GAMIFYING MICROLEARNING ...
WITHOUT THE GAMES

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AGILE MICROLEARNING

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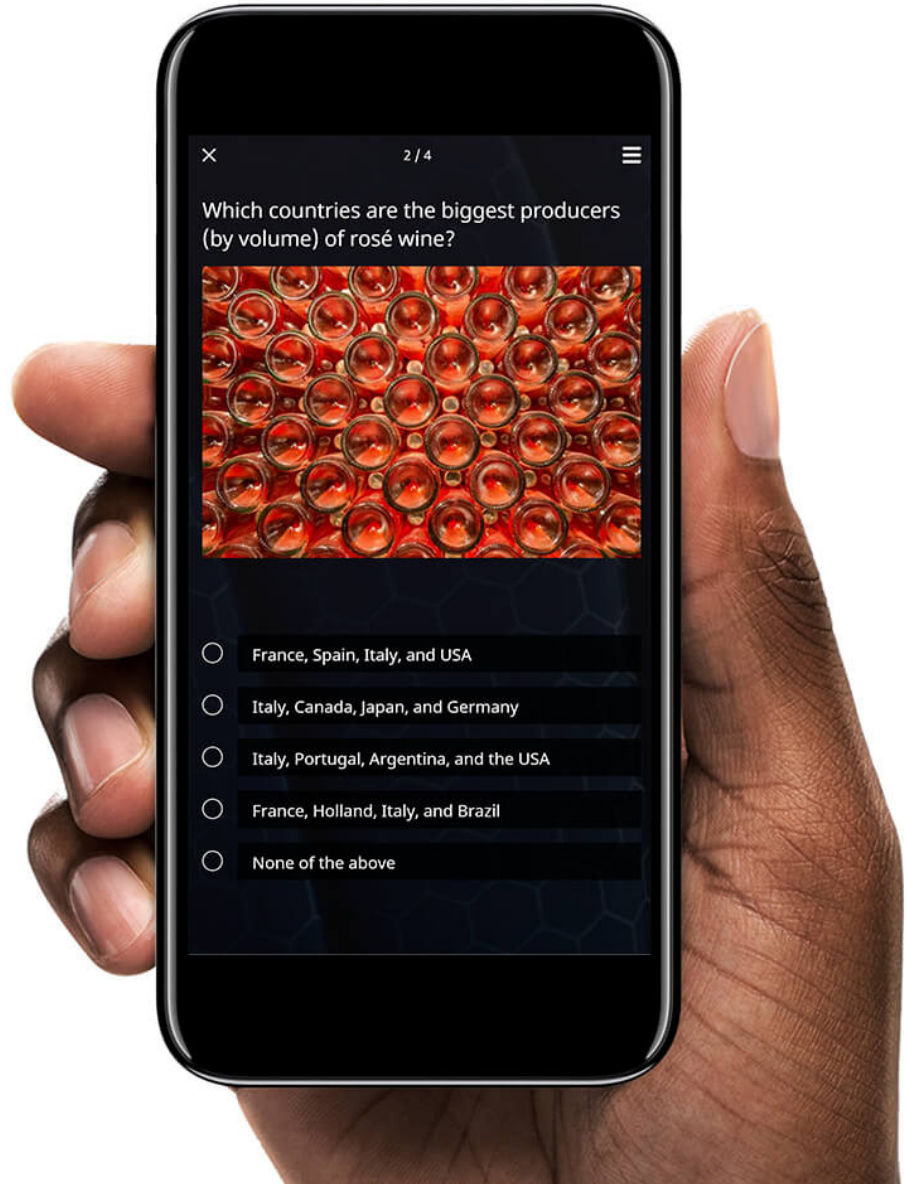
INTRODUCTION

Corporate training: It's an integral part of your employees' lives.

Consider this — at the end of their training do you want your employees to do something? Or stop doing something? Or do something *better*?

None of that will happen if the learners aren't engaged. If they're not paying attention, just clicking through, you won't see results.



ENTER … GAMIFICATION

Gamified eLearning is often seen as the answer to poor learner engagement.

A common L&D industry definition of gamification is "adding game mechanics or game elements to training content." These game mechanics commonly include:

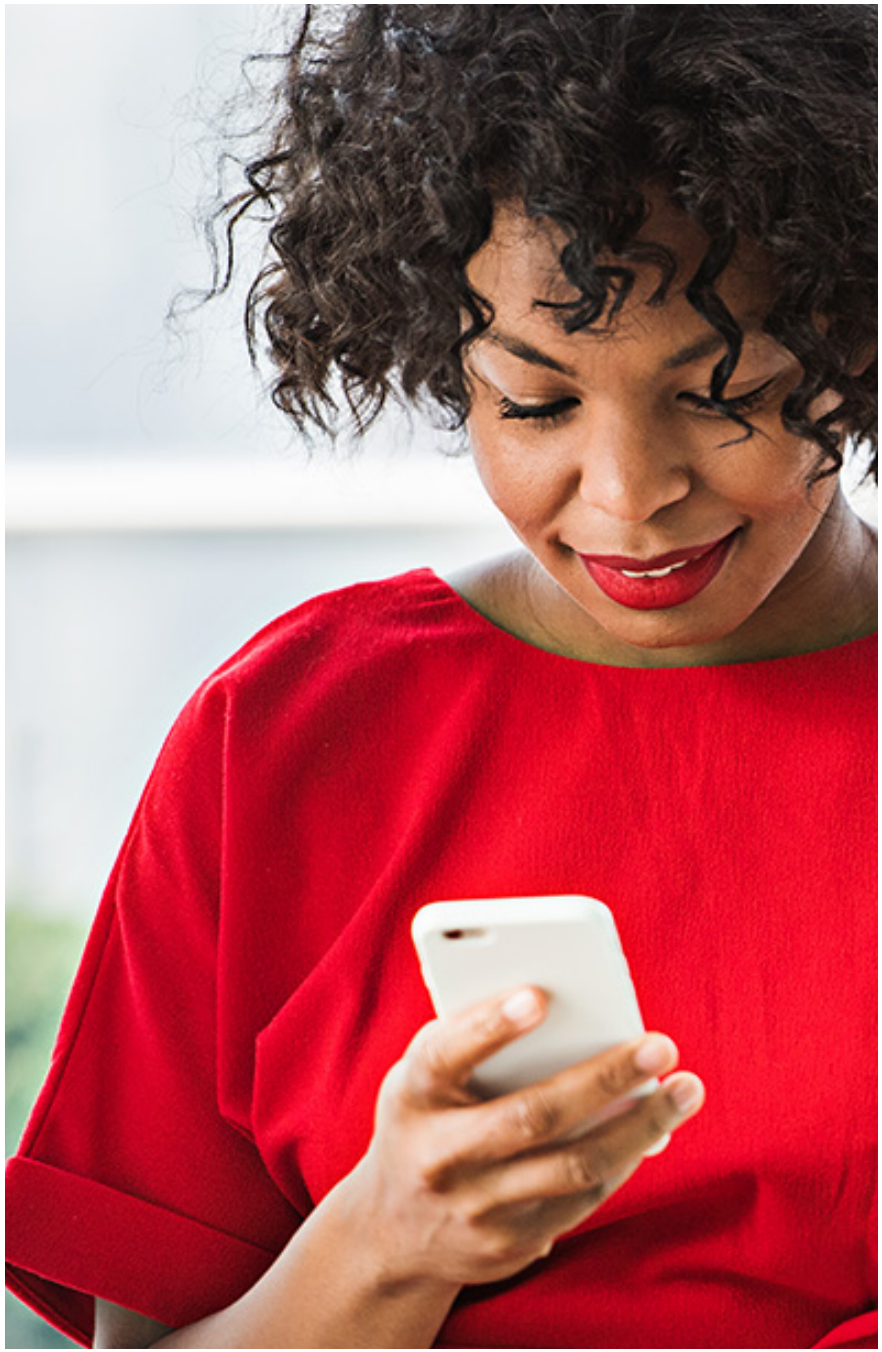
- Leaderboards to promote competition between employees or teams
- The ability to move up to new levels as a learner progresses
- Points and badges that learners can earn
- Prizes to high-performing teams or individuals

Researchers Michael Sailer *et al.* focus on a "self-deterministic" approach to learning in their paper "**How Gamification Motivates**," and contend that gamification taps into "three basic psychological and intrinsic needs." These are a need to feel and demonstrate competence, a need for autonomy and a need to belong or feel a sense of belonging to a social group.

The authors work from the assumption that "game design elements can deliberately be used to modify non-game contexts, such as working or learning environments, and thus can purposefully address motivational mechanisms."

> In using gamification, eLearning designers hope to motivate learners to engage more deeply with their training. The expectation is that more time and better focus on the training should equal more learning and longer retention and, therefore, better results.

At least, that's the theory. Sailer *et al.* point out that "many studies treat gamification as a uniform concept, while in practice, the specific designs and realizations of gamification environments can be quite diverse." The ways gamification is used vary widely, and the technique doesn't always work as the designers or developers hope it will.



ANOTHER NEW KID IN CLASS: MICROLEARNING

In response to many learners' time crunch — real or perceived — microlearning is taking on a growing role in corporate training.

Employees are busy. Many have taken on new tasks as resources are trimmed. They also need to contend with increasing automation and the constant demand for new or updated skills. They feel as if they have a lot to learn — and no time to spend on training.

Microlearning is a popular response. It is:

- Short, focused learning
- Delivered on demand
- Brief training moments that fit into the workflow
- Training or performance support that solves problems or closes knowledge gaps

Engaging microlearning is hot for a reason. Several reasons, in fact, including:

- It meets learners where they are — mobile-first microlearning is available on any device, anywhere
- It suits the way people learn — when you have a question, you Google an answer; you don't take a 45-minute course
- It offers focused, relevant information — microlearning answers a specific need in the moment

MICROLEARNING + GAMIFICATION = A PERFECT MATCH?

Some eLearning designers and developers think that the combination of microlearning and gamification is a perfect marriage: Drive engagement and train learners quickly, in a fun way, without disrupting their work flow. Improve results and increase productivity.

Done right, gamification + microlearning could indeed be a magical merger.

But "gamified microlearning" means very different things to different designers and developers — and many of them focus on the wrong elements.

LEARNERS AREN'T JUST PLAYING GAMES

Gamification is not the goal. Getting learners to play games is not the goal.

Engaging and motivating learners is the goal.

> It's not the points or the colorful badges that motivate learners. The thrill of moving puzzle pieces in an "interactive module" into place isn't what drives learner engagement. What motivates learners to engage is **relevance**: Relevant information. Relevant delivery format. Relevant user experience.

MEANINGLESS INTERACTION WASTES EVERYONE'S TIME.

Far too often, gamified learning, including microlearning, layers distracting and meaningless game elements on top of training content. This might require that people search for clues in a maze and then answer questions or have them solve a puzzle between activities.

Learners could be tasked with rearranging the steps of a procedure to create a picture when they're in the right order, or worse still, required to play an actual video game to surface quiz questions.

LEARNERS AREN'T JUST PLAYING GAMES

These "creative" additions do not enhance learning — yet they draw heavily on design and development resources.

Instead of wasting designers' and developers' time and energy creating games — and wasting learners' time playing meaningless games — focus on creating meaningful, engaging microlearning. Use the principles behind game mechanics to improve the content in ways that motivate learners and drive results.

To do so requires an understanding of motivation and, specifically, what motivates adult learners.

UNDERSTANDING INTRINSIC & EXTRINSIC MOTIVATION

Motivation can come from within — intrinsic motivation — or be driven by external factors. External or "extrinsic" motivation is harder to sustain and may not lead to effective learning and retention in the way that intrinsic motivation can.

Extrinsic motivators have to do with things outside the learner:

- Rewards or punishments, such as earning or losing points, leveling up or dropping down a level
- Public acclaim or approbation, like the "bragging rights" for being at the top of the leaderboard — or the embarrassment of being at the bottom
- Being seen as a team player, being well-liked
- Rewards given upon completion of a task or based on performance.

Intrinsic motivation comes from within the learner; these rewards are desired based on a person's goals or value system. They might include:

- Contributing something of value to the team, group or community
- Desire to surpass one's own previous performance
- Thirst for knowledge, curiosity or desire to improve oneself
- Honor, a respect for rules or conventions
- Desire to be stimulated or challenged

UNDERSTANDING INTRINSIC & EXTRINSIC MOTIVATION

INTRINSIC AND EXTRINSIC MOTIVATORS IN THE CORPORATE CONTEXT

Here's a look at some examples of intrinsic and extrinsic motivators that might apply to adults in a corporate context:

	Intrinsic	Extrinsic
Access to knowledge or performance support tools	✓	
Achieving a worthwhile or meaningful goal	✓	
Achieving a reward —a grade, a badge, points, a prize		✓
The possibility of an unexpected reward		✓
Contributing to improving a project or a product	✓	
Wanting to be perceived as a team player, wanting to be liked		✓

	Intrinsic	Extrinsic
Improving performance or effectiveness relative to own past performance	✓	
Improving performance or effectiveness relative to coworkers; "winning" or being the best		✓
Knowing enough to avoid making mistakes and do better work	✓	
Losing status or levels within a gamified framework as the result of making a mistake		✓
Feeling of completing a task, accomplishing a goal, finishing a project	✓	
Doing the "right" thing — following rules or norms, being ethical	✓	

DO GAME MECHANICS REALLY MOTIVATE & ENGAGE LEARNERS?

Gamification enthusiasts tout the ability of game mechanics to motivate and engage adult learners and improve results of corporate training. The reality is nuanced, with mixed results.

It's possible to pique learners' interest and hold their attention using principles of engagement and motivation — without flashy graphics and silly games. Building "non-game" mechanics into your content and your delivery approach is a more reliable way to increase learners' motivation, engagement and results than poorly implemented gamification.

WHAT MOTIVATES ADULT LEARNERS?

According to Karen Jarrett Thoms in "**They're Not Just Big Kids: Motivating Adult Learners**", adult learners focus on solving problems, rather than on content. Adult learning demands active participation and uses learners' past experience. Above all, it's a collaboration between learner and instructor — not simply content served indiscriminately to all learners who are then expected to unquestioningly "do their training."

Thoms lists several principles of adult learning, which include:

- Delivering content in bite-sized chunks
- Presenting only information that is "meaningful and practical"
- Presenting only one concept at a time
- Providing frequent, immediate feedback and summaries
- Facilitating self-directed and self-paced learning
- Recognizing that learning is a continuous process — not a one-time event
- Showing learners that the training is beneficial to them

"Adults are not impressed or motivated by gold stars," Thoms wrote. "They want a learning outcome which can be put to use immediately, in concrete, practical, and self-benefiting terms."

> Adult learners must understand why learning is useful in order to engage. They also "learn best when they use what they already know," integrating new information to extend their expertise, she wrote.

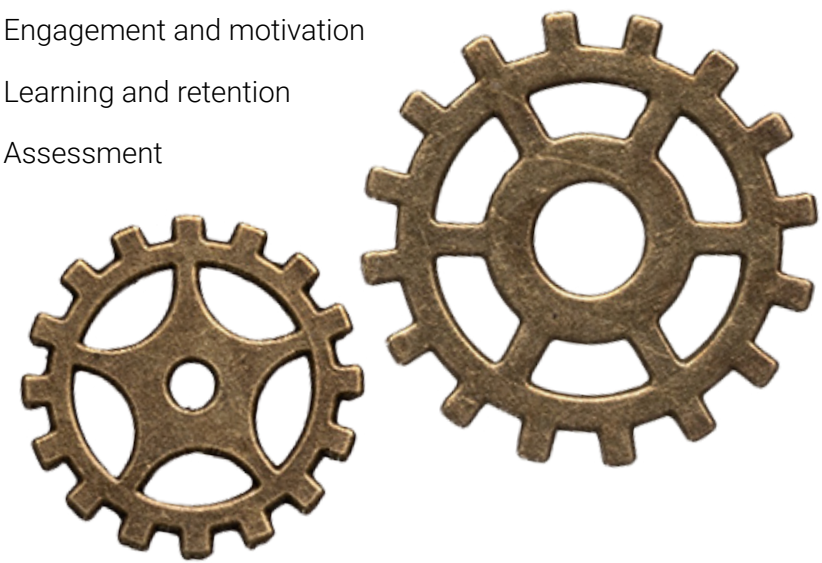
Finally, and essentially: Adults want control over their learning experiences — autonomy, self-pacing, flexibility in choosing a learning path.

THE MECHANICS OF ENGAGEMENT & MOTIVATION

Starting with Sailer *et al.'s* assumption that game design elements — mechanics — can be deliberately applied in a way that will address motivation, it's possible to examine common game mechanics and look at how to apply them successfully — as well as contexts where they would not increase motivation or engagement.

Our examination of game mechanics is based on three categories focused on the stages of the learner experience:

- Engagement and motivation
- Learning and retention
- Assessment



ENGAGEMENT & MOTIVATION MECHANICS

Engagement mechanics include measuring and marking progress, such as letting learners earn badges or levels. Gamification often relies on extrinsic motivators, like prizes and points, to motivate learners to keep playing.

That might work for a little while, but these rewards have to be more significant than achieving a certain level or finishing a module. If the points and badges lack any deeper meaning, the novelty soon wears off. Gauging learners' progress toward a meaningful goal, like improved mastery, appeals to the more compelling intrinsic motivation to improve and succeed.

Some eLearning fails to engage learners because it serves the same content to all learners, regardless of their prior knowledge and experience — or even whether they need to know specific content. To meet adult learners' need for autonomy, allow them to choose which content to consume and on what device — or implement adaptive training that delivers content targeted to each individual learner's needs and goals.

THE MECHANICS OF ENGAGEMENT & MOTIVATION

	What doesn't work	Instead, try
Motivation	Extrinsic	Intrinsic
Progress	Mark progress toward completion	Mark progress toward learning goal / increased mastery
Prior knowledge	Serve all learners the same content	Adapt content based on each learner's knowledge and performance
Badges	Mark completion	Mark achievement and mastery
Relevance	Serve all learners the same content	Target content by job role, learning or career goal or immediate need for knowledge
Autonomy	Directed path, required content and order of consumption	Self-directed
Rewards	Prize or payment for completion or passing	Unexpected and meaningful rewards
Device & format	Require learners to use specific device	Let learners choose
Accountability	Leaderboard — compete with others	Mastery board — compete against own past performance
User feedback	None or smile sheets only	Opportunity for learners to improve and add to content

THE MECHANICS OF ENGAGEMENT & MOTIVATION

LEARNING & RETENTION MECHANICS

Passive exposure to content doesn't work; learners need to interact with content. Unfortunately, though, anyone working in the eLearning field has seen interactive elements that are just layered on top of content — and have nothing to do with the learning.

> Activities that are part of training should be integral to the content. Relevant interactivity asks the learner to recall or apply the learning, not just move puzzle pieces around. For example, ask learners to apply new concepts and processes by presenting a mini-scenario that they might encounter on the job and asking learners to use what they've learned to choose the appropriate response.

Force-feeding learning doesn't work either. One-size-fits-all learning, where the same content is delivered to all learners and the learners cannot skip over or review content, is still the norm in too much corporate training.

It shows up in things like locked videos that learners can't pause, rewind or skip. If content is delivered annually with updates, bored learners may click through as fast as possible or their attention will wander as they're forced to sit through a video on content they already know. And they miss the little bits of new information scattered among the long redundant sections.

This rote exposure to content is not conducive to learning. Neither is one-time exposure. Learners need to see content multiple times, in different contexts, for it to truly stick.

	What doesn't work	Instead, try
Interactive elements	Meaningless	Meaningful; tied to content
Learning cadence	One-and-done, annual training	Continuous, through spaced repetition
Navigation and content / videos	Locked, no flexibility	Self-directed: Can jump around, skip through or repeat parts of videos
Content delivery	Fixed, same content to all learners	Adaptive with instructional scaffolding where needed
Sequence	Always present content, followed by quizzes or activities	Start with activities (or a self assessment) so learners identify their knowledge gaps; then push relevant content to fill those gaps
Difficulty	Easy	Challenging

THE MECHANICS OF ENGAGEMENT & MOTIVATION

ASSESSMENT MECHANICS

A final category of mechanics is those related to evaluating and assessing learning and progress. Too much eLearning makes a superficial nod toward assessment by giving learners a quiz at the end of the course. These quizzes typically offer 20 or 25 questions, covering a fraction of the content. Learners must get 75% or 80% right to pass. Failure can be devastating — loss of a license or credential, perhaps. But no worries; learners can often retake the quiz until they pass.

Assessment of this type doesn't measure whether learners understand the content; instead, it measures their ability to recall details a few minutes after completing training. It certainly doesn't give any indication of whether learners can apply the training or will retain it in a day or a week.

Many eLearning courses give learners little or no feedback beyond a quiz score. But formative feedback is a critical element in learning and retention. It provides learners with immediate information: Was their response correct? Why or why not?

Formative feedback and the freedom to explore content without fear of devastating consequences for "failing" frees learners to **learn**.

	What doesn't work	Instead, try
Psychology	Penalize failure	Free to fail and experiment
Coverage	Test on part of content	Assess mastery of all content
Feedback provided	Summative — only at the end (e.g., a grade)	Formative — provided throughout, letting learners know why a response was correct or incorrect
Measurement	Quiz score(s)	Identify and eliminate knowledge gaps, assess mastery

OTTOLEARN: AGILE MICROLEARNING THAT IS RELEVANT & ENGAGING

Don't choose gamification — or microlearning — just because you keep hearing these buzzwords or think they're a silver bullet, a magical solution to your training problems.

Try a unique and nontraditional approach to gamified microlearning: Neovation's OttoLearn **Agile Microlearning**. It's based on using motivation and engagement, learning and retention, and assessment mechanics in ways that are effective and meaningful.

In addition to effective use of game mechanics, identifying and appealing to each learner's key motivators, OttoLearn Agile Microlearning:

- Is founded in **cognitive science**, building on proven principles, including **spaced repetition**, **scaffolded learning**, and providing **formative feedback**
- Moves learners toward meaningful goals based on personalized learning paths, rewarding improved mastery — not completion
- Follows the adaptive training approach pioneered in the earliest days of computer-based learning, targeting content to learners based on their existing knowledge and their learning needs
- Maintains learner engagement by challenging learners with Activities that stretch them just beyond their current knowledge and cover content from a variety of perspectives
- Provides immediate feedback on every Activity, to reinforce learning and help learners understand what they know — and why they are making errors
- Uses a continuous training approach that, in a few minutes a day, ensures that learners cover all training content throughout the year — and practice it often enough to build long-term retention — but not so often that learners get bored and disengage
- Encourages self-directed learning on any mobile device, anywhere so can access training and practice when and where they want

CHOOSE EFFECTIVE GAMIFIED MICROLEARNING

OttoLearn will help you realize your desired training outcomes by building training that appeals to your learners, engages them with relevant and challenging content and fills their knowledge gaps. Talk to our microlearning experts today about a training and retention solution that will produce real, measurable outcomes.