning has to be **RELEVANT**.



We are trying to reach an audience that has less than 1 percent of their work week to dedicate to learning.

We are talking about an audience that, on average, has less than 1% of their work week to dedicate to training and development. That's just 24 minutes a week.



WE HAVE TO MAKE OUR  
CONTENT *ACCESSIBLE*  
IN THE MICROMOMENTS  
OF LEARNING.



So what do we know about the needs of modern learners? Simply, they need learning to be ACCESSIBLE. Meaning, learning needs to be not only informative but also engaging. It has to be available, when and where they need it. It must be relevant and applicable to the job they are doing. And it has to be concise in order to respect the limited amount of time they have to dedicate to learning.

This might seem like a lot, but the good news is microlearning can check each of these boxes.



So we know the needs of modern learners, but what about their expectations when it comes to learning content.

Microlearning also fits the expectations of modern learners. Think about it, informal microlearning occurs on multiple levels, every single day. With the significant integration of technology and the influence of social media, people have become accustomed to gathering and consuming information in small bursts. Our technologically-tethered society is leading to the expectation of tiny input.



And if this is what we've grown accustomed to and prefer in our personal lives... It only stands to reason that we would have the same expectation in our professional lives.

And this is why workers now get interrupted as frequently as every 5 minutes (ironically, often by work applications and collaboration tools.)

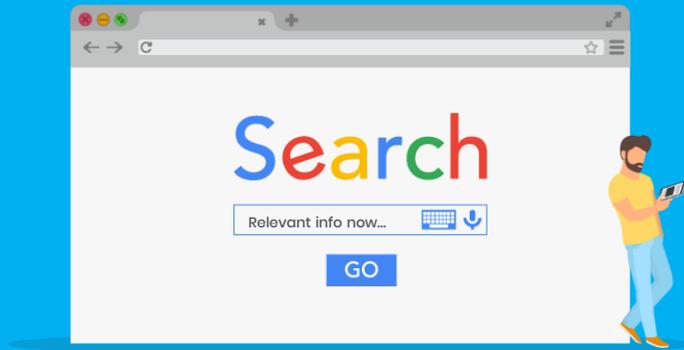
This is why people unlock their smart phones 9 times an hour...

It's why most learners won't watch a video for longer than 4 minutes...

AND it's why designers now have only 5-10 seconds to grab someone's attention before losing interest or being distracted by something else.

For right or wrong, this is the reality. Consider how we take in content throughout a normal day... we get it in little byte sized pieces, don't we?

[I don't want to wait, I want to find it now.]

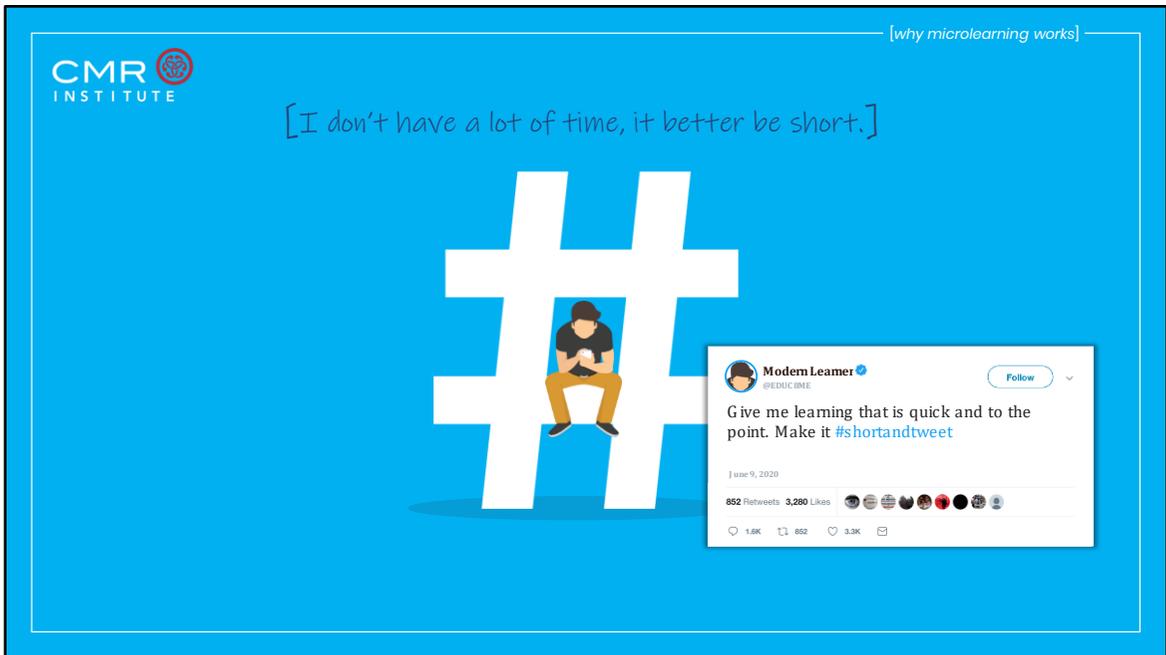


When it comes to the expectation of the modern learner, look no further than our web-browsing and social media practices.

Here's a modern learner's way of thinking... "I don't want to wait, I want to find it now" – well thank you Google!

→ this is an expectation not only of accumulation, but also of curation (that is, I want you to find the information I need AND I only want the most pertinent information)

Modern learners want the information they need now, and they want it to be highly relevant.

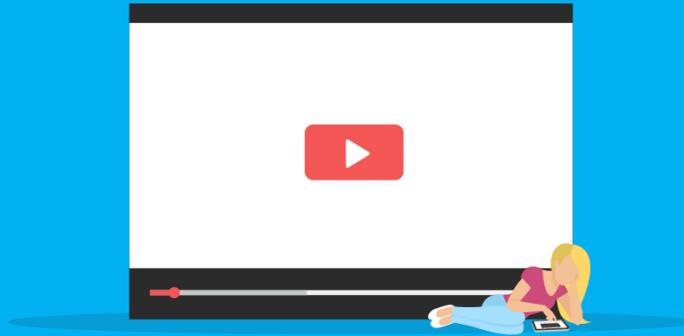


Here's another one... "I don't have a lot of time, this better be short" – and a tip of the cap to Twitter

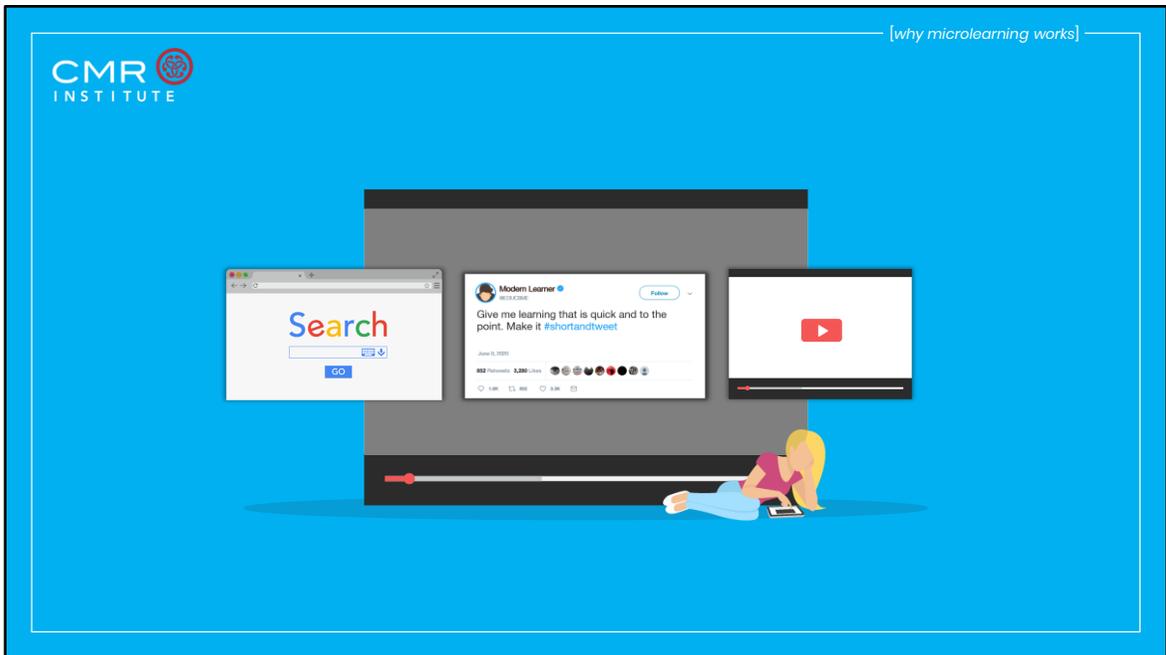
→ That's right, if it's more than 280 characters, it might as well be a novel.

Modern learners want the information that is presented to them to be short and to the point, because that's what they're used to.

[I want my learning when and where I want it.]



One more... “I want my learning when and where I want it” – here’s looking at you YouTube  
→ this is an expectation of on-demand content, regardless of location, situation or time.



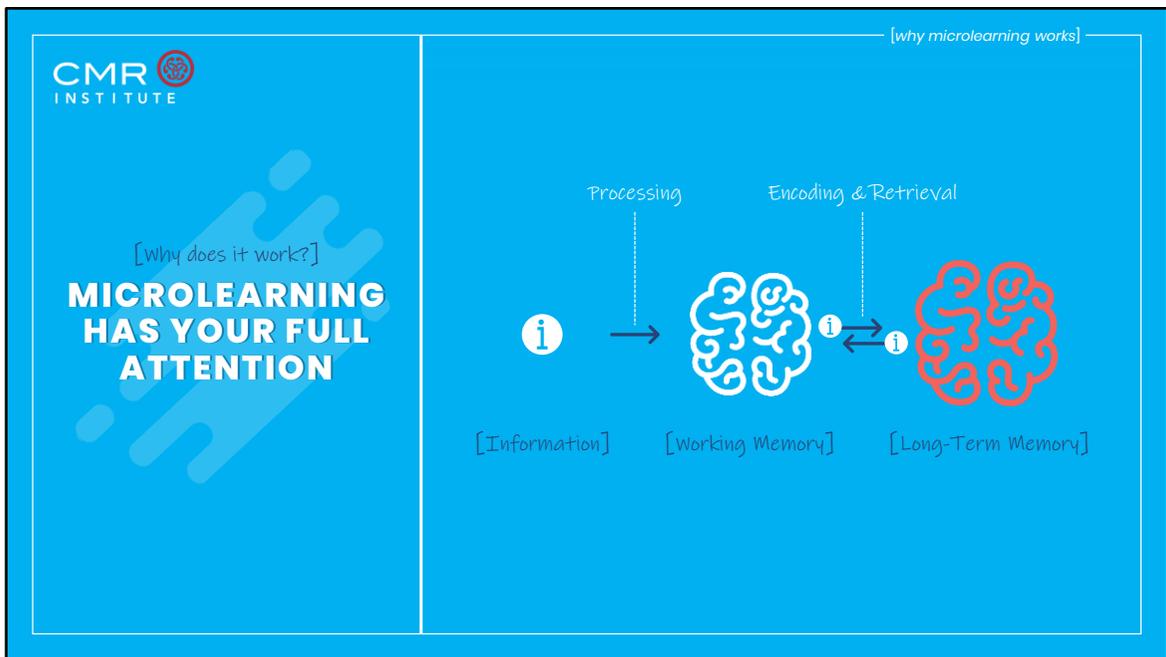
To sum it up, modern learners expect short, informal learning they can fit into their moments of need.

Yep, our learning expectations are an extension of our micromedia and social media habits. (we want content to be quick, easily understood, and on-demand)

And of course, the impact of each of these is only compounded by the smart devices we all keep by our side 24 hours a day.

**What brain science says  
about microlearning.**

So now that we have a better understanding of how microlearning can fit the needs of learners and how it lines up with their expectations, let's take a closer look at the science behind microlearning and some important learning benefits.

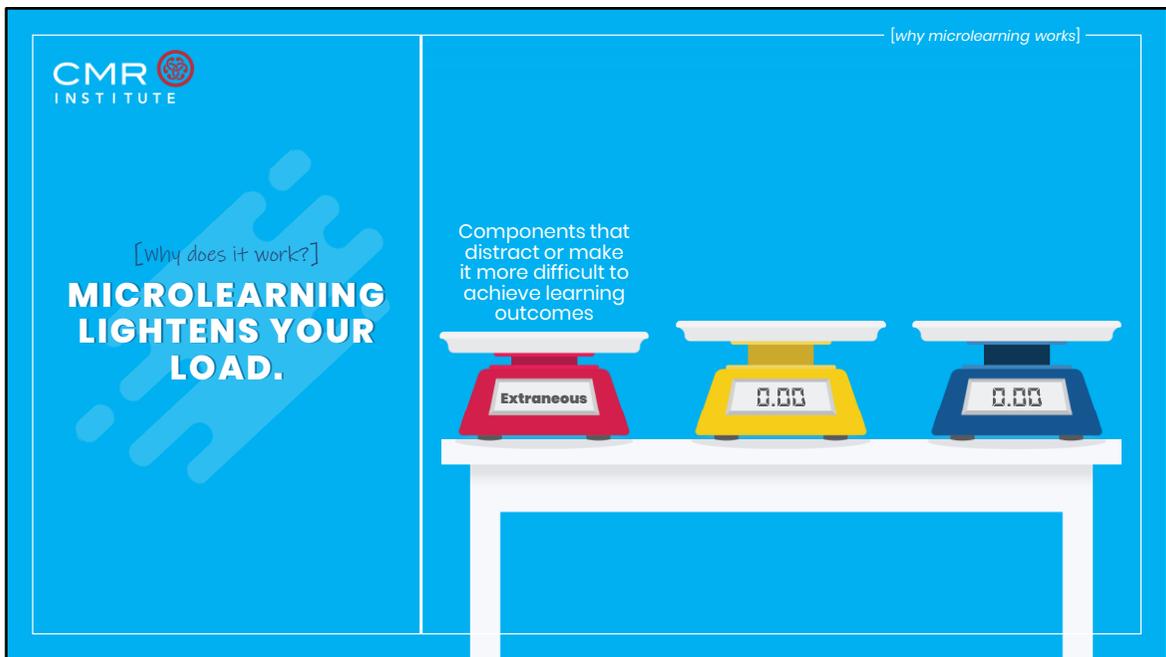


So why does microlearning work? Well, for starters, microlearning has your attention... specifically, the attention of your short-term memory.

You've probably heard the stats about how our attention spans are dwindling to that of a goldfish. Which, isn't exactly true. Think about the last awesome movie you went to that you really wanted to see... chances are that was 2+ hours and you were completely immersed. Nope, it's not our attention spans that are the issue, it's our expectation of immediate information gratification that gives the appearance that we can't pay attention to stimuli for very long, when in reality, we just won't.

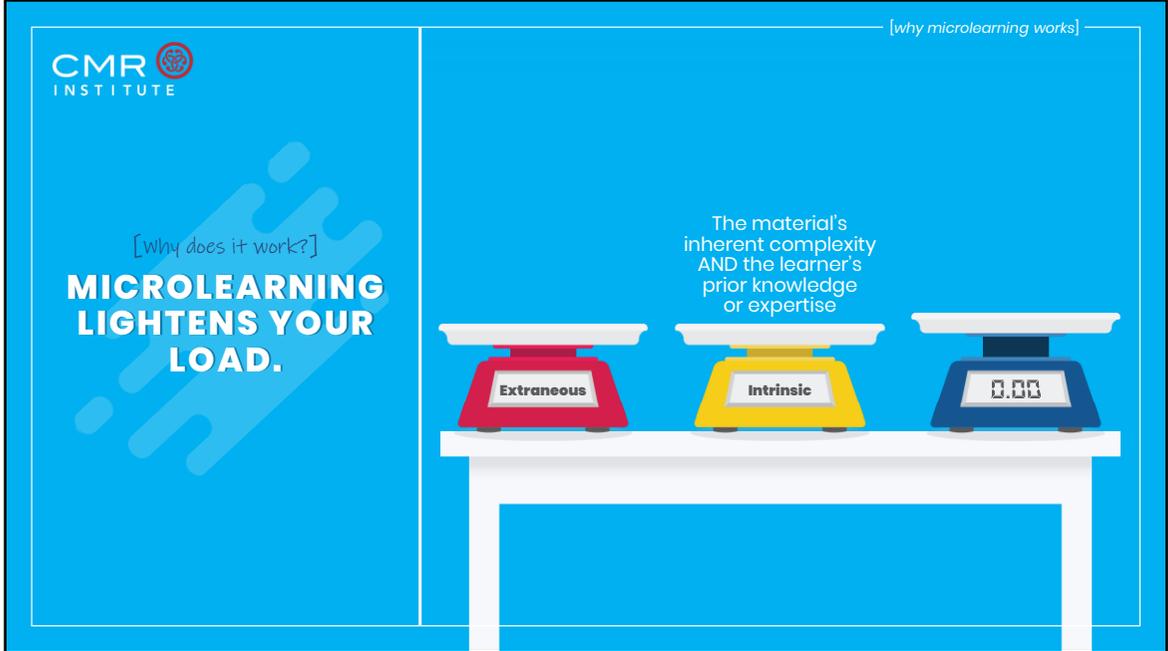
Because microlessons are short and focused, they tend to keep learners' attention, ensuring they are more engaged in the learning process. Increased engagement results in higher retention and a better chance of transferring knowledge and skills to the brain and the workplace. Working memory is also characterized by a very small capacity... meaning it can only hold a few pieces of new information at once.

Microlearning, or as we've defined it, more focused learning... leads to less irrelevant information clutter and thus, it makes retention easier.

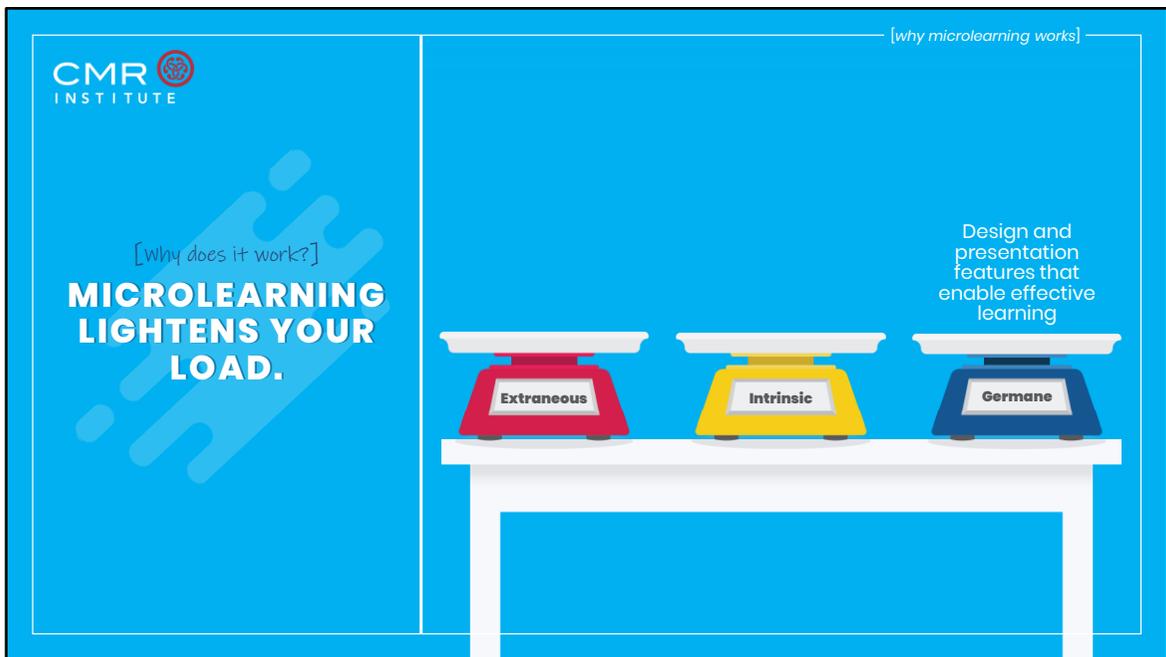


Microlearning also doesn't overload learners. Cognitive load refers to the demands placed on working memory in terms of storage and information processing. There are 3 types of cognitive loads... one we want to decrease... one we can't really control... and one we want to increase.

The first is an Extraneous load, which is any component that distracts from learning. A poor design, flashy but useless animations, complicated vocabulary, background music or the mere presence of irrelevant material can tax the learner's processing capabilities and thus, increase the extraneous load of a course, making transfer of knowledge less likely. The good news is, this is where microlearning can shine, by providing learners with only the most important and necessary information, thereby reducing extraneous load.



The next is an Intrinsic load, which refers to the inherent complexity of the learning material and the prior learning or expertise level of the learner. Unfortunately, you can't make upper level math any less complex and, by the same token, you don't control the prior knowledge a particular learner brings to the table. So you can't do much to reduce this load. Sorry.

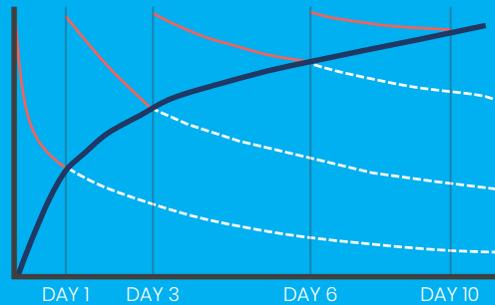


The final one is Germane load, which is the mental capacity directed toward integrating new information with existing knowledge. (You will want your courses to be heavy with this one!) Making ties to existing knowledge, offering context or comparing to a more simplistic concept are all examples of making it easier to link new information in working memory to existing knowledge in long-term memory.

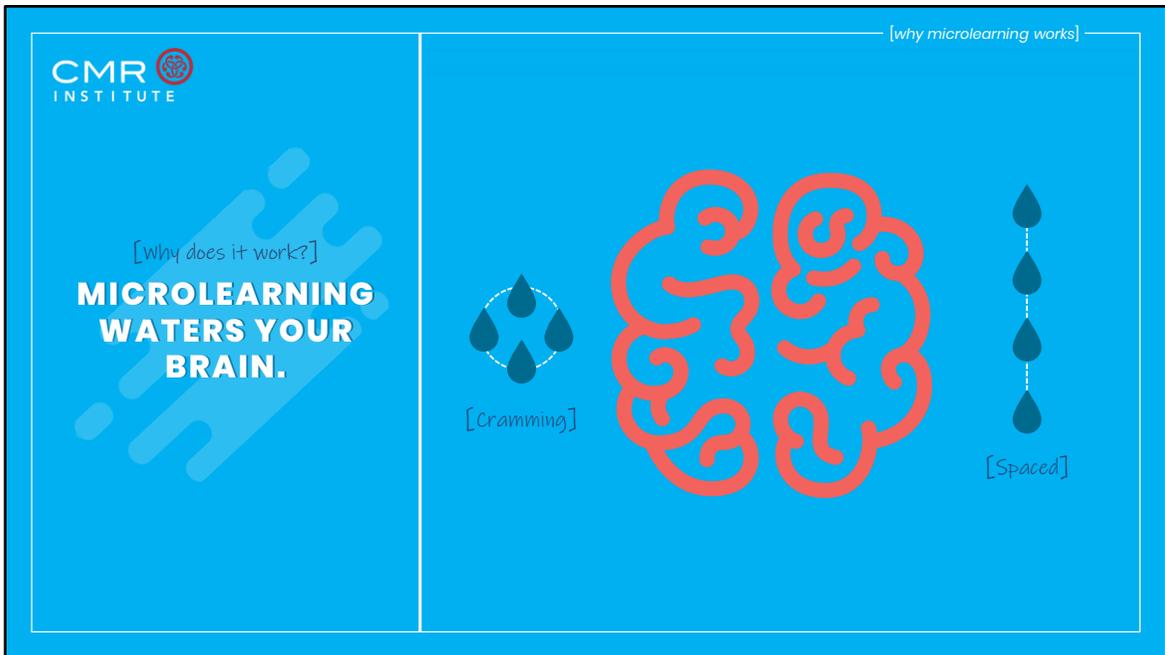
So, when it comes to cognitive load.... shorter, more focused learning doesn't throw too much at a learner at once AND it requires less mental effort. Not overloading working memory makes comprehension and the transfer of knowledge easier. Microlearning works, in part, because it's more in line with how our brains naturally perceive and store information.

[why does it work?]

## MICROLEARNING WATERS YOUR BRAIN.



The final concept to discuss is the idea of spaced-learning. But in order to talk about this, we must first talk about the related theory of “the forgetting curve.” If you’re unfamiliar, the basic theory is that we all have a decline in memory retention overtime. Not exactly groundbreaking news, right? But, what’s interesting about the theory is the concept of strength of memory. The red and white curves show the drop off in retention, mere hours after being exposed to information. However, if learning is spaced out, it actually gives a boost of sorts to the memory, telling the brain to hold on to that information longer. The more the information is retrieved overtime, the stronger the memory becomes and the longer the learner can recall it.



This concept of spacing, or distributed learning as it's sometimes called, is a particularly relevant aspect of the brain science of microlearning.

Think of spacing as the opposite of cramming for a test. When you're just reviewing content over and over in one concentrated block of time, you run into what is known as "fluency"... that is, the feeling that you think you know something because you've recently covered it. We've all been there, right? But what we're really after is "mastery," or truly retaining knowledge and understanding concepts.

It turns out, distributing or spacing shorter bursts of learning is way more adept at getting to mastery than cramming or studying large blocks of content. Benedict Carey, a New York Times Science Journalist compares it to watering a lawn. He says you can water a lawn once a week for 90 minutes or three times a week for 30 minutes. Same amount of water, right? But spacing out the watering during the week will actually keep the lawn greener over time. In much the same way, it seems that spacing out smaller pieces of information multiple times (as opposed to cramming), actually helps with learning retention.

**Needs**



**Expectations**



**Brains**



So now you might be thinking, ok great... microlearning aligns with the needs of modern learners... it fits with their current expectations AND it feeds information to the brain that increases knowledge transfer... but what now? Now is when you begin to put together the big picture of microlearning. Take a step back and think about your overall learning strategy. This exercise will help you see where microlearning can have the biggest impact

[See the BIG picture]

**What programs do you have  
and what topics do you cover?**

Consider your overall learning strategy... what are the programs you have and topics you cover?

[See the BIG picture]

## Who are the audiences you serve?

Who are the audiences you serve? How do they take their training currently? What devices do they use (laptop, tablet, phone)?

[See the BIG picture]

## How and where does microlearning fit in your current strategy?

How do you see microlearning fitting into your current learning strategy? Brainstorm all the ways that it could work. How do you see it helping the most? Where can it have the biggest impact the fastest?

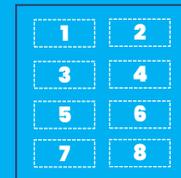
[How will you use microlearning?]

**Stack It**



**Blend It**

**Space It**



**Support It**

When it comes to microlearning, you have options. You could stack it, using microlearning components to build out a curriculum.

You could Blend it... Mixing microlearning assets in as assigned content such as short tutorials that support and build on the main learning content. Think of taking class in college and then being assigned an article to read or questionnaire to complete before the next class.

You could Space It... As we've seen, spacing out small bites of content that build on one another is not only a quick way to engage learners, it's also a great way to move knowledge into long-term memory.

Or you could use microlearning to support your learners in their micromoments of learning... microlearning assets act as learning and performance support tools/job aids. They could be unassigned learning resources that, while not technically part of a learning plan, can allow quick access to practical advice and how-to videos to assist in carrying out tasks.

CMR INSTITUTE

[why microlearning works]

*little learning and*  
**BIG BRAINS**

CMRinstitute.org solutions@cmrinstitute.org 844.790.3021

The graphic features a blue background with a white border. In the top left corner is the CMR Institute logo, which includes a gear icon. In the top right corner, the text "[why microlearning works]" is enclosed in a thin white line. The central focus is a large, stylized brain outline in red, composed of thick, swirling lines. Overlaid on this brain is the text "little learning and" in a light, italicized font, followed by "BIG BRAINS" in large, bold, white capital letters with a slight drop shadow. At the bottom, three contact options are listed: a laptop icon followed by "CMRinstitute.org", an envelope icon followed by "solutions@cmrinstitute.org", and a telephone handset icon followed by "844.790.3021".

However you decide to use microlearning for your particular learning strategy, be confident that it can meet your learner’s needs... it can fit with their expectations... and, because of the supporting brain science, it can help them learn better!

For more on microlearning, check out CMR’s associated resource “Developing a Micro Mindset”, OR visit us online at [CMRinstitute.org](http://CMRinstitute.org), shoot us an email or give us a call.