

# YOUR GUIDE TO:

WHY GAMIFICATION  
WORKS



# GAMIFICATION: WHY DOES IT WORK?

Gamification is a rigorously researched approach to design that's backed by solid science. At its core, it's about taking the elements which make games so much fun and applying them to other less-fun contexts to make them fun as well.

As an idea, gamification just makes sense. If you make things more like a game then people will enjoy them and want to do them more.

Yet, the world is filled with gamification sceptics.

These are people who consider gamification to be an over-hyped gimmick. And to be fair to them, gamification's reputation has been sullied by businesses shoehorning game mechanics onto anything with a digital interface.

But the gulf that separates tacked-on gamification and holistic gamification is astronomical. People are right to suspect lazy gamification.

In the learning technologies industry, many platforms boast about some form of gamification functionality. But if you take a closer look at these platforms you'll see that the majority simply slop some points and badges on their platform and call it job done.

If gamification is going to drive engagement then it needs to be built into the core of a product. If it is, then it acts like rocket fuel for engagement.

But what is it about gamification that fuels such pure, unadulterated engagement?

Well, the answer is a complex one and it starts with the brain.

## The Neuroscience

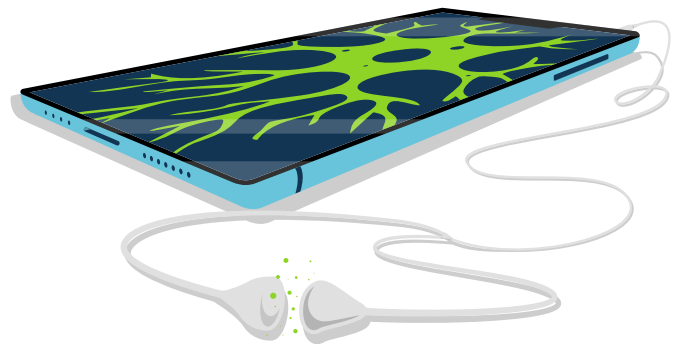
Research<sup>1</sup> has shown that when gamification is done well, neurotransmitters are released. Neurotransmitters are chemicals that your brain uses to send signals.

When it comes to gamification, there are five you need to know about:

### 1: Dopamine

Learning associations are vital to an effective training programme. They help learners make sense of complicated information by relating it to the real world. Dopamine is the chemical driving force of learning associations<sup>2</sup> and your brain releases loads of it whenever you're surprised. This is why everyone loves dramatic plot twists. Games use them all the time to thrill their audience and make the game more memorable.

If you want to send a torrent of dopamine coursing through your learners' brains then astound them with gamification features from badges to streaks. A surprise reward is a sure-fire dopamine release.



### 2: Oxytocin

Thanks to oxytocin we can forge connections with everyone we meet<sup>3</sup> – and they don't even have to be real people. That's why we love stories so much<sup>4</sup> and it's why video games love a rich narrative. Oxytocin helps us develop relationships with the characters and feel involved in the plot.

Gamification involves creating a narrative around the learning activity that describes why the task is relevant to the learner. According to University of Reading researchers, attention spans are affected by the subject's emotional connection with an activity.

"We found that participants' attention is affected by emotion and priority, such that they pay more attention to particularly vivid information or details that are highly relevant to them, but their retention of low-priority information is impaired," -Michiko Sakaki

This is why gamers can play games for such lengthy periods of time - they feel emotionally invested in the game. This is because one of the key components of a compelling game is a good story. People tend to remember stories better than lists of unconnected facts. This isn't just a matter of preference; it's a physiological imperative.

When we are engaged in a strong narrative, the brain releases oxytocin. As a result, when the brain receives information presented as a story, it recognises it as being more valid.

### 3: Serotonin

Serotonin levels are the difference between feeling anxious and unhappy or balanced and content. Our serotonin levels are affected by how important we feel.<sup>5</sup>

Part of the reason people love gaming so much is that it gives them the chance to feel significant. The game lets you do the impossible and be someone who changes the world!

You can do the same thing for your learners if you create a sense of epic meaning in your training! Epic meaning is a game-mechanic which positions the gamer at the very centre of world events.

Slathering your training with epic meaning will help learners understand their own significance. This releases serotonin meaning your training will help learners feel good.

Serotonin release is also triggered by remembering past successes.<sup>6</sup> The badge cabinet of a gamified learning management system lets learners get a serotonin rush on demand whenever they look at the rewards they have earned.



### 4: Endorphins

Whenever you achieve something you didn't think possible, you feel euphoric. That incredible feeling comes from a release of endorphins<sup>7</sup>.

The thrill and excitement of playing a game is the result of endorphins being released. Endorphins are the body's natural painkiller, but they can also lower stress and anxiety levels. They, combined with other neurotransmitters, this helps create an ideal environment for focused learning<sup>8</sup>.

Endorphins give you the strength to power through challenges and they reward you when you finish them. This is why most games come with a 'hard mode', their developers know you want to be challenged!

Without a challenge, there's no achievement in their completion and it saps all the fun out of the game. Don't make your training too easy – you'll stop your learners feeling like they've achieved something. Instead, challenge your learners and make them wrestle for victory!

Points are the perfect way to reinforce a learner's success. If a task was easy then a learner only gets a few points... But if a task was more challenging then the number of points should reflect this. A sure fire way to release waves of endorphins!

### 5: Cortisol

Cortisol is known as the stress hormone and it controls the body's reaction to stressful situations. When it comes to learning, high levels of cortisol force the brain into survival mode, distracting from the learning in order to deal with the stress. Cortisol is the reason so many people perform poorly in exams!

Results of a Texas A&M International University study<sup>9</sup> showed that "games reduce depression and hostile feelings in players through mood management." This means that you can use game features to lower your learners stress levels and feel more at ease whilst learning - helping them retain more information.

## Gamification And The Brain

### The Hippocampus And Gamification

The hippocampus is an area in the lower section of the brain which is largely responsible for knowledge recall. During learning, a strong hippocampal activation makes the content easier to remember and recall<sup>10</sup>. In clinical tests, game play has been shown to stimulate these conditions.

"Identifying a direct connection between the stimulation of neural circuits and game play is a key step in unlocking the potential for game-based tools to inspire positive behavior and improve health" Brian Knutson, associate professor of psychology and neuroscience at Stanford University.

### Playing Games Keeps The Brain Fit

Studies have shown that gameplay can improve brain functions. In a study conducted by BBC's Horizon<sup>11</sup>, a test group of older subjects played a popular racing game for 15 hours over 5 weeks. When they were evaluated after that period, their memory and attention span scores had improved by around 30%.

This shows that game play and game mechanics are an effective tool to ready the brain for learning!

### Gamification Helps Deal With Cognitive Overload

The brain can only handle a finite amount of information. If the cognitive load is too great, the learner could miss information, resulting in incomplete training. One way that gamification can deal with cognitive load<sup>12</sup> is to present the learning in a more game-like, challenge-based format. Along with the other neurological benefits of gamification, this approach helps to chunk the learning into smaller pieces that are easier to retain.

## Games Teach Work Skills

The workforce is filled with people who grew up playing complex video games that require a lot of intricate coordination. By commanding a Roman army to victory or managing the facilities of a virtual city, players can gain skills like resource management and prioritisation.

“These young people may be better equipped to switch between tasks easily, adapt to new information, and modify their strategy as new input comes in.” – Judy Willis, M.D., American Academy of Neurology

With so many suggesting that gaming and gamification are a waste of time, the research suggests the complete opposite. The skills you learn in a game are entirely transferable to real life.

### What Does This Mean?

We’ve seen that gamification releases a cocktail of neurotransmitters that leave learners feeling great and wanting more! But what happens when you take the learning out of the laboratory? Let’s take a look at what the research says about gamification in the workplace:

#### 1: It’s All Positive

A research paper<sup>13</sup> examined 24 peer-reviewed research papers which analysed gamification. According to this paper, **every study that looked at gamification in a learning context found that it had positive outcomes.** Most notably: increased motivation, engagement, and enjoyment.

#### 2: Motivation Increases

When learners undertake gamified learning, **it increases their motivation to return**<sup>14</sup>. If you want your learners to continue growing and become better at what they do, learning can’t be a one-off occasion. Instead, they need to return time and time again. Gamifying your training helps ensure that learners keep coming back!

#### 3: An Increase In Grades

Research by the University of Lisbon<sup>15</sup> found that a fully gamified solution not only saw an increase in participation and engagement, but also saw the **grades of participants increasing.**

If your learners’ grades are improving, then their understanding of the content must be improving too. The better your learners understand your training, then the more likely they are to recall what they learned and apply it in the workplace

#### 4: Engagement

**When learning is gamified it’s more enjoyable for learners**<sup>16</sup>. Studies have found that this leads to increased **engagement with content**<sup>17</sup>. This means higher levels of knowledge retention, increased behaviour change and happier learners! Gamification transforms dull online learning into something irresistible.



## GAMIFICATION CASE STUDY: GAME

GAME is the leading specialist retailer of video games in the UK and Spain, holding a market share of over 30% in each country. They operate more than 320 stores and employ more than 3,700 staff throughout the UK.

GAME had made use of eLearning in the past, but without the success they wanted. It tended to start well but learners would soon become disillusioned. Research revealed that the biggest need for the programme would be an engaging platform. GAME teamed up with Growth Engineering to create GAME Learning Zone, a learning management system packed with social and gamification features to engage learners.

GAME Learning Zone does everything you’d expect of an LMS, such as letting you manage learners and host

interactive training content. But what sets it apart is its focus on engagement. As a video games retailer, the world-leading game mechanics on the Academy LMS seemed a perfect fit for GAME’s staff and brand. Let’s face it, when it comes to games, GAME know what they’re talking about.

#### The results:

In just four months GAME’s 3,600 learners logged in more than 40,500 times. This is nearly 12 logins per user, proving they’re engaged and keep coming back for more.

In the same period, GAME learners completed more than 61,000 pieces of content. This means that each learner completed 17 pieces of content. This shows that learners are deeply engaged with the content available on the Platform.

# WHO ARE WE?



Growth Engineering are research-backed learning experts. We are laser-focused on creating engaging online training solutions that result in meaningful business impact.

Gamification is our number one tool to drive meaningful business impact. That's why no other platform on the market comes close to the level of gamification you'll find on The Academy LMS, The Knowledge Arcade and Genie, our game-based authoring tool.

If you want to unleash the power of gamification in your organisation, click below to get in touch.

GET IN TOUCH



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