

Microlearning: Bite-Sized Content



Microlearning is one of the most widely discussed and debated trends in the learning industry. Is microlearning more than just a quick fad? We think so.

The ATD Research report *Microlearning: Delivering Bite-Sized Knowledge* reveals that some 40 percent of the study's nearly 600 participants indicate that their organization currently uses microlearning. Of the other 60 percent who reported that their organizations don't currently use microlearning, 41 percent plan to start.

This momentum concurs with Axonify's 2018 *Microlearning Global Benchmark Report*, which finds that microlearning is used across dozens of industries to support a multitude of training applications. In particular, Axonify reports large pockets of adoption in what it calls "deskless" workers in retail (27 percent), manufacturing and logistics (25 percent), and finance and insurance (22 percent), as well as telecommunications, healthcare, call centers, pharmaceuticals, and a handful of others.

Convenience is no doubt a major factor for these industries. In fact, participants in the ATD study who currently use microlearning in their organization reported the top benefits were that learners can access it when it's convenient (41 percent) and it's less likely to overwhelm learners (40 percent).

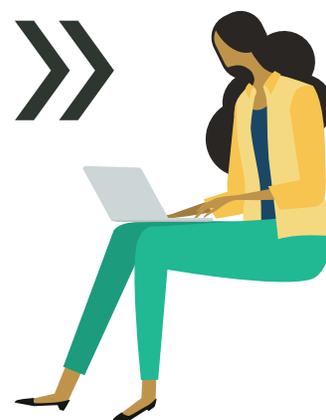
But convenience cannot be the only reason your organization decides to use microlearning. Indeed, like any other learning effort, you need to be careful and strategic about how you incorporate it into your learning ecosystem for optimum effect on employee performance.

What Is Microlearning?

Karl Kapp and Robyn Defelice note in a recent article in *TD magazine* that there are many definitions for microlearning, ranging from verbose academic definitions to short off-the-cuff ones, such as "any short piece of content delivered to a learner." After scouring the research, they conclude that although there are various explanations of what microlearning is, most definitions agree that:

- Microlearning is focused on one to two learning objectives.
- Microlearning is brief and typically between two and seven minutes (though this varies up to 15 minutes).
- Microlearning is action-oriented in the sense that there is a specific achievable purpose or goal.

Although there are some common delivery options for microlearning, it's important to note that modality isn't necessarily a defining factor. Microlearning can take the form of a quick, self-paced e-learning course, a video, an app, or an infographic. You get the idea. What is important is that the content can be quickly consumed and fits a critical purpose or meets specific learning objectives.



How People Use Microlearning

While microlearning isn't constrained to any particular modality, it is important consider how you will use microlearning. According to Kapp and Defelice, four key uses for microlearning—performance, persuasion, post-instruction, and preparation (the four Ps)—exemplify its key characteristics while giving varied and modern approaches to supporting employees everywhere in their respective work environments. Let's take a closer look.

Performance-Based Microlearning

This first use for microlearning is seen as just-in-time or at the point of need—for example, completing a company mileage report or reviewing the company's policy and expectations for holding web-based conference calls. Microlearning doesn't always have to be cognitively focused content, either. For instance, performance also can have an affective domain emphasis, or it could be a mixture of affective and cognitive content—such as how to write a constructive performance statement for a performance evaluation, as elaborated in **Table 1**.

Persuasive-Based Microlearning

The persuasive use for microlearning is meant to modify the learner's behavior and is usually goal oriented—for example, applying an objection-handling technique for a sales representative. In turn, the goal is to not only use the method in a sales call but be successful in using it. Another example is using hand sanitizer before seeing a patient. The goal here is to reduce the transmission of bacteria and germs. This use of microlearning works well in tying performance to the organization's strategic outcomes.

Post-Instruction Microlearning

Post-instruction microlearning complements a larger training program that a learner has completed. This type of microlearning distills the key concepts from the larger training course into bite-size pieces for use in refreshing the learner, whether scheduled by the organization or available readily to learners. For instance, trainees for a new nightclub may be given a small card to carry that highlights characteristics of a fake ID, information taken from a larger training course on the legal responsibilities of their job role. Or a lab tech employee may want to review procedures on how to report a spill—procedures which were part of a comprehensive training course on lab management.

Preparation-Based Microlearning

Preparation provides an opportunity to set up a series of planned learning initiatives to prepare for a larger learning event. This could be a content refresher or new, general content. Either way, learners would all have equal understanding prior to executing the larger learning program.



TABLE 1: Four Ps of Microlearning

This table provides an example of a work-related situation where the type of microlearning could be applied. The first column is the type, the second column highlights four design considerations, the third column provides a contextualized example to those considerations, and the final column provides suggested measures to evaluate the success of the microlearning.

Microlearning Use	Design Considerations	Contextualized Example	Possible Measures
Performance	Learner	Managers	<ul style="list-style-type: none"> Audit evaluations completed by managers. Compare before and after evaluations. Compare those who used e-learning vs. those who did not.
	Content	Writing a constructive performance statement	
	Content access	Organization portal through SharePoint	
	Development	E-learning module with video, including voice-over slides and an introduction from the vice president of HR	
Persuasive	Learner	Warehouse shift workers	<ul style="list-style-type: none"> Compare accident reports prior to and after posting infographics. Prior to and after posting the infographic, quiz employees' content retention by using a survey that has several scenarios.
	Content	Maintaining a hazard-free work floor	
	Content access	Print/poster	
	Development	Infographic	
Post-instruction	Learner	All employees	<ul style="list-style-type: none"> Survey employees' comprehension of diversity and inclusion pre- and post-training. Give a short quiz at the end of each staged initiative for use in comparison and retention. Compare incidents associated with diversity and inclusion pre- and post-training
	Content	Diversity and inclusion	
	Content access	Staged communications with a link to content that is located on the organization's HR webpages	
	Development	Varied use of contextualized videos and animations	
Preparation	Learner	Faculty/staff	<ul style="list-style-type: none"> Conduct a pre-test. Use a rubric to evaluate demonstrated knowledge during workshop.
	Content	Mandated reporting (introduction prior to in-person workshop)	
	Content access	Organization's learning management system	
	Development	VideoScribe animation	

Successful Microlearning Examples

Many organizations have already had success with microlearning. For example, the ridesharing company Uber offers microlearning through the Duolingo app to drivers in Colombia, Brazil, and Mexico who want to draw in more riders. Drivers who have completed a certain number of English-language microlearning lessons are shown in the app when riders are seeking a driver who speaks English (Kolodny 2016). The May 2016 issue of HR Magazine mentions several companies, including furniture manufacturer Allsteel, that use microlearning. Allsteel's offerings include 10-minute webinars (created from content used in the original course) and emails to reinforce information acquired in longer training sessions. These refreshers on how to use a tool introduced in an earlier training help remind the learner to apply the knowledge on the job (Murphy 2016).

Study participants have seen a wide array of microlearning success in their organizations. Their examples can help other talent development professionals who are planning or designing microlearning for their own organizations:

“We put out small pieces as just-in-time performance support. We created a short podcast the sales team can listen to while driving to their next client. They can make their own playlist to prepare, based on their next client's situation.”

—**Shelly Wilds, Director of Design & Development, CDK Global (a provider of computing solutions to automobile and transportation dealers)**

“Our biggest impact is in electronic healthcare record training. We developed microlearning as a prerequisite for classroom training, which helped cut our classroom training by half. We also send out e-blasts with embedded instructional videos that are specifically application-level skills. It has worked nicely.”

—**Rebecca Baker, Director of Clinical Education and Development, PopHealthCare**

“We developed single-procedure mini-courses that allow staff to review clinical procedures as needed and offer continuing education units. They are wildly popular. People go through them in preparation for hands-on training or as refreshers.”

—**Michelle Gross, Manager of Staff Training and Development, University of Minnesota Physicians**

“People find microlearning explainer videos (between two and five minutes) energizing. We produce these when we launch a new service to internally evangelize it and let people learn about it in an informal and fun way.”

—**Bart Tkaczyk, Chief Executive and Learning and Capability Directorate,
ENERGIZERS (a provider of talent development consulting services)**

“We often use microlearning before a live technical training session. The microlearning sessions give all the details and the learners can go as deep as they want. The live training gives them time to practice their ideas and talk about the changes or products with their peers.”

—**Beth McGoldrick, Instructional Designer, RiverSource Life Insurance
Company**

“Microlearning is a great method for introducing new products and showing exactly how they are made. We can demonstrate the steps and ingredients for the recipe, which can be reviewed as many times as necessary before attempting hands-on practice.”

—**Kimberly Brastad, Director, Global Curriculum and Training, American
Dairy Queen Corporation**

Source: ATD Research. 2017. *Microlearning: Delivering Bite-Sized Knowledge*.
Alexandria, VA: ATD Press.

When to Use—and Not Use— Microlearning

Microlearning: Delivering Bite-Sized Knowledge reports that four in five respondents use microlearning at their organizations to reinforce or supplement formal training. Microlearning was also used as a just-in-time learning tool by 75 percent of participants. Just less than half of participants indicated that their organization used microlearning to replace formal training.

The ATD report also explores specific content areas where organizations plan to use microlearning. Not surprisingly, more than half (55 percent) plan to use it for performance support and leadership development. (See Figure 5 from the report for other content areas of planned use.)

“Taken together, these results show that organizations aren’t switching from traditional learning methods entirely; rather, they are supplementing traditional, formal learning with microlearning,” concludes the report.

Sharon Boller, president and chief product officer of Bottom-Line Performance, agrees. She notes in an ATD blog post that while there is no question that microlearning components can offer effective learning preparation or reinforcement, there are a few situations where you should explore more robust learning solutions.

For instance, according to Boller, you should avoid using microlearning when you need to build depth of knowledge or skill. “If you want people to be experts at something, they need time to build expertise,” says Boller. This requires relevant practice and feedback that’s not typically available through microlearning assets.

Likewise, microlearning isn’t your go-to option when you need to move people from novice to fluency on a specific topic or skill in a short period of time. Boller notes that deep industry or product knowledge is “difficult to learn in five minutes.” Again, people need practice and multiple exposures to build expertise.

Here are a few factors Boller says developers should consider as they decide whether and how to use microlearning.



- Will microlearning offer relevant practice and feedback, or is it just used to build awareness or reinforcement? “People need relevant practice—and feedback on performance—to build skills and apply knowledge to their work,” reminds Boller.
- Will your learners’ attention be drawn elsewhere? Don’t assume microlearning will eliminate multitasking and that other factors won’t still be competing for your learners’ time.
- Do you want people to build long-term retention of information, or just want them to locate information when they need it? “Reading something or even following the steps listed in a micro-lesson is not the same thing as learning. Design your solution accordingly,” advises Boller.

Select the Right Modality

So now that you've thought through how you want to leverage microlearning, you can start thinking about what modality is the best fit for your initiative. According to *Microlearning: Delivering Bite-Sized Knowledge*, self-paced e-learning, video, and visuals are the most common delivery methods (see **Figure 1**).

Elise Greene Margol offers more insight on the different microlearning modalities in the TD at Work “Microlearning to Boost Employee Engagement.” She notes that it's important

to select a modality that fits the content. You will need to consider when and how learners will access the asset. “The focus should be on applying the right medium to the right content in order to transfer the right skills at the right time,” Margol writes.

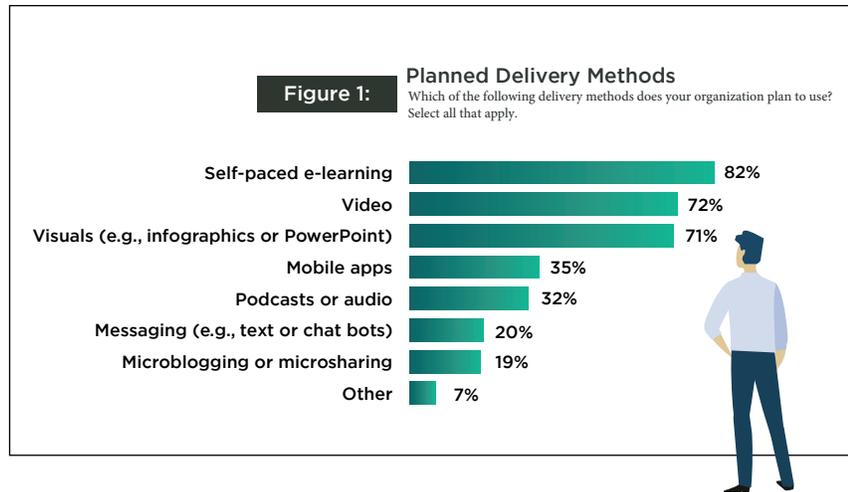
Ask yourself: Is the content best suited to an infographic? Perhaps a short video? Is a checklist best? Maybe a quick game? A short demo? Margol offers a few examples of how you can take advantage of media to achieve different outcomes:

Videos. Short (one- to three-minute) videos are the most requested learning format. Simply put, this is the way modern learners prefer to consume content. But to be effective, a video must be used for the right purpose and be both succinct and content rich. There are different types of videos you can use to create assets.

Infographics. Infographics are a great way to easily but powerfully communicate information. Use engaging and visually appealing images to highlight key points of a topic so that learners can quickly go through it. Infographics tell a story to a wide audience in a way that's easy for many people to understand. It's also simple for learners to review again if they forget a specific piece of information.

Mini-Modules. A mini-module is an e-learning course that is approximately five minutes in length and focuses on a specific topic or provides an opportunity for learners to practice and apply a specific skill or process. Using tactics such as simulations, interactive drag-and-drops, and games all help give the learner a chance to practice their knowledge and retain information.

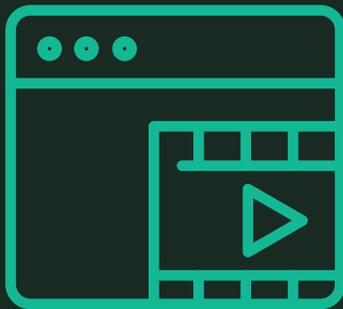
Try-Its. Similar to mini-modules, try-its typically include scenario-based content that requires learners to make choices about how to best respond. Learners receive immediate feedback, so they know in the moment whether they understand the concept.



Self-Paced Activities. To create more variety and enhance the learner’s experience, you might convert a facilitator-led session or group breakout activity into a self-paced activity. For example, direct instruction on terms and basic concepts may be repurposed into a scavenger hunt activity or Internet research.

Digital Job Aids. A digital job aid is a graphical representation of processes or solutions and may be developed as a static image or be made interactive to complement another asset, such as an animation. For example, a job aid could be used following the sales process to provide “how to” guidance or to offer help overcoming an objection.

Types of Videos



Live Videos

Live videos can be shot using a smartphone or basic video camera. They don’t have to be professionally produced. All learners really care about is that they can watch it in a short amount of time on their terms, when they’re available and motivated to watch it. Regardless of the tool used, live videos should be relatively short and focus on demonstrating how to perform a specific task, whether it be entering something in a system or giving someone constructive feedback. For example, have you seen the videos from “Delish”? Rather than simply providing a recipe, they include a video that literally shows you how to make the dish. It is quick and provides an enticing visual on exactly what to do.

Animations

More so than live video, animation offers the flexibility to show not only a process, but also the concepts behind that process. For example, you could demonstrate how a machine works from the viewer’s perspective, and then show what is happening on the inside. Or, if you think of a sales conversation, show not only the conversation, but also the customer’s thoughts during that conversation. Whereas video takes continuous motion and breaks it up into discrete frames, animation starts with independent pictures and puts them together to form the illusion of continuous motion.





VideoScribes

Have your kids ever used Khan Academy for math? Khan uses VideoScribes to teach math concepts. VideoScribes are whiteboard-style animations that can be developed rapidly and present content in a fun, concise manner. These are often used as an engaging way to tell a story.

For example, in one of our courses, we needed to show how an underwriter reviewed a loan the banker forwarded to him. VideoScribe enabled us to tell the story in a visual manner.

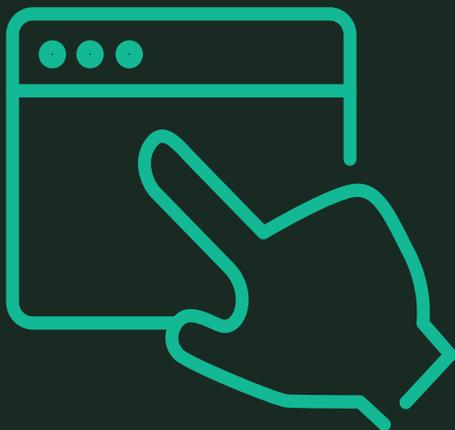
Regardless of the topic, these videos really should be no longer than 30-60 seconds and typically contain narration and music in addition to the onscreen graphics.

When to Use Video

Regardless of the type of video used, when is the best time to incorporate video into a microlibrary? Here are a few situations where they can be ideal:

You want to generate interest or excitement. Are you rolling out a new system or managing a large organizational change? Generate excitement by using animation to explain the benefits. A short video “selling” your audience on key concepts will help prime them for the training to come.

You want to put things in context. Videos can take an ambiguous concept and make it more tangible. For example, you might use them to demonstrate a sales conversation or to show the “day in the life” of a customer, highlighting the reasons the customer might need a product or service.



Source: Margol, E. 2017. “Microlearning to Boost Employee Engagement.” *TD at Work* (January). Alexandria, VA: ATD Press.

Recommendations

Ready to get started? Based on the findings in *Microlearning: Delivering Bite-Sized Knowledge* and interviews with subject matter experts, the following recommendations are offered:

Make Learning Only as Long as Needed

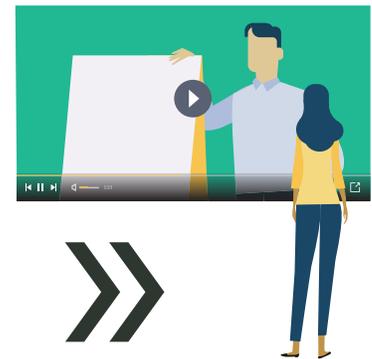
Instructional designers may feel pressure to make learning fit a specific timeframe, but learning programs should be only as long as is necessary to relay the most pertinent information, while cutting out any extraneous details. According to Margol, talent development professionals should be succinct when creating microlearning. “You have a short amount of time to convey essential messages. Make them clear, concise, and free of corporate jargon. Focus on the need-to-know over the nice-to-know,” she explains. The opposite is also true: Learning programs shouldn’t be made into short microlearning segments if the content requires more time.

Get Buy-In From Leaders

Ben Locwin, president of Healthcare Science Advisors and former director of global R&D learning at Biogen, points out that accountability starts with management. To hold learners accountable for using microlearning, it’s essential to get leaders and managers to emphasize its importance. When management and senior leaders highlight the significance of learning and training, other employees will follow suit. Thus, it’s an important step toward overcoming the barrier of accountability.

Identify Learning Objectives First

Before committing to a microlearning format, you should first determine the objectives. The identified objectives may not be best suited for the microlearning format, but rather traditional instructor-led classroom learning. For example, if employees need technical training, a hands-on learning program may be more appropriate. “Craft a specific, precise learning objective for each learning asset. Do this by isolating the skills. It may be tempting to put a lot of content and objectives into a bite-size asset, but this won’t work,” Margol advises. “Make sure the objective is behavior-based and explicitly states what skills or knowledge the learner should be able to attain or adopt.”



Knowledge Quizzes May Not Always Be the Right Choice

Experts who were interviewed suggest that when implementing microlearning, knowledge quizzes are not always appropriate. For instance, Locwin cautions, “Don’t force assessments for each microlearning.” Carla Torgerson, a senior instructional designer in healthcare and owner of Torgerson Consulting, also warns of using quizzes because they may end up frustrating the user. Since microlearning is supposed to take only a short amount of time, quizzes may be seen as an unnecessary barrier to just-in-time learning.

Consider Integrating Hands-On Activities and Simulations

Results reveal organizations that incorporate hands-on activities or simulations into microlearning activities are more likely to see their efforts be highly or very highly effective. These elements may be a more engaging choice than other options and can provide more variety for learning. The opportunity to practice and apply skills in a no-pressure environment can be valuable to learners, even if the activity is very brief.

Ready to Take a Deep Dive Into Microlearning?

Join 1,500 of your colleagues at ATD's TechKnowledge conference, February 6-8 in West Palm Beach, Florida. Learn from the industry's top experts, who will present these sessions focused on microlearning design, development, and strategy:

- **Micro, Mobile & Measured: Our Learning Beyond the Classroom Strategy** with Jason Moore
- **Microlearning on the GO!** with Shannon Tipton
- **Effective Microlearning? A Showcase of Examples and 10 Tips for How You Can Do It Too!** with Carla Torgerson

Learn more and register at www.td.org/about-TK2019.