Gamification Effectiveness and E-Learning:

12 Tips to Help You Evaluate and Implement Gamification

eLeaP™ is a SCORM compliant training and learning management platform helping organizations quickly create and track online training and e-learning to maximize performance while minimizing costs, IT and compliance headaches.

Introduction

"The cases for using gamification are numerous and growing...SAP uses games to educate its employees on sustainability; Unilever applies them to training; Hays deploys them to hire recruiters; and the Khan Academy uses it for online education..." writes David Zinger in a 2014 journal article[1] about gamification.

Knowing that these well-established organizations make use of gamification to strengthen their competitive advantage should come as no surprise. The question is whether you can afford to not be familiar with this potential game changer. Done right, gamification can transform your own organization into a more cohesive, engaged and productive work environment.

Gamification - it is pronounced a bit differently (*Gam*-ification) than it looks, and reads more like *Game*-ification.

Why make this distinction? Why explain how to properly pronounce the term? Because the very meaning of the word "games", helps to clarify the meaning of the larger, and perhaps, stranger term - gamification. Gamification is what it "sounds" like - *the process of something behaving characteristically like a game*.

It is something that is applied, obviously, to the world of games, but also something of significance in the business world. This "theory" of gamification can be applied to marketing as well as to training or e-learning in order to accomplish tangible and predictable responses, reactions, and goals.

In this whitepaper, we are going to explore the broad meaning of gamification and learn how it can be used in modern business training to achieve tremendous and quantifiable results. We are going to review twelve different concepts that will help you recognize how and where to apply gamification.

Universally Applicable

Among the first questions posed during any discussion of gamification is: Can it really be put to work in any field or industry?

In a word: **yes**.

Once you understand the full definition of gamification, you will recognize how it can be used as a powerful conduit for engagement within any organization or service provider. It might quickly become your preferred system for designing training, e-learning and marketing.

Gamification is not the playing of games or the use of games to get people to visit your website, try your product, or engage in e-learning. Instead, it is an applied design technique that can be used to effectively engage clients or staff in enjoying even the "driest" of subject matter. In theory gamification makes dull activities seem like fun, which has many obvious benefits in the creation and implementation of any sort of training, marketing, or interaction with staff and clients. However, though gamification is not at all complex, it will demand organization and intelligent design in order to be most effective.

Gamification is an ideal tool for e-learning and training because it creates that same sense of desirable and prolonged engagement that most games utilize. It can rely on a series of rewards that ensures that

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[1] http://www.astd.org/Publications/Magazines/TD/TD-Archive/2014/05/Game-on-a-Primer-on-Gamification-for-Managers

the "desire to continue" exists, but it is also a reliable way of providing a fully interactive or "learn-by-doing" user experience that guarantees success.

We'll break things down into their constituent parts (looking at the various "mechanics" that are used), to enable you fully evaluate whether gamification has any role in your own business or organization. This detailed look will allow you to recognize where you can apply it in your organization, and how to use some of the specific game mechanics to gain the results promised by gamification.

Like games, the use of gamification can be fun, inspirational, and satisfying. You don't have to create elaborate games and hire high-end programmers to be able to benefit from gamification. You need only apply "game mechanics" and "game thinking" to the creation of training tools and e-learning courses.

To keep things simple, we'll open with a general introduction to gamification, and then explore how to use it in day-to-day business training or employee interaction scenarios.

Section One

Gamification - An Introduction

> *"The application of typical elements of game playing (e.g., point scoring, competition with others, rules of play) to other areas of activity, typically as an online marketing technique to encourage engagement with a product or service." (Oxford Dictionaries, 2014)* [2]

This definition helps to clarify some basic facts about gamification. It is the use of "elements" of game playing, but not game playing itself. Gamification is one way to make training and development activities which can be less than ideal and in fact boring more appealing and fun.

This is why employers and large businesses are paying attention to gamification - it can make marketing easier by engaging potential clients in entirely new ways through game-like simulations, experiences, and "feelings". Naturally, it has to provide something more than just a bit of fun, and advocates of gamification are quick to point out that it is really the by-product of the "fun" that is the primary reason to use it.

When anyone is fully engaged in the work that they do, it creates what some have called "flow". Mihsly Csikszentmihalyi defines flow as:

> *"Flow tends to occur when a person faces a clear set of goals that require appropriate responses. It is easy to enter flow in games such as chess, tennis, or poker, because they have goals and rules that make it possible for the player to act without questioning what should be done, and how. For the duration of the game the player lives in a self-contained universe where everything is black and white...In contrast to normal life, these 'flow activities' allow a person to focus on goals that are clear and compatible, and provide immediate feedback.*
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> *Flow also happens when a person's skills are fully involved in overcoming a challenge that is just about manageable, so it acts as a magnet for learning new skills and increasing challenges. If*

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[2] http://www.oxforddictionaries.com/us/definition/american_english/gamification

challenges are too low, one gets back to flow by increasing them. If challenges are too great, one can return to the flow state by learning new skills. ([Csikszentmihali, 1997](#))[3].

Won't you like your team to exhibit 'flow' as they go about their daily work activities? To generate 'flow', it makes sense to use gamification as it makes challenging or mundane work manageable and even appealing. In addition to creating flow, gamification helps with providing a method through which employees can handle large amounts of training (so called 'grunt-work') in a seemingly effortless manner. From what we can see, gamification creates flow, and in so doing improves concentration and task completion.

This blending of action and awareness often allows the individual to ignore typically interfering thoughts or concerns - i.e. they may "forget the time" as they "get into" the training; they may feel far more in control of parts of their work as they gain new skill sets; or they lose any self-consciousness about performance because the "flow" has pulled them in so deeply into the experience that they are entirely focused on the tasks at hand.

How Is Gamification Done?

To answer this question of how gamification is achieved, let's turn to another (and far more in-depth) definition:

> *"Gamification is the process of taking something that already exists – a website, an enterprise application, an online community – and integrating game mechanics into it to motivate participation, engagement, and loyalty. Gamification takes the data-driven techniques that game designers use to engage players, and applies them to non-game experiences to motivate actions that add value to your business." ([Bunchball, 2014](#))[4]*

Here you might recognize that gamification is described more as the application of the "science" behind games as well as the integration of gamification into business and other systems.

Here's a great story about one of the earliest application of gamification:

> "A workshop owner sees that production has declined during all daily shifts. He asks the floor manager for the total number of units one shift was able to produce, and writes this on a large message board for all to see. When one of the members of the team asks what that number means, they are all told its significance. When the next shift enters the workshop, they see the figure on the board and are informed that this is the rate of production from the previous shift. Almost instantly, this creates a sense of competition as all of the shifts begin competing for a higher number. They are allowed to track their production and write their updated production achievements on the board as a means of continually challenging one another. Ultimately the overall production levels of the entire organization increase – all because of a simple number written on a board for all to see."

That is a very basic implementation of gamification however it uses several of the "mechanics" (which we will look at below) of gaming - feedback, goals, and metrics to improve performance. Points, profiles,

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[3] http://www.psychologytoday.com/articles/199707/finding-flow
[4] http://www.bunchball.com/gamification

levels, comparisons, status indicators...these are all part of game mechanics too.

There are ten different types of game mechanics commonly put to use, and they will make up ten of the twelve "tips" we will review. The final two tips will cover how these things overlap in real world terms and what the "promise" of gamification actually means.

To Summarize

You now know that gamification has very broad applicability. It is not creating something brand new for your clients or employees to use, but is instead a method of amplifying something that already exists. Gamification can boost outcomes, increase employee interest, and generate a far better return on human capital development investments. It can do so without any obvious techniques because it is going to engage users and get them to participate often with the "game" (business, sales, website, training, or e-learning) and its features.

While training programs and e-learning may not demand long-term sustainability because they meet short term goals, they must be more than mere "distractions" to employees. It can be too easy and tempting to just create a "game" from your existing training program. You will however miss the opportunity to create a more powerful tool to engage and motivate your staff over the long term.

It is also advisable to actually view your gamification efforts as means of making learning outcomes more sustainable. As one expert indicated: "We need gamification that..[is] tied to strategy and outcomes that matter - games that help us get more into work." (Zinger, 2014)[5].

Speaking of engagement, the use of points or rankings may motivate, but these do not necessarily transition into a deeper meaning for or appreciation of the tenets of gamification. Another goal of your gamification efforts should be to do more than just applying motivational tools as rewards - your goal should be to discover new ways to weave the use of gamification into promoting deeper engagement and goal oriented learning and training.

If you think of gamification as *thoughtful design* rather than just *functional design*, you can begin to pose effective questions and implement answers that provide that deeper meaning and ongoing engagement. For example, simple questions about what an e-learner might want or need to in other to move forward in their training could help with gamification design. The learner might appreciate incentives or rewards for each segment completed or they may enjoy tutorials that allow them to actually use what it is they have just learned. Either way, take the time to ask these important questions before starting your gamification journey.

Let us now explore the ten ways that game mechanics can appear in any gamification application, and how you can use them in your line of work, organization, business, or website.

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[5] http://www.astd.org/Publications/Magazines/TD/TD-Archive/2014/05/Game-on-a-Primer-on-Gamification-for-Managers

Section Two

Ten (10) Game Mechanics

Gamification expert Yu-Kai Chou has an entire career dedicated to gamification. He created an innovative way of looking at gamification using the term "octalysis", or "8 core drives". These drives are emotional responses and needs met through well-implemented gamification.

Here's how Yu-Kai Chou views gamification. His gamification "framework" includes eight factors:

- Meaning
- Accomplishment
- Empowerment
- Ownership

- Social Pressure
- Scarcity
- Unpredictability
- Avoidance

Sorry to get technical but here goes:

Although Chou has a point when he says that it was the "gaming industry that was first to master human focused design" and use "objectives" to get people motivated to play for great periods of time, his approach can be overly complex for those new to gamification. For example, his core drive known as "Accomplishment" is one that anyone familiar with gamification might understand because it brings things like "points", "badges", or a full "progress bar" in a user's profile into prominence.

Those with a basic understanding of gamification may already know the value of accomplishment and yet lack clarity on how to bring their software or website to this expert level through Chou's theories.

How do you tap into a user's emotional connection to accomplishment as you design your e-learning program? How can you offer accomplishments in a tangible sense?

We certainly agree with Chou's idea that kids play games based on how these games motivate them, and that many are happy to do what is called "grunt work" because it brings with it a sense of accomplishment and pride. Use this sense of accomplishment in designing training programs which motivate users to

Jane McGonigal, another expert on gamification said:

> *"..overall, games have four traits: a goal, rules, a feedback system, and voluntary participation. It is helpful to remember these four traits...because it is easy to get lost in the complexity of gaming and lose sight of the fundamental attributes that spark engagement" (Zinger, 2014)[6]*

Complex and simple at the same time, gamification must be implemented in a way that emphasizes engagement. To do this, you must understand the ten mechanics that would allow things like grunt work (seemingly mindless or repetitive tasks) to be completed.

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[6] http://www.astd.org/Publications/Magazines/TD/TD-Archive/2014/05/Game-on-a-Primer-on-Gamification-for-Managers

The Essence of Gamification

Game mechanics are employed to engage users, create extended periods of interaction and to reward engagement in order to ensure loyalty. This is the essence of gamification. We encourage you to utilize these game mechanics when you are designing or creating any training or e-learning content applications:

1. **Feedback** - This is meant as immediate feedback or responsiveness to your actions. You know that those "thumbs up" from Facebook are a good example of providing feedback, but what does that really "do"? Essentially, immediate feedback and action responses serve as a way of encouraging users to increase or continue activities. Things like messages, congratulations for hitting goals, and encouraging further interaction serve as rewards that motivate users to expand their interaction. Why else would Facebook keep track of the numbers of comments, likes, etc.? Why else would they notify you that someone has "liked" your posts?

   How it applies: Any training or e-learning must be responsive to the user's success by offering congratulations for goals reached. Make sure you incorporate a feedback loop into your content design.

2. **Standings/Metrics** - Have you ever looked at a LinkedIn profile and seen that it has a status bar that shows "Completion"? This is a form of "standing" that speaks to the user in terms of completion or progress. Other examples of standings include general leaderboards, number of clients, or even bids won. You can see how this would automatically cue users to feel competitive, to gauge their performance against others, and to adjust their interaction to present their most "victorious" selves. If you make standings and metrics available, most likely you will see more completed profiles, more frequent participation, ongoing interaction, and updates.

   How it applies: Any system for training must provide users with their status reports, how far along they are in any given session/chapter, and how they are performing over time - such as their "averages".

3. **Goals** - Users want to experience success. You can create the kind of interactions that give them value when they meet specific challenges or missions. Step by step tutorials, self-evaluation tests, milestones...these are all gamification elements that can help users enjoy richer experiences. If you visit the Elance website and look at user profiles, you can see clear examples of the value of goals. Those who seek to gain clients through the site are able to do self-assessment tests, and attempt to get specific certifications to bolster their standings. This enhances the value of their profile and engages them in a much deeper level. The website Mint.com is another great example of this type of gamification as it asks users to create basic goals, and then the site builds upon them and cues the consumer to strive for bigger financial goals.

   How it applies: Be certain to build clear-cut milestones into any training session and to an overall e-learning program. This promises the user that not only are they are moving along in the right direction and are nearing completion, but also ensures that they continue in order to reach their target goals and objectives.

4. **Accomplishments** – Accomplishments are different from goals in that accomplishments are earned through the use of "badges". These badges will usually have value only within a limited "community". For example, any labels or badges that identify a professional as having industry expertise or achieving certain levels of training or certification also bestows on them prestige and recognition amongst their peers and customers. Fitness professional Jillian Edwards relies on this form of gamification for her website.

   How it applies: Be sure that any user can see their level of achievement through a specific system of stars, badges, tables, and charts. Visual acknowledgement of progress is imperative to successful gamification.

5. **Learning-by-doing** - Gamers become masterful players through persistent determination and continued practice in their selected digital sport. You can apply this same logic to your own gamification efforts by asking users to "learn-by-doing". As an example, if you are introducing clients or staff to some sort of new interface, you shouldn't just toss them into it without any means of actually learning how to use the system. Instead with gamification, you can create a series of simple tasks or missions that allow for full engagement while the users develop their basic skill sets. Language learning software like Duolingo.com and other websites are champions at this sort of interaction, and are able to bring users back again and again to continue learning. Another champion at the use of learn-by-doing gamification is the U.S. Army through its recruitment tool - the Virtual Army Experience that is played like a standard video game while gauging the player's abilities and even helping them to hone certain skills.

   How it applies: Using e-learning has to be more than just improving on reading text on pages. Implement actual tasks into the training - whether it is fill-in-the-blanks or actual software simulations, to ensure that users are mastering the requisite skills.

6. **Levels** - Measurable levels are a way of giving prestige to users who will benefit from the enviable status these levels accord their owners - the display of visual indicators can inspire individuals to strive for or exceed the status of their peers or competitors. Implementing *levels mechanics* can guarantee that long-term interaction will occur as the user must sustain their relationship if they want to continue to access new challenges, gain new rewards, and move up the levels provided. The learning website known as Treehouse.com is a great example of advancement and levels used to keep users engaged and returning.

   How it applies: Create a visual system that shows the user where they are in the overall training program. Will they get some sort of certificate or badge at the end of a session? Are they close to an established reward? Make sure that such visuals and cues are incorporated into your training course or e-learning application.

7. **Competition** - Transparency is a key part of gamification, but nowhere is this more evident than when creating competition. Yes, we've mentioned leader boards but this is different. Rather than just general boards, this is the game mechanic that uses things like time-based boards and rankings in comparison to other actual competitors, etc.

For instance, one site used competition to gauge how participants used energy resources. As each participant used less and less energy, they saw just how much lower they would need to go in their energy consumption in order to attain the top rank on the leader board. Kaplan University also implemented this sort of competition through its use of badges that distinguished successful students from the general population.

How it applies: If the training or e-learning course can be adapted into a friendly competitive endeavor, by all means create leader boards showing "high scorers", or who is farthest along the training path. Healthy competition is easily created just by introducing such simple metrics.

8. **Teams** - Gamification is great for encouraging teamwork. The "metrics" available can show what sort of impact someone might have on a group that they join, but this same game mechanic will also allow people to see how larger tasks or challenges can be easily met through "sharing" of responsibilities. Think of the many crowdsourcing sites, micro loan sites, and the social action sites that all use shared resources to show the power of teamwork. Kickstarter is a website that shows the power of teams, but so too is the lending website known as Kiva.

   How it applies: Again, this is similar to the competition factor. Creating teams, showing their levels of achievement, and creating group dynamics through established teams will encourage users to nurture each other as team members, helping to ensure optimal training results.

9. **Sense of community** - In line with teams, is the power of community available through gamification. When you peruse a site like LinkedIn, you see what others in your industry have attained in terms of goals, rewards, "badges", etc. This can generate a new level of friendly competition as users are driven to seek out this sort of validation or success for themselves. Bluewolf is a company that has used the power of community to build its brand through employee engagement.

   How it applies: Team building is great, and you can create another level of competition within your established communities. Identify how each member of the team is doing, create leadership levels, and generally help to develop skills by rewarding them with authority within the community.

10. **Measurable rewards** - Unlike other game mechanics, measurable rewards are tangible forms of validation. Actual points or scoring methods, real goods and services, financial contributions or rewards - these are examples of the kinds of "tangibles" that are possible through well-made gamification. The website known as Recyclebank has truly mastered this tactic and offers everything from discounts to points.

    How it applies: Whether it is paid time off, increases in pay, or some other tangible rewards for effective e-learning or training, be sure that you fully incentivize your use of gamification and electronic training.

Every single game mechanic identified above has a common goal - to create new ways that users can engage and extend

their interaction with whatever training, e-learning or website or business application you deploy. However, through this engagement, gamification also strives to create a sense of loyalty to the "game".

We can look at the list of eight "core drives" that were identified by Yu-Chai Chou, and see the emotional components within them. We know that these are "*human focused*" and meant to please users. However, if we are going to view gamification as a training tool, we must also consider the *function focused* elements meant to help managers (rather than users) meet their goals and objectives.

When talking about gamification in a business enterprise, we are not merely looking at human focused outcomes. Yes, we want the people who engage with our websites or business systems, to be happy doing so, but that is not the ultimate goal.

This is where our **final two tips** come into play.

Businesses and organizations must continue to find ways to inspire, motivate, and even "hook users" into a deeper and persistent engagement with them. To do this, we have to encourage the creation of outcomes that provide more than just emotional values. These outcomes must offer validation, satisfaction, and even tangible rewards.

This is the criteria that will shape the final two methods of gamification as they apply to real world business scenarios and training models.

Section Three

Real World Application and the Promise of Gamification

To determine whether gamification is right for you and your organization, ask some pretty basic questions:

11. **Is the gamification motivational?** – It is recommended that you begin your gamification design and implementation process by posing one question: What is in it for them? Consider this common issue that author Lorri Freifeld discussed in her article – *5 Gamification Pitfalls:* "...in the end they lose their audience because there is no intrinsic motivation to keep playing. Find out what motivates your audience and your game, and its intended results will win every time." ([Freifeld, 2014](#)) [7]

    Do you truly understand your audience? For gamification to be done right it has to go deeper using elements of market research to truly understand your audience. Everything from esthetics in design to the amount of free time dedicated to training must be carefully reviewed when designing gamification initiatives. Answering these basic questions about use, motivation, incentives and consequences will help ensure that the final product of your gamification effort will yield the right results.

12. **Did you know gamification expands relationships?** - Many organizations can simply try to "tack on" gamification to a strategy without properly understanding that they have moved things beyond the "superficial". Always keep in mind that gamification, when done right, will expand or extend relationships. That means, as a training tool, you have to provide a "two way" channel of communication. Users or trainees must feel that they are capable of interacting with

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[7] http://www.trainingmag.com/content/training-today-5-gamification-pitfalls

each other and you as well as with the system rather than just passively "test taking" or "training". Integrating many forms of feedback is one way of deepening those relationships. This human element in gamification design can be easy to overlook. Be sure to keep relationships in mind and put in place mechanisms to ensure that they are properly managed.

In Closing

While gamification can be a brilliant tool to use when designing e-learning or company training or even marketing initiatives, it is important that you consider both the human and functional needs of your organization. Certainly employ the ten game mechanics we discuss in this whitepaper because the fact is your trainees won't mind the "grunt work" of learning when you offer it to them through the platform of an addictive game.

We have highlighted real world applications of gamification as take-a-ways to enable you replicate these same successes in your own organization.

Your employees will benefit and can respond to the proper use of gamification because they will feel far more motivated, competitive, creative, and inspired. You can also develop long-term loyalty in your marketing and employee relationships through the use of gamification in training.

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