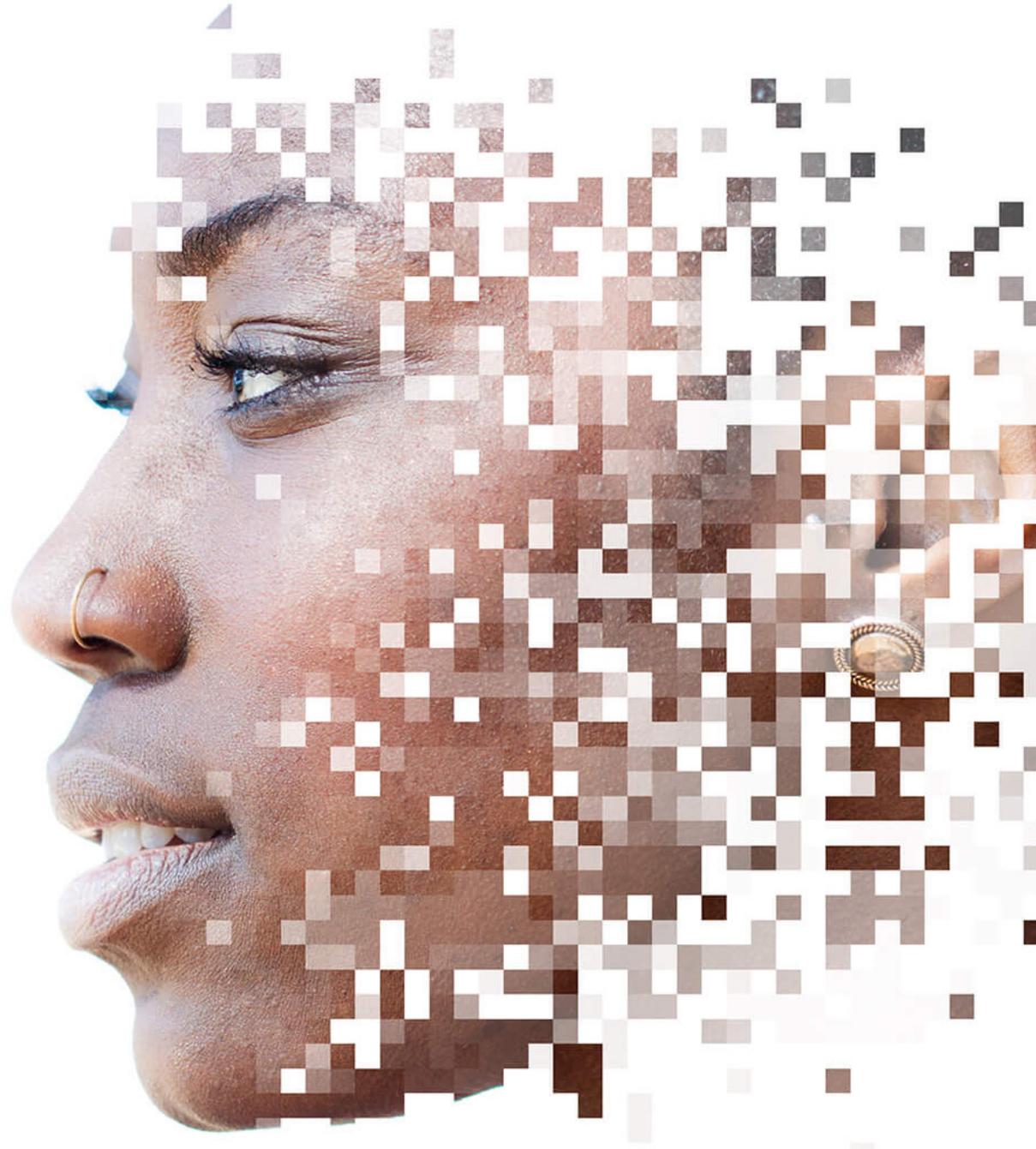


# Demystifying Gamification



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# FOREWORD

The term “gamification” has been bantered around for over a decade and it seems like everywhere you turn, someone is gamifying some type of learning experience. Sometimes it is done well and the learners have a fantastic and meaningful experience. Sometimes it is not done so well and the results are less than stellar.

This is because, on the surface, gamification seems simple and easy. In fact, it seems too easy, just throw a few points on a quiz, add a badge for logging into a system, and create levels for the learner to climb and voilà, instant success. I can guarantee you, if that’s where you stop with gamification, then the results will fail to meet your expectations.

On the other hand, if you look below the surface of gamification and move aside some of the shiny objects and glittery game elements, you’ll find the ideas of engagement, autonomy, meaning, and motivation carefully layered into the concept. The idea of gamification isn’t to merely play games; the idea of gamification is to leverage game elements to create engaging, meaningful experiences that impact a learner’s knowledge level, ability to perform a task, and overall job performance.

I’ve seen firsthand how gamification can make a difference in the field of learning. Think about why people play games in the first place: It is not merely for points or badges; it’s for the sense of engagement, the immediate feedback, the feeling of accomplishment, and the success of striving against a challenge and overcoming it.

In a world where there are constant calls for our attention, a world of distractions at our fingertips and the need to learn and apply knowledge faster than ever, gamification fits. Intelligent application of the concepts of gamification results in effective, targeted learning. As scientists continue

to discover more and more about how humans process information, make decisions, and alter their behavior, we learn that traditional hours-long eLearning modules with walls of static text and no interactivity are not adequate.

Understanding the nuances and subtleties of gamification is an important first step in properly and effectively implementing gamification into your organization. Good instructional design, good learning design requires one to pay attention to the little details, the one or two pieces of research that make the difference between success and a mediocre implementation or even failure. Captured here are solid, evidence-based approaches to the intelligent application of gamification.

Your organization can benefit from gamification when implemented properly. Use the concepts, ideas, and approaches you discover in this paper to gain a head start on properly implementing gamification. As they say, “Knowledge is Power,” and knowing the right application of game elements to your learning design provides you with the power to move learning and your organization forward to the next level and beyond.

Wishing you the best of luck on your gamification journey,

Dr. Karl Kapp



Karl M. Kapp, Ed.D., is a scholar and a leading expert on the convergence of learning, technology, and gamification. A professor of instructional technology at Bloomsburg University in Bloomsburg, PA, Karl teaches graduate-level courses including "Instructional Game Design."

Karl’s latest book, *The Gamification of Learning and Instruction*, explores how leveraging elements of online games can increase learning, retention, and application.

# DEMISTIFYING GAMIFICATION: EXECUTIVE SUMMARY

Gamification is the process of layering game elements, such as characters, points, challenges, and a rule structure, on top of training content. It's usually done with the goal of increasing learner engagement and improving training outcomes.

To accomplish this, gamification must be done “right” — done in a way that motivates and energizes learners, rather than insulting or annoying them. This paper explores the ways games can motivate players and describes ways to incorporate those strategies into online training.

It also delves into choosing the optimal approach to resolving some types of training challenges with gamification. For example:

- Consider a learning game, as opposed to gamified content, when the training is intended to build skills like problem-solving, communication, and leadership.
- Gamified content is a great choice for training that is heavy on knowledge-transfer, such as when learners need to remember facts, details, or procedures.

Successful gamification taps into learners’ intrinsic motivators, which include a drive to improve one’s skills or do a better job or a desire to play a beneficial role on a team. Some successful gamification also taps into extrinsic motivators, such as a desire to win a prize or to outperform peers. Gamification that relies only on these extrinsic motivators may not interest less-competitive learners or may lose its appeal once the novelty wears off.

 Read on to demystify the topic of gamification, including a deep dive into motivation, how learners’ personalities affect their response to gamified content, and what it means to gamify content versus gamifying the structure of training.

Use game elements effectively	
To accomplish...	Try...
Behavior change	<p><b>Reward behaviors that will lead to the desired business outcome — not the actual outcome.</b></p> <p>If the goal is to increase sales, for example, gamified training for sales professionals should reward a specific behavior that increases sales, such as follow-up calls to prospects — not the actual sales numbers.</p>
Better performance on training	<p><b>Build formative feedback into the training module.</b></p> <p>This lets learners know how they are doing, guides and supports their progress, and coaches them to better performance.</p>
Goal-setting, moving learners through increasingly difficult challenges	<p><b>Use elements like points and levels strategically.</b></p> <p>Rather than rewarding time spent on training, reward learners’ correct application of training knowledge in interactivities. To move learners through a series of goals, make access to advanced content contingent on correct responses to questions and scenarios.</p>
Sustained learner engagement with comprehensive training or a series of related microlearning units	<p><b>Use narrative storytelling.</b></p> <p>Build a long module or a series of related microlearning units around a cast of characters faced with situations your learners might see on the job. They’ll keep engaging to find out what happens.</p>

# INTRODUCTION

For over a decade, the term “gamification” has been used to describe a variety of ways that psychological concepts, motivational properties, and other elements taken from games have been applied in other contexts, including learning and training. In the eLearning, or online education and professional training industry, gamification is ubiquitous.

The catch is, different vendors use the term in different ways — and their products vary in both their effectiveness and appeal to the targeted learners. This paper examines definitions of gamification as well as the theories underlying this trend — and focuses on applying gamification to the training of adult learners for professional purposes. We will also explore how the way that gamification is understood and applied determines its effectiveness.

Let’s start by defining key terms.

## DEFINING GAMES & GAMIFICATION

A key distinction in the discussion of learning games and gamification is the difference between them:

- A learning game is a game created using learning content; the game and the content are inseparable.
- In contrast, gamification applies features of games, known as game elements or game mechanics, to learning content.

This simple and widely cited definition of gamification from [Deterding et al](#) (2011) captures the essence: “The use of game design elements in non-game contexts.”

[Landers and Callan](#) (2011) make the same distinction: “Gamification does not involve the creation of a game for learning purposes. Instead, it takes the motivational properties of games and layers them on top of other learning activities, integrating the human desire to communicate and share accomplishment with goal-setting to direct the attention of learners and motivate them to action.”

And Professor Karl Kapp, an expert on learning games and gamification, defines gamification as “using game-based mechanics, aesthetics, and game thinking to engage people, motivate action, promote learning, and solve problems, in both a 2012 book, *The Gamification of Learning and Instruction*, and in this [LinkedIn post](#).”

# DEFINING GAMES & GAMIFICATION

## Games have rules & goals

Deterding *et al.* further define games and gaming as distinct from free-form play as “characterized by explicit rule systems and the competition or strife of actors in those systems towards discrete goals or outcomes.”

Gaming entails a different mindset than informal play, one more focused on goals and rules. There are dozens of kinds of games that last anywhere from moments to days, involve one, a few, or thousands of players, and exist in pretty much any context imaginable. Yet despite the differences among games, people know when they are playing a game.

According to author and games expert Jane McGonigal (2011), “All games share four defining traits: a goal, rules, a feedback system, and voluntary participation.” McGonigal’s book *Reality Is Broken* explains:

- The goal is a specific outcome that provides players with a sense of purpose.
- The rules place limitations — unnecessary obstacles — on how players can achieve the goal.
- The feedback system, whether points, levels, or an event that signals the end of the game, lets players know how close they are to achieving the goal.
- Voluntary participation means that all players have knowingly and willingly accepted the goal, rules, and feedback system.



## Game elements

When used in a learning or training context, gaming can consist of serious learning games, which are designed as games albeit with one or more learning objectives baked into the goals and outcomes of play; it can also take the form of gamification, which layers **game elements** on top of learning content.

These elements include:

- Characters or avatars, used to represent players or teams
- A game environment, whether physical (e.g., board game) or virtual
- Interaction with the environment, with other players, or with both
- A challenge or goal players strive toward
- A narrative framework
- Increasingly difficult challenges or a mix of short- and longer-term goals
- A defined outcome — players know what it means to “win”
- Feedback on players’ progress
- A rule structure that is explicit and enforced
- Ranks and levels, the ability to move up or down based on actions during play
- A way to communicate rank, points, etc., such as leaderboards
- Points or other rewards
- Competition or collaboration
- Time pressure



## WHY USE GAMIFICATION?

The primary reason companies or educators turn to gamification is that they want to improve learner engagement. Game elements can entice learners to spend more time with training content, foster competition — which can be a benefit or a downside — encourage cooperation or collaboration, and increase learners' motivation.

Researchers [Blohm and Leimeister](#) (2013) incorporate this reasoning into their definition of gamification: “Enriching products, services, and information systems with game-designed elements in order to positively influence motivation, productivity, and behavior of users.”

When talking about gamification of online products, services, or training, they reference the creators' making “use of the possibilities of IT to develop incentive concepts, which continually engage users in using products, services, and information systems.”

### Games tap into motivation & emotions

McGonigal says that “Games make us happy because they are hard work that we choose for ourselves, and it turns out that almost nothing makes us happier than good, hard work. ... All of the neurological and physiological systems that underlie happiness — our attention systems, our reward center, our motivation systems, our emotion and memory centers — are fully activated by gameplay.”

Too often, our actual work doesn't provide that boost, that happiness, she wrote. We may be doing it because we have to — or the problem may be that our work is not challenging; it's boring or we feel unappreciated. It's not suited to our strengths, or we lack opportunities to control the workflow or set our own goals.

“Hard work that someone else requires us to do just doesn't activate our happiness systems in the same way. It all too often doesn't absorb us, doesn't make us optimistic, and doesn't invigorate us,” McGonigal wrote — unless we get into a state of **flow**.

McGonigal describes the concept of flow, originally defined by Hungarian-American psychologist Mihaly Csikszentmihalyi, as a state of heightened functioning that occurs frequently in “challenging endeavors with a clear goal, well-established rules for action, and the potential for increased difficulty and improvement over time” — such as games.

Video games in particular, McGonigal wrote, offer the properties of “potentially flow-inducing activities — a goal, obstacles, increasing challenge, and voluntary participation” — and add features like direct input, adaptive difficulty adjustment, and instant feedback. The result is a “faster, tighter feedback loop” that is highly rewarding and therefore engaging to players. The point is to keep people playing for as long as possible — and it works.



## WHY USE GAMIFICATION?

### Choosing a design approach: Serious learning game or gamification

When choosing to incorporate game play or game elements into learning, instructional designers must make a choice early on: Build a learning game or add game elements to learning content (gamification).

Landers and Callan argue that immersive learning games are “most appropriate when training and educational objectives **require** this immersion” (emphasis in original).

Situations where learners need to problem-solve, or where training is intended to foster innovation, communication, or leadership, Kapp says, are good candidates for learning games. So are situations where learners are exposed to non-linear content or need practice in critical thinking, decision making, and determining priorities and resource allocation. “Forcing learners to make trade-offs and key decisions is one thing learning games do much better than linear instruction,” Kapp said.

But, as Landers and Callan point out, most education and training is focused on knowledge transfer, not high-stakes skills acquisition, and learners are expected to master — recognize and memorize — facts, details, and procedures. In these cases, gamification is a better choice to “support the learning process,” they wrote.



**All of the neurological and physiological systems that underlie happiness — our attention systems, our reward center, our motivation systems, our emotion and memory centers — are fully activated by gameplay.**

– Jane McGonigal

# GAMIFICATION & MOTIVATION: WHAT'S THE CONNECTION?

Motivation leads people to do something — to engage or act.

The goal of many learning and development (L&D) professionals is to increase the motivation of learners to engage with training content more often and to spend more time interacting with the content.

People are motivated to do different things and for different reasons, and gamification is just one approach that L&D uses to try to **increase** motivation and engagement.

## Types of motivation

Motivation might be intrinsic or extrinsic. It might occur at different levels and, according to [Ryan and Deci](#) (2000a), with different orientations or underlying goals and attitudes.

- Intrinsic motivation comes from within. An intrinsically motivated learner engages with learning content because doing so is inherently interesting or enjoyable.
- Extrinsic motivation leads to a “separable outcome” in Ryan and Deci’s words; it has to do with reasons or goals that come from outside the learner.

In education and training, both types of motivation are critically important. “Because intrinsic motivation results in high-quality learning and creativity, it is especially important to detail the factors and forces that engender versus undermine it,” according to Ryan and Deci.

In their work on self-determination theory, they — and other researchers — have found that not all extrinsic motivation functions in the same way: “Students can perform extrinsically motivated actions with resentment, resistance, and disinterest or, alternatively, with an attitude of willingness that reflects an inner acceptance of the value or utility of a task.”

Thus on some levels, extrinsic motivation can “represent active, agentic states” where learners internalize a goal or the value of a task. This level of extrinsic motivation functions similarly to intrinsic motivation in terms of learner behavior and results, and thus is a critical consideration in gamification and other learning design.

Further complicating the task of motivating large numbers of individual learners to engage with training is the broad range of interests and aptitudes any learner brings to training. “Although, in one sense, intrinsic motivation exists within individuals, in another sense intrinsic motivation exists in the relation between individuals and activities. People are intrinsically motivated for some activities and not others, and not everyone is intrinsically motivated for any particular task,” Ryan and Deci wrote.

There’s also the activities and content to consider. Extrinsic motivation is essential in learning contexts, the researchers wrote, because “Many of the tasks that educators want their students to perform are not inherently interesting or enjoyable.”



**People are intrinsically motivated for some activities and not others, and not everyone is intrinsically motivated for any particular task.**

– Richard Ryan and Edward Deci

# GAMIFICATION & MOTIVATION: WHAT'S THE CONNECTION?

## Rewards and motivation

At its most simplistic, gamification approaches use rewards to entice learners to continue engaging with learning content and activities. These might include points, higher “levels,” or the opportunity to earn badges. Gamification might also include other game elements, like time pressure, the “threat” of losing status or points, and competition to attempt to increase motivation.

These external rewards and threats can and do motivate some learners; they might de-motivate others: “Virtually every type of expected tangible reward made contingent on task performance does, in fact, undermine intrinsic motivation” — as do threats, deadlines, directives, and competition pressure. These are all seen by some learners as “controllers of their behavior,” according to Ryan and Deci.

And, Kapp said, the same situation motivates differently positioned learners differently: “The second person on the leaderboard is highly motivated, the tenth person is kind of motivated — and the hundredth person is demotivated.”

Finally, the size of the group can change learners’ motivation level, according to Kapp. “The smaller a leaderboard, the more likely someone is to engage because the field is smaller and they feel they have more of a chance of being successful.”

## Levels of extrinsic motivation

On the flipside, the ability to make choices and engage in self-direction, by providing a sense of autonomy, appear to **enhance** intrinsic motivation, according to Ryan and Deci. Extrinsic motivators can also provide a sense of autonomy: Learners who complete training only because they will lose their license or certification, with negative impact on their continued employment, are working under threat, a classic external motivator. However, the learner who completes required continuing education credits **and** who sees the coursework as a valuable way to advance their chosen career has a greater sense of autonomy and buy-in to the training. Though both are extrinsically motivated, the learner with buy-in is likely to feel greater commitment.

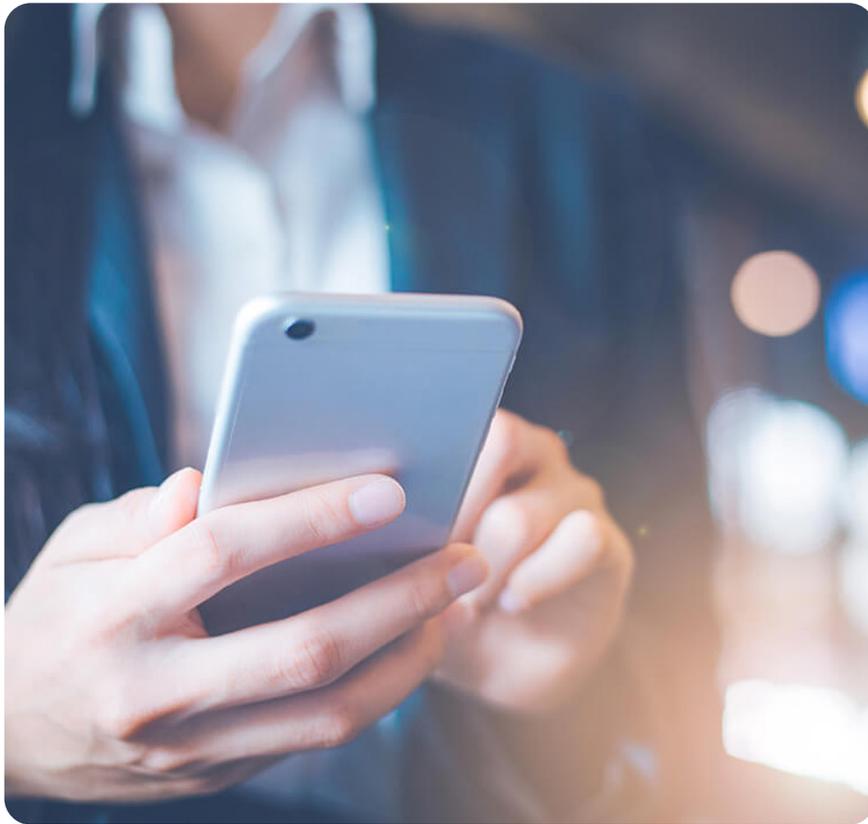
For gamification to achieve the goals of deeper and longer-lasting learner engagement, then, L&D professionals must go beyond novel or “fun” game elements and find ways to trigger learners’ identification with and internalization of learning goals or requirements. To accomplish this, gamification has to provide a means of accessing essential intrinsic human needs or motivators.



# GAMIFICATION & MOTIVATION: WHAT'S THE CONNECTION?

## Self-determination theory

Since motivation is a key goal of gamification, an understanding of self-determination theory is helpful. This theory focuses on autonomy and self-directed behaviors and examines not only **what** motivates people but also the conditions that foster self-determination. It also examines “what kind of motivation is being exhibited at any given time” (Ryan and Deci, 2000b).



The ability to make choices and opportunities for self-direction enhance intrinsic motivation, as do feelings of competence that are accompanied by a sense of autonomy. Reliance on extrinsic rewards, the feeling of being controlled, and the experience of diminished autonomy undermine intrinsic motivation, say Ryan and Deci.

They further emphasize, “It is critical to remember, however, that people will be intrinsically motivated only for activities that hold intrinsic interest for them, activities that have the appeal of novelty, challenge, or aesthetic value.”

## Intrinsic motivators and games

Essential intrinsic rewards or motivators fall into four categories, according to Jane McGonigal in *Reality Is Broken*:

- **Satisfying work** — demanding activities with the possibility to see the direct impact of our work, clear goals, and actionable steps
- **Possibility of success** — people want to feel powerful, aspire to something, feel like we are making progress, and be able to show others that we’re good at something
- **Social connection** — sharing experience, building bonds, spending time with people we care about
- **Meaning** — we want to be part of something bigger than ourselves, feel wonder and curiosity, belong and contribute to something that has lasting significance

“Good games,” McGonigal wrote, “help us experience the four things we crave most — and they do it safely, cheaply, and reliably.”

She’s talking about immersive online games — but well-crafted gamification can tap into the same motivators and feed the same basic human needs and drives.

# HOW DOES GAMIFICATION AFFECT LEARNERS?

Learners will respond to gamification differently, depending on their motivations and their degree of introversion or extroversion.

Blohm and Leimeister refer to the disparate effects of game mechanics on users as “game dynamics,” and attribute varied motives to each. For instance, scoring systems that enable users to accumulate points or badges use the dynamic of collection to satisfy a need to achieve, while rankings and leaderboards satisfy a need for social recognition while sparking competition. To spark collaboration, they’d suggest using group tasks, with the motive of increasing social exchange.

“Competition, either against one’s self or against a peer group, is the driving force behind the success of gamification,” [Banfield and Wilkerson](#) (2014) wrote. Competition, leaderboards, and the social interaction learners experience engage learners until their intrinsic motivation is activated. “As students begin to grow in self-efficacy, the scoreboard will provide the metric that makes competition an effective learning vehicle. Students will be exposed to learning pace, comparative analysis, and experience motivation to move deeper into a topic.”

Learners who are intrinsically motivated to do well so they don’t disappoint peers or team members will also respond well to cooperative games, Kapp said. “Sometimes they will work harder at something on a group-based leaderboard than they would if they were just an individual.”

Banfield and Wilkerson found that “intrinsic motivation increased dramatically with the introduction of gamification” in a study of students in a computer networking course.

Where learning activities are optional, individual learners’ motivation determines their engagement: Students with a surface learning orientation — limited interest in the task — are less likely to participate than learners with a deeper interest or who see the relevance and value of the task or material, according to [Tsay, Kofinas, and Luo](#) (2018).

## What is motivating the learner?

Behavioral theories argue that reinforcing a behavior leads to more of that behavior.

Thus the rationale for awarding points for engaging with or completing units of training is that it entices learners to spend more time training and to complete more content. Badges may motivate learners who crave recognition of their achievements or expertise. And leaderboards may motivate learners who wish to be recognized for their achievements relative to peers’ accomplishments.

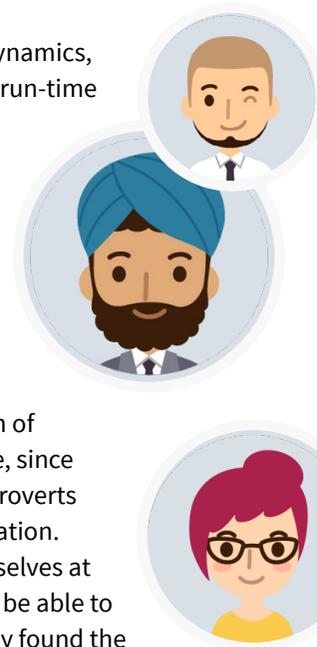
But not all learners are alike, and not all will respond in the same way.

## Individuals’ personalities influence their response to gamification

Researchers [Codish and Ravid](#) (2014) also discuss game dynamics, but examine learner response on an individual level, as “the run-time behavior of the mechanics acting on player inputs and each other’s outputs over time.”

Their study focused on understanding “how people with high levels of extroversion and people with high levels of introversion perceive different game mechanics in a gamification setting” and whether they perceive the entire solution to be playful.

In their study, leaderboards were offline, as was presentation of awards and badges. Extroverts found badges to be enjoyable, since they were presented in front of the entire group; whereas introverts preferred the more discreet leaderboards in this implementation. Though both introverts and extroverts enjoyed finding themselves at the top of the leaderboard, “since extroverts would prefer to be able to brag about it in real-time and in a face-to-face situation,” they found the off-line, non-public leaderboards to be less enjoyable.



## HOW DOES GAMIFICATION AFFECT LEARNERS?

In contrast, the extroverts got more enjoyment from earning badges than did the introverts. “This can be explained by the fact that badges in our implementation were related to achievements and were given during the class time, unlike some situations where they are given automatically and discreetly by a system,” the authors wrote.

Extroverts related points to progress, and found that they enhanced playfulness. They were also more attracted to rewards, which were seen as “neutral” and “insignificant” by introverts.

Though the authors recognize the limitations of their study, their findings suggest an important consideration for training managers using gamification: If a significant number of target learners are introverted, training managers should seek a balance by including mechanics and dynamics that will appeal to these learners, rather than assuming that all learners thrive on competition or the chance to earn public recognition or rewards. And a multifaceted gamification approach is more likely to contain elements that appeal to a broad and diverse learner population.

### Not a panacea

Applying gamification approaches to eLearning is not a magical solution to poor motivation or disengaged learners. [Armstrong and Landers](#) (2018) emphasize that, like any strategy, gamification must be done right and for the right reasons.

“Research suggests that to maximize the chances of improved outcomes, elements should be chosen on the basis of existing scientifically supported ties to the outcome of interest,” they wrote.

It should also address the real problem. Gamification won’t improve training results if low motivation is not the problem with the training. It doesn’t address issues such as instructional content that is poorly designed or not aligned with learning goals or workplace needs.

“The rationale behind the gamification of training is, at its simplest, that something about a given training program is broken and needs to be fixed. ... Low training motivation is frequently assumed to be the cause of training effectiveness problems, yet there are many other potential causes, such as low supervisor support for learning or a hostile climate for training transfer,” Armstrong and Landers wrote.

Gamification cannot fix these problems. Furthermore, they point out, popular gamification features like points and badges only work if earning the points and badges has meaning for the learners; “if trainees do not care about points, adding points to training will change nothing.”

In addition, game elements used should align with learners’ jobs, Kapp said: “If time is not a factor related to on-the-job performance, then time should not be factored into a gamified training for that job performance.”



**Low training motivation is frequently assumed to be the cause of training effectiveness problems, yet there are many other potential causes.**

– Michael Armstrong and Richard Landers

# GAMIFYING CONTENT VS. GAMIFYING METHOD

While gamification is distinct from learning games in that the gamification is an “add-on,” how this is done varies greatly. It’s possible, for example, to gamify **content** or to gamify **method** — what Kapp refers to as **structural gamification**.

## Gamifying structure or method

Adding points or badges on completion of specific content or providing feedback during or after each activity are examples of gamifying training **methodology**, according to Armstrong and Landers. The training content is unchanged.

Kapp points out that by providing constant and immediate evaluation of a learner’s progress, structural gamification techniques provide important information to the learner throughout the learning process.

This progress assessment is useful to managers or training administrators as well, as it “provides for diagnosing learners’ strengths and weaknesses as well as developing knowledge of each learner’s skills and abilities. Remediation, if needed, can be provided accordingly,” according to Kapp.

## Gamifying content

Gamifying **content**, on the other hand, could entail adding a story element, a challenge, or characters, such that training content is presented within the framework of a coherent narrative. The reasoning is that narrative content is typically more engaging, entertaining, or relatable than most instructional content.

Kapp adds that “Content gamification can be realized by adding story elements to a series of math problems to place the student in a fantasy context or starting a classroom dialogue with a challenge instead of a list of objectives.”

This approach can tap into motivation, according to Kapp: “In content gamification, it is possible to stimulate the learner through an optimal level of challenge, mystery, or a well-crafted story. This can tie into a learner’s motivational drive to complete a lesson.”

## Benefits and risks of structural and content gamification

There are tradeoffs, as Armstrong and Landers describe:

Gamifying Content	
Benefit	Risk
“When gamifying content, gains are potentially more transformative. By reinventing content, an entirely ‘new’ training program can be created from the seeds of the old one.”	“Training designers may transform the content so completely that it is unrecognizable and no longer meets its original training objectives.”
Gamifying Method	
Benefit	Risk
Content remains identical; therefore it still meets training objectives.	Lower potential impact; Trainees may view game elements as superfluous or manipulative.

# GAMIFYING CONTENT VS. GAMIFYING METHOD

Armstrong and Landers suggest the potential of “lesser-studied” game elements, including challenge and narrative, to improve training design and effectiveness. They suggest strategies such as:

- Using elements of challenge and conflict in goal-setting: Setting a specific, difficult goal should provide an optimal level of challenge for a learner — which can boost motivation
- Narrative genre texts are more easily understood and more readily remembered than other text genres, such as typical instructional texts
- Immersive contexts, including avatars or game pieces or audio and visual effects, can facilitate learning by creating a sense of presence, providing multiple perspectives, or enhancing the fidelity of the learning environment — which can improve learning transfer

## Effective gamification

Landers and Callan emphasize that the selection of a game — or any other instructional method — is appropriate only **after** the needs assessment and definition of learning objectives.

Next, one must choose the game or game elements that will best lead learners toward achieving those objectives.

“Effective gamification of training is created by targeting specific game elements to specific training needs,” according to Armstrong and Landers.

If the goals and needs analysis suggest that adding a particular game element would enable the training to better achieve its goals, then gamification should be considered. And if a problem is identified during testing or use of training, designers should consider whether gamification could help solve it — by making content more engaging or memorable, for example.

But, they emphasize, the decision to use gamification should be a considered, scientific, and data-based decision, not a default or a choice made prior to a thorough needs analysis.



**In content gamification, it is possible to stimulate the learner through an optimal level of challenge, mystery, or a well-crafted story. This can tie into a learner's motivational drive to complete a lesson.**

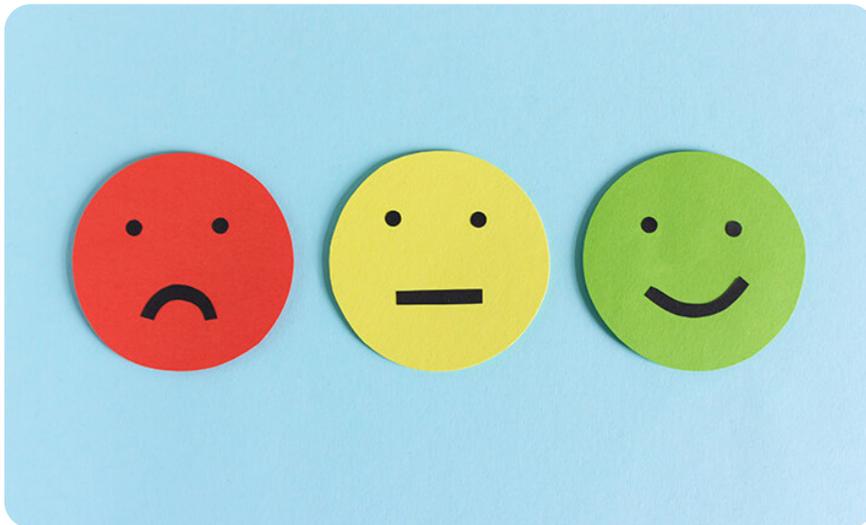
– Karl Kapp

# INTEGRATING GAMIFICATION INTO EFFECTIVE TRAINING

Adding some game elements can increase engagement, at least in the short term. Some organizations launch gamified content initiatives with incentives and prizes, and count on existing competition among, for example, sales teams, to build interest in “winning.” The reward might be a tangible prize, the top spot on the leaderboard, or bragging rights.

A mistake is adding these elements without integrating learning opportunities: If a learner can “win” by performing behaviors they already excel at, there’s no learning opportunity. And learners who **don’t** excel at the behavior aren’t improving and become demotivated by the experience.

Instead, Kapp advises, “Gamify behaviors.” If people who are tops at sales make more follow-up phone calls, then “winning” should not be about selling more but about making more follow-up calls. “Then, people who are not already top performers will make more calls and, therefore, become more successful,” Kapp said. “You are incentivizing behavior change — and not just what a small group already knows how to do.”



Other organizations build in game elements that are more subtle, less obviously “gamification.” Some of these can be done easily, while potentially offering significant benefits. Game elements that produce real results include meaningful [formative feedback](#), goal-setting and challenges, and using narrative.

## Formative feedback

While any type of feedback or progress meter might be considered a game element, thoughtfully written and useful feedback, provided throughout the learning content and, in particular, delivered after each learner interaction, improves learner performance and retention.

According to researcher [Valerie Shute](#) (2008), formative feedback is “information communicated to the learner that is intended to modify his or her thinking or behavior for the purpose of improving learning.”

It is provided at the task level, which means instructional designers can include formative feedback with every unit of microlearning and with every learner response in a simulation or other interactive activity.

Benefits include:

- Catching learner errors immediately
- Coaching the learner to a better response, approach, or solution
- Reducing cognitive load by guiding them through content and difficult activities in small increments
- Showing learners their progress

Shute cites research showing that more specific feedback makes a difference in learner retention, though it has little effect on learning transfer. Feedback that merely tells learners “Good job!” on a correct response or “Oops!” on an incorrect response is far less useful, although “feedback can be a powerful motivator when delivered in response to goal-driven efforts” and formative feedback can shift learners’ focus from performance to learning.

# INTEGRATING GAMIFICATION INTO EFFECTIVE TRAINING

## Goal-setting and challenges

All well-designed training has learning objectives or goals. Effectively using the game element of challenge or goal-setting can entail bringing the challenge into each activity or setting multiple challenges for learners. Incremental goals on the way to achieving the overarching goals of the training or small challenges that ask learners to recall and apply content covered in the training reinforce learning, engage learners in more active learning, and build retention.

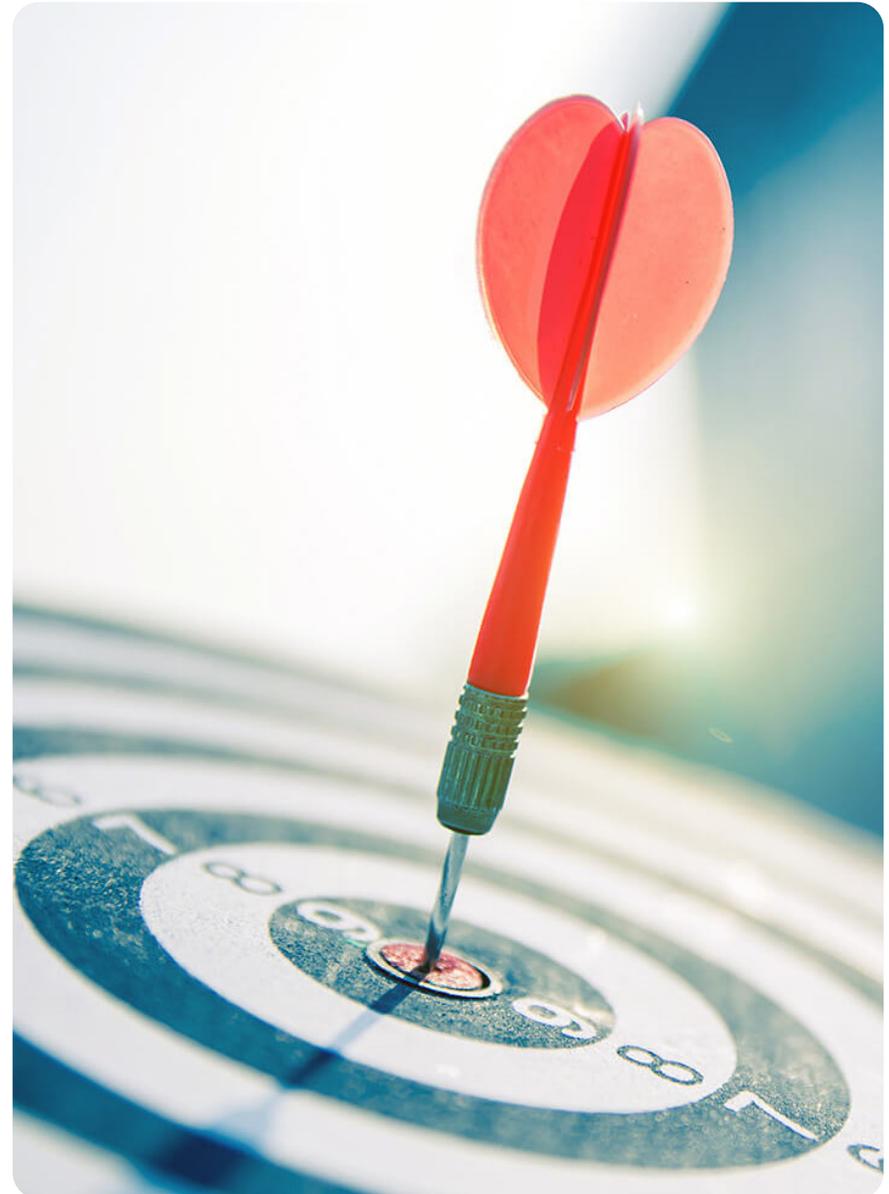
This can be accomplished in many ways. In a comprehensive training, each unit can have a series of challenges or goals — learners answer questions to unlock advanced content, must succeed in an activity to move up a level and access the next unit, or apply content or solve problems to access items or information that moves them along the path toward their goal.

Even shorter training units, like microlearning, can build in challenges and goals. Content might be structured using scaffolding to ensure that learners master basic processes or concepts before moving to advanced topics, and challenges and activities can “enforce” the levels and order in which they encounter content items. Or a microlesson can be built to include a brief content presentation and application questions that challenge learners to apply the content in a mini-scenario that reflects a situation they are likely to encounter on the job.



**Feedback can be a powerful motivator when delivered in response to goal-driven efforts.**

– Valerie Shute



# INTEGRATING GAMIFICATION INTO EFFECTIVE TRAINING

Tsay, Kofinas, and Luo suggest that educators invite students to set up their own challenges and design learning goals, an approach that could provide adult learners with a deeper connection to their professional training curricula and stronger motivation to pursue corporate learning paths.

## Narrative and immersion

Narrative and immersion pair well; building training around a story draws learners in and might even get them talking about characters and incidents with colleagues. This is equally feasible for comprehensive training courses and episodic training like a video series or microlearning app. In the more episodic implementations, short scenarios, potentially packaged as “short sims [☑](#),” would each stand alone as incidents, but be linked by a common set of characters, interacting in a setting similar to learners’ work environment — and each unit would cover a situation the learners could face in real life. A comprehensive course provides the opportunity to build a longer story around the characters and training content.

When instructional content is wrapped in a story that is relatable — with characters that seem like potential colleagues and situations that are familiar — it is relevant and engaging to learners. These elements increase the likelihood that learners will try out different options and learn the possible outcomes. This practice can lead to discussions with actual colleagues and can also come to mind when they encounter a similar situation during their day-to-day work. The recognizable context, according to Kapp, “can anchor the desired behavior and can create the right triggers for activating the behavior on the job.”

# CONCLUSION

A popular approach to motivating learners, gamification offers many benefits — when done right. With a solid understanding of how some game elements act on learners’ motivations and drive to engage or succeed, a training professional is on the way to using gamification effectively.

Equally important, though, is a thorough understanding of the learner population and the learning goals. Effective gamified training must suit the learning content, the goals, and the learners who will be expected to use and benefit from it.

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