

**How Gamification Reshapes Learning** 

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#### Introduction

BY CHRISTOPHER PAPPAS

#### No Game, No Gain!

Dedicated Learning Professionals and Educators across the globe were until recently desperately seeking for ways, methods and techniques to engage employees and students in the learning process. Surprisingly enough no one would think that **games** was the answer. After all, games tend to increase learners' natural desire for competition, goal achievement, and genuine self-expression, while they also promote interactivity, have rules, a quantifiable outcome, and can be colorful, appealing, and extremely realistic.

#### **Enter Gamification**

Gamification is the use of game thinking and mechanics in a non-game context to inspire employees and students to get engaged in the learning process. The word itself was launched in 2002 by Nick Pelling, a British IT expert, but wasn't widely used until 2010. Based on extended research conducted by numerous educational institutions, what makes games effective for learning is the learners' level of activity, motivation, interactivity and engagement. This increases their fluid, as well as crystallized intelligence, something that by definition optimizes learning.

#### The Most Effective Uses of Gamification in Learning!

In this **Free How Gamification Reshapes Learning ebook** you will find useful information about *Gamification*, its applications, and its impact on the *reshaping* of *learning*, provided by *23 Gamification professionals*. They were all carefully selected based on their specialized knowledge on Gamification, education and business, as well as their innovative projects in this field. They share their wisdom and provide tips on the *effective use of Gamification in the learning process*.

Enjoy reading the 2nd of our recently launched **free Learning eBooks series** and feel free to contact our **top-notch Gamification professionals** for more information.



#### Christopher Pappas

Founder of **The eLearning Industry's Network**. Currently, the *eLearning Industry* has a network of more than 75,000 professionals involved in the *eLearning Industry*.

Christopher holds an MBA, and an M.Ed. (Learning Design) from BGSU.

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# What are the most effective uses of Gamification in Learning?

BY AN COPPENS

In my view we always learn better when the experience is FUN. As a trainer, I often used games to illustrate behaviors and to bring home important points in a training session. What I found is that how we do one thing is how we do other things too, so our choices in a game very often reflect how we would behave in a real life scenario.

Where possible, I convince clients to put their learners in the driving seat and then build decision points in a learning experience based on relevant situations and choices with the same instant feedback as you would receive in a game. For example, in a recent eLearning workshop on environmental awareness, I created the choices the learner could make and based on each choice they had different consequences; some staff followed procedures, some got fined and a rare few would end up in jail for serious law violations.

A great game typically has a compelling storyline with a plot where the player becomes the main protagonist and hero on a journey through a number of challenges. I believe this is where learning meets a combination of Hollywood and multi-player online game. You need a good plot and a series of lifelike challenges for the learner with increasing levels of difficulty.

I am currently scoping a simulation for media planners in the television industry, where the learner becomes a media planner with an increasing portfolio of advertising to place in the TV-schedule based on rules and regulations of the company, how it was sold by sales team, as well as the industry standards. The journey and choices you make could have you promoted to specialist, generalist, team leader or in the worst case scenario fined and fired. By introducing different challenges with increasing levels of difficulty you mimic the learning curve of a new employee and options the employees really have to make. The added bonus of an in-company game is that you can play against your colleagues and even your managers, which adds the psychological driver of peer pressure and team fun with visual scores and leaderboards.

Gamification in learning works best when you make the learner think and you let them experience the consequences of their choices.



An Coppens

Position: Chief Game Changer
Company: Gamification Nation

**Short Bio** 

An Coppens is the Chief Game Changer at Gamification Nation Ltd, where the vision is to make business and learning more fun and engaging. She is an award winning business coach, learning & development professional, author and speaker.

Through Gamification Nation, An offers consulting services and online learning programs to assist organizations with creating lasting experiences customers remember, by applying game psychology and game design techniques to non-game situations. She is currently ranked in the top 25 gamification gurus globally with her Twitter alter ego @GamificationNat. On the Gamification Nation blog she contributes a weekly gamification mechanic and more views on how gamification works for businesses.

You can visit her website at: ancoppens.com

# What are the most effective uses of Gamification in Learning?

BY ANDREW HUGHES

Increased user retention is key to any effective application of Gamification. When users remember the learning material, apply it to their real lives, and come back to learn more, you know your project has been successful. This is the ultimate achievement for any educator or business professional looking to take full advantage of Gamified training.

Our team at Designing Digitally, Inc. has had the opportunity to work with an extensive variety of clients, and whether our clients are business professionals or are attached to a university or government agency, they all are looking for ways to ensure users take what they've learned away with them and apply it to their daily lives. Through my own experiences, I've found that the best way to achieve a project's learning goals is by leveraging the benefits that game mechanics provide, particularly mechanics that promote social interaction and competition.

One of my favorite examples of this is from our own team's work. Using Gamification and the Microsoft Kinect, we developed a tool that enables patients recovering from strokes to practice relearning the skills they'll use at home. By simulating the actual tasks they will perform in a safe virtual environment, they are able to return more easily to their usual daily routines. All of this is wrapped up in an immersive, engaging platform with a competitive social scoring system where users can earn badges and compare their performance to both to their own past results and to other users' results.

Gamification can transform your material into something meaningful that users will carry with them long after they've finished your training. Try it out in your own projects. I guarantee the results are worth it.



Andrew Hughes

Position: President

Company: Designing Digitally, Inc.

**Short Bio** 

Andrew Hughes founded Designing Digitally, Inc., which specializes in eLearning, Training Simulations, Serious Games, and Virtual Immersive Learning. Andrew has an extensive experience in education, as a professor at both the University of Cincinnati and at the Art Institute of Ohio - Cincinnati. Currently, Andrew is the president of Designing Digitally, Inc. and also a curriculum evaluator for ACICS (Accrediting Council for Independent Colleges and Schools). The majority of Andrew's experience has been in the development of enterprise learning solutions for Government and Fortune 500 clients. Moreover, Andrew was a consultant for the Ohio Board of Regents and the U.S. Department of Education for the Office of Innovation, where he helped to develop ground-breaking learning spaces for the K-12 sector. Having successfully taken on responsibilities in instructional design, project management, sales, and leading his own team, Andrew has propelled Designing Digitally, Inc. to be an award winning virtual immersion and eLearning company.

# What are the most effective uses of Gamification in Learning?

BY ANYA ANDREWS, PH.D., PMP

Besides the learner audience engagement and development of target behaviors through the power of gameplay, the most effective uses of gamification in learning should capitalize on its ability to transform the learning process. To be considered transformative, gamification efforts must produce a high-impact positive change for a given learning environment instead of making it "just a little more fun" for the learners.

When I think about transformation, I always remember a project for a Navy client who asked my team to explore the potential of incorporating gameplay into an existing leadership training program, or, in other words, "gamifying" it. Considering that back in 2007, the term gamification had not yet gained the popularity it enjoys today, our project officially focused on creating a serious game to foster leadership skills of junior officer staff. The produced serious game was based on a collection of "sea stories" illustrating real-life leadership challenges and included a healthy combination of narrative, challenge, meaningful choice, achievement, and other great elements of gameplay. The game was very well received within the Navy and even earned several awards, which made my team extremely happy. However, what mattered most was the fact that, by way of this game, the existing learning process (jokingly referred to by our Navy friends as "GSAT: Guys Sitting Around the Table") was transformed into a compelling, context-driven, self-reinforcing learning experience that allowed the learners to explore a multi-dimensional slice of reality instead of simply reviewing a case study book. In today's terms, we would say that the existing learning process became "gamified".

Whether gamification is viewed as a set of strategies, tactics, or products for learning, its most effective uses will always be those that enable a significantly positive change to meet the needs of a particular learning environment.



Anya Andrews, Ph.D., PMP

Position: President

**Company: Erudition Corporation** 

**Short Bio** 

Dr. Anya Andrews is an award-winning instructional systems architect, specializing in serious games and immersive learning simulations for training, education, and human performance improvement. As the founder and president of Erudition Corporation, she leads the company's learning innovation programs for corporate, academic, and government clients. Anya's professional credo involves designing sound learning solutions by bridging the gap between research and practice. Dr. Andrews also serves as a senior faculty at the University of Central Florida, Institute for Simulation and Training and was recently named one of the top executives under the age of 40 by the Orlando Business Journal.

# What are the most effective uses of Gamification in Learning?

BY AUSTIN L. MEREDITH

In our day and age where distance education participation is emerging, new methods of increasing learners' interests are in high demand. The recent development of gamification meets this need, and has captured the attention of not only learners, but also of institutions seeking to increase user participation and retention. Gamification is a trend expected to expand, especially in the use of teaching those with learning disabilities. I, myself, have Attention Deficit Disorder and along with other people experiencing the same issue have reacted positively to courses with gamification elements. Those of us who suffer from ADD or ADHD can get easily distracted from learning, because it can become a monotonous practice of regurgitating the information learned. By adding engaging elements to educational material, gamification significantly helps in capturing the attention of those that have a hard time focusing on learning in a normal setting. Not only is information retention increased, but adding these elements creates a positive association with learning, which is very difficult for those with attention disorders. I believe that in the next few years there will be a need for adding gamification elements to learning for those with various learning disabilities.



Austin L. Meredith

**Position:** Training & Development Associate

Company: Digital Management Inc.

**Short Bio** 

Austin Meredith holds a Bachelor's degree from the University of Maryland, Baltimore County (UMBC) and is currently working on his Master's degree in Instructional Systems Design with a focus on gamification at the same school.

Austin works at Digital Management Inc., where his duties include administering the entire career and professional development program and Learning Management System. Currently, he is researching the use of gamification elements in designing learning programs for those with disabilities.

# What are the most effective uses of Gamification in Learning?

BY BRYAN AUSTIN

The holy grail of corporate learning is to improve job performance. There are several challenges that make this extraordinarily difficult, including:

- Are there enough skill application-level exercises and scenarios in the training? Complex skills cannot be assimilated in minutes it takes hours of practice.
- Is the training engaging and challenging enough to capture the best efforts of the learner to master the skills?
- Will the learner develop enough confidence through the training to actually apply the new skills on the job?
- Is the training followed with the needed reinforcement and coaching to anchor the knowledge or skill?

I've been in corporate learning for 25 years and have never witnessed more impactful learning outcomes and performance improvement than those produced by game-based simulations.

We provided online game-based negotiation training to a California-based agency that works with businesses to get their state taxes current. At the conclusion of the training, we conducted a group exercise, where each group was given a case study and was asked to create a solution. According to the training team lead, "The participants were able to apply what they have learned in the game and discuss it with the other students and instructors. This exercise solidified and grounded the training into real life situations that employees may experience, and allowed them to see a new way to approach each scenario".

"I saw a difference in how the pilot group approached a scenario, applied techniques that were clearly learned from the course, and came up with win-win situations for both the agency and the public."

From a learning transference perspective, the training lead is impressed with the performance impact of the game. "Several weeks after the training, I received responses from several participants. Each said they selected cases other employees were unable to resolve, and using the techniques taught in the game, they approached the cases from an entirely new perspective. They worked with the business owner to negotiate a solution that allowed the taxpayer to resolve their issues, and the state to clear the account. In all cases, the taxpayer expressed satisfaction with the outcome".



Bryan Austin

Position: Chief Game Changer
Company: Game On! Learning

**Short Bio** 

Bryan Austin is the Founder and "Chief Game Changer" of Game On! Learning. Throughout his 25-year career with leading organizations like SkillSoft, NETg and Kaplan, Bryan has dedicated himself to helping organizations develop high performing employees through innovative learning solutions. A hallmark of Bryan's approach is his keen ability to think outside the box and create engaging, skills-based learning experiences that accelerate employee growth and productivity.

The fusion of technology and learning has always captivated Bryan, and he has led companies that provide cutting-edge, technology-delivered learning solutions to medium, large, and global companies. For Bryan, it has been fascinating to be a part of the evolution of corporate learning and development.

# What are the most effective uses of Gamification in Learning?

BY JAMES BOWEN, PHD, PMP

Gamification can shift the motivation for learning from extrinsic to intrinsic. Games are a way to experience the world in ways not possible in reality and thus tap into a natural learning process and enjoyment. In education, gamification can create learning environments that condense the learning time of key ideas and allow students the possibility to explore concepts while enhancing the natural intrinsic motivation of learning. This interaction with a simulated environment leads to a higher level of engagement.

Experiential Simulations' Entrepreneurship game Traction has gamification elements, such as leaderboards, badges, competition, and feedback. Players experience a start-up environment both post and pre-revenue while maximizing the overall game score. Players can collect badges for completion of product testing or obtainment of standards. Obtaining badges and other achievements within the game have a random element associated with them. This random element means that the reward isn't predetermined from a given set of actions, which makes the accomplishment more enjoyable.

This mixture of randomness mirrors reality in startup environment. The entrepreneurial world is characterized by uncertainly, information deficits and randomness. Real world entrepreneurs tend to be extrinsically and intrinsically motivated. The struggle to succeed -despite many setbacks- typically requires a high degree of intrinsic motivation for an entrepreneur. Thus, Traction helps create this intrinsic motivation through the use of gamification elements, such as badges, scores and leaderboards. The enjoyment of achievement and exploring while playing Traction tends to create a deeper level of knowledge.



James Bowen, Phd, PMP

Position: Founder

**Company: Experiential Simulations** 

**Short Bio** 

At the age of 21 and while still an undergrad, James co-founded a software company and over the next 20 years managed to build a solid international client base. He has been involved with 10 universities, 4 start-ups, 4 books, and taught over 7000 students. He is the inventor of a few software products. He is currently focused on changing the way we learn through games and simulations.

# What are the most effective uses of Gamification in Learning?

BY JOHN CARLOS LOZANO

Basic gaming principles are well known: challenges, points, rewards. Yet, an important strategy that has the potential to revolutionize training and performance improvement is to approach gamification holistically. Let's step into the shoes of the learner and think about his or her experience.

The first moment of truth occurs on a macro level, when learners first interact with a learning portal. Within the portal, the curriculum (you might call it the portal's nervous system) defines and connects all the learning paths. If the curriculum is difficult to understand, it's a de-motivator: think back to college when you tried to figure out the right classes you needed to graduate. An easy and engaging user experience will guide and motivate learners, which we know is the key to the portal's adoption.

This is where gamification is your friend. Gamification helps learners interact with the curriculum in a different way, and forces portal designers to think more critically about user interface, improving the experience. Here's just one example: allow learners to collect badges by completing certain courses. Badges in turn increase the learner's overall rank, and unlock other more challenging courses. Now, learners have a clear picture of the path ahead of them and have fun along the way.

The second moment of truth happens at the micro level, when learners experience their first learning event. At this level, a reward system provides guidance and engagement similar to the portal (macro) level. A sales course we recently developed had the goal of dispelling misconceptions about a product line: if learners could correctly identify the client's misconceptions, they would earn a medal and unlock a humorous 3D animated video.

When thinking gamification, think holistically. Create a fun and engaging user experience, while guiding and motivating learners to acquire the knowledge and skills that will improve their performance, and you will accomplish your overall business objectives. It's a win-win situation!

Discover more effective gamification techniques from John-Carlos at the SweetRush website: Creative Design for Engagement.



John Carlos Lozano

**Position:** Creative Director

Company: SweetRush

**Short Bio** 

John-Carlos Lozano is the Creative Director at SweetRush. He is the driving force in exploring and developing higher levels of custom interactivity, simulation, and gamification in learning for a long list of clients, including Bridgestone, Petco, and Bank of America. With a dual degree in graphic design and illustration/animation, he is an extraordinary artist, and a passionate learner, leader, and teacher. He sets the bar of quality, never accepts status quo, and constantly pushes his phenomenally talented team of artists, designers, and animators to reach higher. John-Carlos is impressive, humble, personable, patient, and consultative and, just like on his surf board, always ready to take on a new wave.

He can be reached at john-carlos@sweetrush.com.

# What are the most effective uses of Gamification in Learning?

BY KARL M. KAPP

Why are games fun? Why do we engage in games? The answer is because they have the elements of challenge, mastery, fun and socialization. These are the elements of games that we can leveraged to promote learning.

An example of this in a classroom setting is to use game elements in a presentation. First divide the audience into two teams and give them instructions on how to use their cell phones to text answers via an audience response system (I use PollEverywhere.com). Then, ask a question and have audience members respond to the question via a text answer. In real-time the learners can see their teams' answers as a percentage of respondents for each choice versus the other teams' answers. This allows learners to feel they are part of a larger social group (their team) and they are challenged to answer the questions. After all the audience responses are collected, reveal the correct answer. Whenever I use this technique, I find a great deal of laughter and fun during the presentation because the elements of games keep it fun as well as educational.

Another example is to start the learning event with a challenge. Humans love challenges and it's a large part of why we play games and it is a great design tool for creating gamification. So rather than start an eLearning lesson or classroom lecture with a list of objectives, instead, start with a challenge. For example here are two typical objectives for teaching skills required during an audit:

- Adhere to the proper policy for providing information to clients
- Understand what is permissible to share with clients and what is not

Scrap the objectives and provide the learner with a challenge:

You are gathering data during the first day of an audit. During lunch, Mary approaches you and tells you that she has something important to discuss. The two of you go to your office and she makes an accusation that the VP of Finance is hiding an account...

What is the first thing you should do?

Which learning environment would you rather step into? You can still study the proper policy and what can be shared with clients, but now you are doing it in the context of a challenge and a story and it is far more engaging than learning content listed in a bulleted format and more educationally sound.

Effective gamification taps into emotions, challenge, socialization and mastery.



Karl M. Kapp

**Position:** Professor of Instructional Technology, Author, Consultant

Company: Bloomsburg University in Bloomsburg, PA

#### **Short Bio**

Karl M. Kapp, Ed.D., CFPIM, CIRM, is an internationally known scholar, writer and expert on the convergence of learning, technology and business operations. Karl is a full-time professor of instructional technology at Bloomsburg University in Bloomsburg, PA.

He has written two books on gamification and learning, "The Gamification of Learning and Instruction: Game-Based Methods and Strategies for Training and Education" and is one of the co-authors of the accompanying Fieldbook "The Gamification of Learning and Instruction Fieldbook: Theory Into Practice" with Rich Mesh and Lucas Blair.

You can visit his website at: karlkapp.com

# What are the most effective uses of Gamification in Learning?

BY KIRSTY CHADWICK

Gamification is an extremely effective concept that helps learners retain the maximum amount of information by providing them with audio and visual stimulants, and encouraging them to explore their environment in order to attain rewards. Gamification enables learning at a faster pace in a forgiving environment, which allows for risk-free mistakes. Even if you're not a gamer, you are likely to be intrigued by the tasks presented in a gamified training course, and this will encourage you to continue exploring.

Recently we created a training course for a client that contained a number of legal terms that employees were struggling to digest. The gamified solution that we provided them with was an island where learners had to explore and complete tasks in order to be able to move to the next part of the game. The legal terms were turned into fun quizzes with visual aids to help learners remember what they had been taught. Finding all the vital information on this island required them to use their own initiative to figure out where to go and what to do next. As they completed the tasks, they were given immediate feedback, which encouraged them to continue to their quest.

Gamification transforms the chore of seemingly tedious training into employee interest and enthusiasm.



Kirsty Chadwick

Position: Founder & Chair

**Company: The Training Room Online** 

Short Bio

Kirsty Chadwick is the Founder & Chair of the e-learning design and development company, The Training Room Online. With just over 20 years' experience in the field of education, Kirsty has developed a keen sense for overcoming learning challenges. She knew from a very young age that she wanted to be involved in developing people and helping them grow, and while in London, she was introduced to the possibilities of e-learning.

Kirsty has spoken internationally on incorporating technology into training, and is passionate about developing people. Before establishing The Training Room Online in 2008, Kirsty worked in the financial sector, managing a successful mortgage brokerage for 6 years. The Training Room Online was founded when she saw a need for alternative training solutions in South Africa. Using the latest cutting-edge technology, The Training Room Online provides customised e-learning solutions to both the private and public sectors and is dedicated to providing personal and professional service to all their clients.

Kirsty plays a vital role in new business development, key account management and the international expansion of the company and she often travels to other countries as a result thereof. She has chosen to surround herself with colleagues who share her passion for learning, and together, they are effecting change in the field of education by giving back to the communities, empowering people and breaking negative cycles. Working across various industries, from corporate to industrial, has equipped Kirsty and The Training Room Online with a unique skillset that is offered to each individual client. Kirsty believes that the key to overcoming challenges and difficulties is to be proactive and always strive to give your best.

## What are the most effective uses of Gamification in Learning?

BY MARIGO RAFTOPOULOS

#### SThe Learner as a Hero

Engagement and motivation are at the heart of the gamification of learning. The learning industry has been built on a solid platform of efficiency, accuracy and throughput. However, what we need now is to think more like game designers, so that we move away from a content-push approach to one that entices people on a quest to learn.

I had been using games and game elements in my corporate work for a long time. Nevertheless, it wasn't until my son encountered 'learning difficulties' at school that I truly appreciated the power of games to transform the environments in which we learn. After trying many different ways to engage him with learning, it was playing the game of Civilization that provided an immersive environment that enabled him to learn. We soon discovered that it wasn't my son that had the learning difficulty, but the environment that had a teaching difficulty.

The game of Civilization, like most well-designed games, tap key intrinsic motivators that hold the player during gameplay (and in my son's case, to learn how to read and do math). For example:

- The player is a hero on a journey to build an empire, who then...
- Solves a series of problems that will grow, improve and defend the empire, who then...
- Encounters a series of challenges that include exploration, warfare, trade, diplomacy, resource allocation and advancing technology

Notice that I didn't mention game mechanics? They are only there to provide feedback on performance and results and are not the core experience. The most effective use of gamification in learning is to create an overall context and narrative, and then select the most appropriate game elements to create an immersive experience to take a player on a journey.

My advice to learning professionals when working with software vendors, subject matter experts, instructional designers and stakeholders is to take control over their project:

- You are designing learning experiences, therefore what sort of off-line, augmented, playful and gameful experiences are you using to complement your traditional e-learning modules?
- Take another look at your learner personas and rebuild them a different way. What sort of 'players' are they? What motivates them? What is their hero's journey?
- What is your organisation's story, and is your learning woven into its fabric? This makes all your organisational learning meaningful and purposeful to your learners.
- There is no boring content, only boring delivery.

This approach requires a systemic rethink and redesign of how we engage and motivate people to learn. A great start is to think of instructors as game masters, and our learners as players so we can begin to challenge traditional assumptions about learning and instruction to create better experiences for our learners.



Marigo Raftopoulos

**Position:** Founder and CEO

Company: Strategic | Games | Lab

**Short Bio** 

Marigo is a strategic business advisor specialising in innovation using games, gamification, systems thinking and experience design. Marigo is the founder and CEO of Strategic | Games | Lab, cofounder and co-chair of Games for Change Australia-New Zealand, and advisor to several technology incubators and start-ups. Marigo works with a wide range of global clients in accelerating innovation and organisational development using the tools of engagement that are fundamental to game design and gamification.

Marigo holds a Bachelor of Economics degree and a Master of Business Administration from Monash University in Melbourne, Australia, and an Executive Certificate in Systems Dynamics from the MIT Sloan Business School, Boston MA. Marigo is currently researching for her PhD in the gamification of enterprise innovation at RMIT University in Melbourne.

# What are the most effective uses of Gamification in Learning?

BY MARINA ARSHAVSKIY

I believe that gamification is very useful for increasing employee engagement, developing leadership skills, and encouraging cultural changes.

I look at gamification as the application of gaming mechanics to non-gaming environments. For example, gaming elements, such as points, badges, achievements, competition, etc., can be easily transferred to real life. Think of credit cards: the more you shop, the more points you get. Then, these points can be redeemed for cash, gift cards, etc. You are much more likely to use the same credit card if you receive points that add up to rewards.

ELearning gamification should resemble real-life situations and experiences. It should be fun and engaging. The luxury hotel chain Marriott offers a gaming application called "My Marriot Hotel" to recruit employees. As part of the game, individuals can create their own hotel restaurant, purchase supplies for the kitchen, manage orders from the chefs, and even hire staff. Players are motivated by a point system—players gain points if the customers are satisfied, and lose them if they provide poor service. The goal is to help people acquire new knowledge and skills and apply that newly acquired knowledge to the real hotel to fill one of the many job openings available across the globe. The "My Marriot Hotel" game contains the essential elements of gamification, including goal-setting, an instant feedback system, interactive competition, virtual rewards, and "leveling" up within a program or application.

When instructional designers create games, they should try to extract the motivational techniques from these games and use them for life-applicable learning. Gamification works much better than traditional training methods because people typically enjoy actively engaging and competing with others. Games provide safe environments for practice, while teaching essential knowledge and skills.



#### Marina Arshavskiy

Position: Owner of Your ELearning World, Instructional

Designer, eLearning Specialist

**Company: Your ELearning World** 

#### Short Bio

Marina Arshavskiy is the owner of Your eLearning World, an eLearning company committed to helping organizations become more effective, by creating groundbreaking, result-oriented learning solutions. Marina has extensively consulted private organizations and government entities, both in the United States and abroad. Her course designs have won multiple awards and helped take organizations to the next level. Marina has been passionately involved in instructional design and eLearning for nearly a decade, and is also the author of an extremely insightful book on the subject, "Instructional Design for eLearning: Essential guide to creating successful eLearning courses". Marina's major area of expertise is the design of innovative eLearning courses that bring results and improve performance.

You can read her blog at: www.yourelearningworld.com/blog

# What are the most effective uses of Gamification in Learning?

BY MARIO HERGER

When I watch my young children exploring the world, they literally kill themselves out of curiosity, if my wife and me weren't keeping them from getting seriously hurt. Nothing is safe from our three boys, as they touch, explore, and play with things. And have fun. But when they will become teenagers, they will just hang in the classroom like rotten meat. If we destroy their natural curiosity, they will become totally unengaged and cynical. Nothing would seem to engage them anymore, except videogames. Here they can spend hours playing, engaging, and learning; but not in the traditional way. When do you remember reading a manual teaching you how to play Angry Birds or Candy Crush?

Play is important for learning. According to a report on educational games presented by Don Menn at the 2006 Summit of the Federation of American Scientists, students recall just 10% of what they read and 20% of what they hear. If there are visuals accompanying an oral presentation, the number rises to 30%, and if they observe someone carrying out an action while explaining it, 50%. But students remember 90% "if they do the job themselves, even if only as a simulation".

So why do we still design our educational systems in a way that actually kills curiosity and doesn't emphasize on immersive experiences? Such a traditional design wastes a tremendous amount of human potential and it's time we upgrade our 19th century education system to the 21st. For that we have to overcome prejudices (we have serious work to do and no time for fun), and accept that teachers and teaching need to change.

Good teachers knew that all along, and the lessons that Mary Poppins taught us are more than just fiction. Keep the play in learning, and avoid killing curiosity.



Mario Herger

Position: Founder & CEO

**Company: Enterprise Gamification Consultancy LLC** 

**Short Bio** 

Mario Herger is the founder and partner of Enterprise Gamification Consultancy LLC. He has served as Senior Innovation Strategist at SAP Labs in Palo Alto, California and Global Head of the Gamification Initiative at SAP, where he had worked for 15 years. In 2013, he co-founded the Austrian Innovation Center Silicon Valley (AICSV).

As the Head of the Gamification Initiative at SAP he has supported the gamification efforts of all departments, such as those of Sustainability, On Demand, Mobile, HR, Training & Education, Banking, etc. He raised awareness around gamification, by organizing and leading innovation events, holding dozens of workshops, working with gamification platform and service providers and game studios, consulting and advising organizations, and incorporating gamification into SAP's strategy.

# What are the most effective uses of Gamification in Learning?

BY MICHAEL HUGOS

Techniques from real-time strategy games (RTSs) and massively multiplayer online games (MMOs) offer field-tested examples for teaching complex skills to large numbers of people in a way that is engaging, and encourages them to continue learning. Such games employ two key techniques. The first one is the use of 3D virtual worlds to show players what is happening. These 3D virtual worlds are highly effective because the human brain is capable of handling enormous amounts of data if it is presented as moving three dimensional images; that's how we see the real world. The second technique is the use of heads-up displays (HUDs) that provide players with real-time displays of data in the form of graphs and numbers. Players can customize their HUDs to get the information they need.

RTS and MMO games are, in effect, interactive simulations where players learn by doing. They try things, and see what works and what does not. And they get to practice what does work, and get better and better. This speaks directly to that old saying, "Tell me, and I'll forget. Show me, and I'll remember. Involve me, and I'll learn."

My company employs techniques from these games in an online learning application called **SCM Globe**. It is an interactive simulation that provides a 3D virtual world and customizable HUD to enable students to design and simulate the operations of real or fictional company supply chains. Using simulation results, students improve the design of their supply chains until they achieve the results they want. In the process they learn about the operations of global supply chains. As students design supply chains and simulate their operations, they experience the challenges and dilemmas that all supply chain managers encounter. Students learn by doing, and can experience frustration in the process of finding out what works. Yet, I notice that whatever happens, students start speaking and thinking like real supply chain managers as they describe their problems and discuss possible solutions. In doing so, they are integrating large amounts of information and achieving levels of professional understanding every bit as relevant in the real world as in the simulated world of SCM Globe. Students are involved and learning.



Michael Hugos

**Position:** Managing Principal Company: SCM Globe Corp.

Short Bio

Michael Hugos is an author, speaker and principal at SCM Globe. His work combines ideas from systems thinking and game theory to devise elegant solutions to complex problems. Building on his professional experience in information technology and supply chain management, he has developed a game-based design and simulation application used in universities and certificate programs around the world to meet the growing demand to educate people in supply chain management. His undergraduate degree is in architecture and urban planning, while he earned his MBA from Northwestern University's Kellogg School of Management.

His book *Essentials of Supply Chain Management* is reported by Amazon.com as the best selling supply chain book worldwide since 2004. His newest book is *Enterprise Games: Using Game Mechanics to Build a Better Business*.

# What are the most effective uses of Gamification in Learning?

BY MICHAEL OSBORNE

Ten years ago, classroom-based business simulations were novel and intriguing. Today, the world has changed. More and more companies now look online for training. Serious games and e-learning have become more mainstream and this is a trend that is becoming increasingly mobile. Keeping up-to-date with technology trends is essential for any business and for ProfitAbility, this is no different.

My role at ProfitAbility has been to create an online platform to digitise existing and creating new business simulations. So, when moving online, what changes? Why not do a straight translation?

The answer, in short, is the **User Experience (UX)**. In the classroom, a large group of participants split into competitive teams and determined to outperform each other generates a huge buzz. Take that away, disperse the teams, and what are you left with? The simulation can still work the same, but the experience is very different. Suddenly you're on your own - no friends to ask, no Facilitator to guide you or instruct you on what do next. Finding yourself in this situation is very daunting – off-putting even. So how do you maintain the participants' interest and keep them motivated? How do you make the "actions to complete" obvious to the user and show their progression? The solution is to **gamify!** 

#### Gamification can massively boost participant and client engagement!

The most effective uses of gamification in learning are:

- Illustrating progress
- Increasing engagement
- Creating challenges
- Instilling a sense of accomplishment

Gamification can make e-learning beautifully intuitive. For example, building in 'levels' is not just a great way of showing progress, it also allows you to start with the basics and get more complex as their understanding of the content develops.

By gamifying, you harness the power of what humans inherently love to do – play games.



#### Michael Osborne

Position: Simulation Technology Developer

Company: Red F Design and ProfitAbility Learning & Development Services

#### Short Bio

Mike is a Games Technology graduate from the University of the West of England (UWE), Bristol, UK. He specializes in design, particularly for games, and has a keen interest in gamification and eLearning.

Mike has spent the last few years working for ProfitAbility Learning & Development Services, developing an online business simulation platform.

You can visit his website at: www.mikeozzy.co.uk.

# What are the most effective uses of Gamification in Learning?

BY NATALIE DENMEADE

Gamification has been simply defined as the use of game-like elements in non-game settings. However, ever since the serpent challenged Eve to imagine what life would be like if she partook of the tree of knowledge, people interested in behaviour changes (aka educators) have been implementing a whole range of game-like elements: imaginative role-play, simulation, rewards, goals, challenges, etc.

I am not convinced that education is a 'non-game context'; according to Shakespeare neither is life, as we are all merely players.

Educators know that play is the highest form of research. I prefer this definition: "Gamification is the process of using game like thinking and dynamics to engage audiences and solve problems". Our western education system has always been gamified at a systemic level, but it will evolve into a 'post-industrial' phase. We have new cultural and global problems to solve and educators agree that there is room for improvement in engagement levels; this is where education and games diverge.

Personally I am green with envy at game designers who can attract such high rates of engagement and build resilience in their players. I envy their budgets and their brilliance at invoking evolutionary human traits to their benefit. I admire the respect game designers have attributed to players and hence avoided the condescension and authoritarianism often associated with teachers.

So, I intend to deconstruct their magical formulas and steal their insights and modify my own teaching practices accordingly. To date I have discerned that the main way gamification reshapes learning is by permitting learners to set and understand their own goals; by re-defining failure; and by changing feedback to be fair, frequent, granular, and not fully contingent on the teacher. Codeacademy.com is the best example I have seen to empower learners to feel like a hero through gamification.



Natalie Denmeade

**Position:** Gamification Consultant

Company: Moojoo

**Short Bio** 

Natalie works as an educational gamification consultant. She is interested in researching emerging technologies and how gamification can transform traditional assessment and delivery methods to enable higher engagement and completion. Her technical experience covers Moodle Learning Management System, Mobile Computing, and Web Technologies. Her recently published "Moodle for Motivation Tool Guide" has been distributed widely as a useful tool to promote diversity in eAssessment using gamification strategies. She has developed an award-winning Moodle course using gamification principles. She has recently managed two National VET eLearning Strategy projects that explored mobile learning and Google Apps for Education. Her latest project involves a next-level gamified Knowledge Platform developed to transfer the ownership and boundaries from isolated and institutionalised to a collaborative learner driven system.

## What are the most effective uses of Gamification in Learning?

BY DR. PANAGIOTIS ZAHARIAS

My experience with gamification for the advancement of learning comes from two experiments that I conducted in two separate classes in a higher education environment. Both had to do with teaching IT skills. The first one was a class about web design:

- I designed the course and the activities, so as to have the Codecademy platform as the main platform for teaching and practicing web design skills (Html, CSS and Javascript). Codecademy offers game mechanics such as points and badges and the vast majority of the students (78%) stated that they highly enjoyed earning points and badges and that it was something to keep them engaged.
- Besides using the platform in the classroom, I was asking students to practice at home and send me a snapshot of their dashboard just before every class. By checking this, I developed a leaderboard where students on top were the ones with many points and badges. Although not all of them liked this kind of competition (around 50% said that they liked the leaderboard), most of them (78%) said that this was a motivating factor for more hard work and participation outside the classroom.

The second class was an Introduction to Programming. Edmodo was chosen as the main platform for communication and management of learning activities. The course was gamified through the following mechanics:

- There was a mission (programming exercise) every week for the students outside the classroom. Upon completion of the mission and the submission of their work, students were gaining experience points and according to their performance they were awarded with Edmodo badges (i.e. hard worker, student of the month, homework helper etc.).
- Participation and engagement was very high, as 87% of the students followed the missions and submitted their work. Almost 60% said that awarding badges was a good thing and a motivating factor, while 93% liked the missions and the fact that they gained experience points.

**Lessons learned:** Although gamification is not effective for everyone and besides the fact that a limited gamification approach was implemented (limited to points, badges and leaderboards), I saw that most of the students enjoyed it and it seems that benefits in terms of active participation and engagement are great. It is evident that more advanced approaches are needed to further explore the learning effectiveness of gamification in education. First empirical data show that it is worth the effort.



#### Dr. Panagiotis Zaharias

**Position:** UX Researcher | Adjunct professor

Company:

**Short Bio** 

Panagiotis holds a Ph.D. degree in Information Systems from the Department of Management Science & Technology at Athens University of Economics and Business, where he also received a first degree in Informatics and a Masters' degree in Information Systems. His main research interests are focused on User Experience and usability evaluation methods, e-learning design and evaluation, Gamification and serious games / Game-Based Learning. He has published more than 50 papers in scientific journals and conference proceedings. He is currently an adjunct professor of Information Systems and a freelance UX and e-learning consultant.

You can visit his **website** or contact him at **pz@aueb.gr**.

# What are the most effective uses of Gamification in Learning?

BY ROMAN RACKWITZ

When I failed my 8th grade, most adults thought that the reason was simply that I had been distracted by videogames. Although I spent much less time playing than doing sports, it was (and obviously still is) the common perception that often 'games' are responsible for undesirable results in school.

But now, just for a second, let's change this perspective. Think about this: Why blame a game for being so engaging and motivating that school seems to be so damn boring in comparison to it? Shouldn't we learn from the best and try to fix what's wrong with education? Or in a nutshell: "Don't blame the gamer, blame the 'game'."

Games are artificial learning environments. There is no game without a challenge that you have to overcome. We love to be challenged. Our brain is a learning engine and it was developed only for this one purpose.

By deconstructing games and reverse-engineering what makes them successful to engage, challenge and keep us focused you should consider this:

- 1. You have to know the individual students and you have to design their own 'Path to Mastery' adapted to their personal skills & needs.
- 2. Provide real-time feedback. Learning means trial and error and only by providing real-time feedback we feel comfortable to try something new and difficult because we can adjust our actions accordingly. In school normally we get feedback when it is already too late, right?
- 3. Respect the psychology of our species, e.g. build on progress rather than penalty. If students have the feeling that they can only progress but not lose already earned achievements they become much more confident and gain a feeling of autonomy.
- 4. Context beats pure content. We humans are bad at just memorizing stuff. There is a reason why games are created around themes, why we remember great stories better than simple bullet points, or why storytelling is such a powerful marketing tool. Embrace intrinsic motivators like power, autonomy and belonging.



#### Roman Rackwitz

**Position:** Founder of Engaginglab & Partner at Enterprise Gamification Consultancy (EGC).

Company: Engaginglab

Short Bio

Roman Rackwitz is a Gamification Pioneer from Germany.

While leading Europe's first established Full-Service-Gamification-Agency and being a partner at EGC, the international Consultancy focused totally on Gamification, EGC, he is also responsible for the Germany's first official Gamification lecture at a Business University.

To grow awareness around the topic of Gamification he also founded GamifyCon, an annual Gamification Conference in Germany and co-founded GamFed, the only Gamification Association in the world, dedicated to areas like ethics, industry-standards, legal issues, and more.

"While engineering is the secret power of an industrialzed society, Gamification has the potential to become the secret power for a knowledge society. Engineering meets Enjoyneering."

# What are the most effective uses of Gamification in Learning?

BY ROSS SMITH

Play is a natural way for animals to learn. From sparring tiger cubs to roly-poly puppies, all animals have used play to learn the skills of adulthood. Games provide structure and rules for play –invented rules help keep the participants engaged and motivated. As we narrow down to the human world of learning, and sprinkle in the current technological capabilities, the mechanics of games become an intriguing tool to assist in motivation and engagement. In 1958, Michael Polanyi introduced the idea of "tacit knowledge" in his work on "Personal Knowledge" –and while game mechanics can help measure explicit knowledge, it's the ability of games to motivate the acquisition of tacit knowledge that is the most exciting.

Tacit knowledge is that we cannot describe –how to ride a bike for example– and is not a realm of formal study. However, in an organization, this is the most impactful on productivity, retention, organizational health and effectiveness. Game mechanics help attract, direct, and engage people in behaviors that drive organizational learning and the spread of tacit knowledge. The existence of games at work are an aberration –unexpected, and thereby attractive in their uniqueness– and incredibly effective in motivating behaviors designed to encourage the spread of tacit knowledge.

Practically speaking, much has been written of our work in assessing the linguistic quality of Windows (link) –but is a great example of how gamification can motivate the transfer of tacit knowledge (software language localization in this case) via the use of game elements. Beyond this, there are hundreds of examples of using games to help keep learners engaged. Our work has been focused on the use of games in the enterprise, and the ability of game mechanics to motivate employees to engage and collaborate –to share their tacit knowledge– is unparalleled. The organizational rewards are obvious, but to be able to offer a return to employees is the value that game mechanics can offer. As we think about 21st century learning, particularly in business, the idea of using play and games to help employees share tacit knowledge is as natural as what the sparring tiger cubs have already learned –games and play can help us learn from each other what we don't realize we know. Tacit knowledge is required to succeed in life, and as an organization.



#### Ross Smith

Position: Director of Test

Company: Skype Division, Microsoft

**Short Bio** 

Ross Smith really enjoys getting a paycheck to "play" with software for 25 years now, over 20 at Microsoft. Most of his career has been in testing and QA roles- including Test Architect. Prior to joining Lync/Skype – he spent 17 years in either Windows or Office. He is one of the authors of "The Practical Guide to Defect Prevention" and holds six patents, latest in Nov, 2012. 42projects has aspired to promote cultural change, "bring buzz and laughter to the hallways".

In December 2011, he was invited to the White House for a discussion on women in STEM. He has blogged on "Take the Work out of Work". The team's unique approach to reorg - WeOrg: The Freedom to Choose, and using games to raise funds for disaster relief Communicate Hope case study have won awards. His weekly newsletters on management innovation are here. Gamification Summit 2013 here.

PSFK: How Microsoft Builds Employee Trust in the Workplace and Engaging Leader series interview iTunes

American Journal of Play: How Play and Games Transform the Culture of Work

He believes strongly that the "Future of Work is Play". Productivity games work covered in Forbes and Forrester and Microsoft Next.

The London School of Business published a case study:, "Game On: Theory Y meets Generation Y" More on organizational trust - Trusted Advisor and Financial Times case study

## What are the most effective uses of Gamification in Learning?

BY B. SANTHOSH KUMAR

We, human beings, are natural 'gamers'! In our childhood, we freely exhibit and experience our liking for games. However, when we grow up, while some of us are lucky enough to carry this interest forward, others let go of it due to various reasons. However, the fact is that most of us still have a liking to play games if and when given an opportunity. This, as we know, is basically because games are fun, engaging, challenging, and, above all, motivating. Last but not the least, games allow us to fail again and again, and reflect on these failures till we win by going through multiple 'lives', which would otherwise only be a beautiful dream in our real lives.

Those of us who think we're not for games, are actually (unknowingly) engaging with interesting elements of gamification while interacting with social networking sites and others (in the form of Progress Bars, Likes, Ratings, etc.).

In my two decades of career in Learning Design (in the role of researching, designing, managing, and delivering 'learning' for some of the best known schools, institutions, and organizations worldwide), I've experienced the magical power of gamification in learning, and was lucky enough to work on opportunities to tap its power to help make learning 'fun' and 'engaging' (for kids and for adults, in face-to-face sessions and in online learning courses). All this happened much before this methodology was seriously considered as a valid learning strategy by the industry. Even though the methodologies vary, I've seen gamification to be highly powerful for learners of any age, and for the different modes of learning.

Gamification is evolving to become one of the most powerful driving forces for learner engagement. Here are some of the most effective uses of Gamification in workplace learning:

- Gamification is the future of workplace learning. It can power up 'learning', which like many other areas, fosters active engagement. Gamified learning
  is already helping make organizational L&D areas, such as onboarding, sales training, safety training, and compliance training (and even the more
  complex areas such as knowledge management, process adherence, business ethics, and business continuity management) engaging and impactful,
  resulting in highly productive employees and meaningful ROIs for organizations across the world.
- Gamification can boost the adoption of mobile learning in workplaces. It can achieve this by adding a layer of competition to the byte-sized, just-in-time and performance support learning interventions that are specifically made available for learners through their workplace app stores.
- Gamification can impact informal (on-the-job) and social learning (peer learning) in workplaces by bringing in excitement into the collaborative learning space. It can be one of the most effective driving factors in this age of self-directed learning, where learners themselves take responsibility for their learning activities.
- Gamification can power up corporate MOOCs by fostering learner engagement, which otherwise could pose various challenges. Some of the more
  complex gamification elements and mechanics (such as competitions and bonuses) are powerful enough to prevent learners from dropping out of
  corporate MOOCs by making learning challenging and addictive.
- Gamification can enhance the effectiveness of flipped classrooms in workplaces by motivating learners to do their individual research (as part of their homework), as well as collaborative practice and application (as part of their classwork), in a highly compelling and competitive manner.
- Gamification can boost Bring-Your-Own-Devices (BYOD) in workplaces, by motivating learners to engage more with workplace learning interventions.

To conclude, it is exciting to see how gamification is all set to reshape learning. As Karl Kapp said in his interview with Learnnovators, "Gamification will disrupt many of today's learning approaches". It wouldn't be a surprise to see points and badges (and other complex gamification elements) playing a major role in our profile credentials and hiring decisions in the near future. However, as being widely discussed, only 'good' gamification will succeed, for which proper design is the key. And, a proper gamification design demands a diverse and distinctive set of qualities and competencies. As Learning Designers, this is the time for us to step up to upskill ourselves to design and deliver effective gamified learning experiences for today's workplaces.



B. Santhosh Kumar

Position: Vice President

Company: Learnnovators

**Short Bio** 

Santhosh Kumar is Vice President at Learnnovators – a cool learning solutions company based out of Chennai, India.

Santhosh carries with him around 20 years of experience in the education and learning business, having worked in Design & Development, Delivery, and Management. He has worked with leading learning and education companies in the world including Futurekids, The Fourth R, NIIT, Hurix Systems, and Expertus. He has also authored a set of books for computer learning (with a thematic and activity-based approach) that are being used for over ten years by thousands of schools across India.

As part of his work at Learnnovators, Santhosh writes regularly on his company blog on emerging trends in the learning landscape. He also manages the company LinkedIn group, and is an active contributor sharing his insights on the different aspects of 'learning'.

Santhosh is passionate about exploring the possibilities of emerging technologies to help people experience learning in 'natural' ways.

# What are the most effective uses of Gamification in Learning?

BY SHARON BOLLER

Games are powerful engagement tools. They trigger emotion, fuel competitive spirit (or a cooperative spirit if designed as a cooperative game), and immerse us. These attributes make them powerful as learning tools, too. I have used games –or gamification techniques– in a variety of situations. Here are four situations that I think are all good uses of either a game or a gamification of the learning experience:

- People need to know something "cold" (e.g. from memory, sort of like multiplication tables) and it's not information that is enjoyable or easy to learn on its own.
- People's hearts and emotions need to be affected in order to open up to new ways of viewing or understanding something.
- People need a safe way to evaluate their skills and behaviors and to improve them. Example: People who think they are stellar at project management can play a project management game and get an entirely new insight into how they ACTUALLY behave when faced with constraints or pressures.
- People need ongoing motivation in order to stay engaged in a long-term endeavor (a certification process, a long-term company initiative).

Example: We worked with a global company this year to prepare sales reps for the launch of a new product AND their first-ever Android Smartphones. We created a mobile game that helped them build their product knowledge, as well as skills in navigating the phone and accessing information. They loved competing, achieving new levels, and seeing their scores go up. The game's challenges and feedback kept them highly engaged, and by the end of the game, they were adept at linking product features and benefits to specific customer questions and objections AND in using their phones.



Sharon Boller

Position: President

Company: Bottom-Line Performance, Inc.

**Short Bio** 

Sharon is president of Bottom-Line Performance, Inc., a learning design company she founded in 1995. She is also a passionate game player and designer who ardently believes in the power games have to help us learn.

She is the lead designer of the Knowledge Guru game engine, a game engine product that started being developed in 2009 and was launched in the market at the end of 2012.

You can read her blogs at: www.bottomlineperformance.com/lolblog/ and www.theknowledgeguru.com/blog/

# What are the most effective uses of Gamification in Learning?

BY SHERRY JONES

Digital Game-Based Learning (DGBL) is the pedagogical method of teaching theories or concepts through play in digital simulations. Unlike gamification, which is the layering of game mechanics on non-game environments, DGBL calls for the direct use of digital games as educational texts (game genres such as adventure, platformer, Al, interactive fiction, mmorpg, sandbox, and more can be used). I assign digital games in my college courses to provide students with safe, virtual environments for engaging in playful problem solving, while cultivating their creative and critical thinking skills.

One of my most well received DGBL assignments employs the first person interactive fiction game, The Stanley Parable, for teaching the philosophical theories of free will and determinism. The Stanley Parable is a narrative-driven game that places the responsibility of choice on the player. The premise of the game is simple: Stanley must make certain choices in order to recall why he wakes up alone in an empty office building. During gameplay, the player is constantly prompted by a non-visible omniscient narrator to make certain choices, which according to the narrator are pre-destined. The player must make some choices to progress, but has the option of either following or ignoring the narrator's persistent, unsolicited advice. Several outcomes are possible depending on the player's choices.

To complete my DGBL assignment, my philosophy students must play through The Stanley Parable, and write an analytical essay on whether or not Stanley has free will. My students revealed that they felt the need to conduct extensive research on free will and determinism to properly analyze the game that they enjoyed. Essentially, I use the game to help students recognize how philosophy applies to understanding the world, and to raise the rigor of their writing. My students' enthusiastic responses make the game a must play in my philosophy courses.



Sherry Jones

**Position:** Philosophy, Rhetoric, and Game Studies

Company: Colorado Community College System (CCCS)

#### Short Bio

Sherry Jones is a Philosophy, Rhetoric, and Game Studies Instructor for the University of Colorado, Denver and Colorado Community College System, and has presented over 40 conference sessions and webinars on digital game-based learning, gamification, and project-based learning for higher education. She also serves as the Project Leader, UX Designer, and Instructor for rgMOOC (Rhetoric and Game-Based MOOC), Chief Technology Officer for the Writing and Technology Council, and Judge for the 2013 and 2014 SIIA CODIE Awards in Best Education Game and Simulation Category. Her upcoming publication is on Composition on a New Scale: Game Studies and Massive Open Online Composition for CCCC 2014.

You can visit her visual bio at: <a href="http://vizify.com/sherryjones">http://vizify.com/sherryjones</a>

# What are the most effective uses of Gamification in Learning?

BY T. RAVEN MEYERS

Gamification techniques promote efficient learning by maximizing user engagement in creative ways that traditional learning cannot match. In our primary niche (medical education), medical students often must endure academic torture by studying complex medical science concepts through the traditional medium of organized study, including attending boring classes, reading dense textbooks, and practicing thousands of arduous vignettes.

While all students must go through this pathway, as indeed this is a rite of passage for them, this process is clearly tedious and most students need to set aside large blocks of time to process their material, often with low retention rates. In early 2014, we released a medical gaming app called "Scrub Wars" that uses action-themed gameplay to promote the retention of high-yield clinical facts for their board and course exams. Studying for exams was facilitated through an eLearning platform (through a mobile iOS and Android app) using gamicifcation techniques (space shooter game) and spaced repetition (concepts purposely repeated strategically to promote long-term retention) to promote micro-learning (studying in small chunks of time in situations that are generally poor study conditions, such as waiting in line or in bed before sleeping) of high-yield material.

Traditionalists often scoff at the idea of using games to promote learning, because they mistakenly assume that the educational program is a substitute for learning through classroom and book study. If this criticism is not immediately addressed through a strategic marketing campaign, then the learning game is potentially doomed and will not get the opportunity to demonstrate its effectiveness. Our company bypassed this erroneous assumption (and the negative press that surely would have followed) by aggressively promoting the app as a supplementary test preparation method, instead of a replacement, to traditional methods of study. Therefore, not only do study techniques that utilize gamification techniques promote learning through an entertaining and engaging medium, but proper marketing of the program as a compliment to traditional study is a necessary prerequisite in order for it to be promoted successfully.



T. Raven Meyers

Position: COO/CEO

Company: Precision Enterprises, LLC and Social Cause Marketing

Short Bio

T. Raven Meyers is the Chief Operating Officer of Precision Enterprises, LLC and the CEO of Social Cause Marketing. She is a strategic marketing and new media professional with a background in design.

# What are the most effective uses of Gamification in Learning?

BY VICKI KUNKEL

Gamification is most effective as part of a long-term business strategy. It's not a one-off event (such as a game); rather, it's applying game mechanics (like motivation, rewards, recognition) to business challenges. Gamification is most effective to affect behavior change or to increase specific skills.

For example, last year I designed a gamification platform for an insurance call center where the business challenge was customer retention, the goal was one-call resolution, and the desired behavior changes were to have call center agents stop putting customers on hold, stop transferring calls, and strategically question and actively listen to customers. (Surveys showed hold times and transfers were the top hot buttons for customers.) Agents were split into teams, and team members earned points for each time they did not transfer a call or place a customer on hold. Double points were given if a customer complaint was resolved with one call.

The company used data to track the performance of each agent and a leaderboard was automatically updated daily. Teams received "super powers" attached to each level they achieved on the leaderboard. One super power was "Super Speed", where they could go right to the front of any line (such as the cafeteria line). Another was "Force Field," where winners could park in the executive-only, temperature-controlled underground garage. (This was a coveted power in both the cold winter months and the hot summer months!) The top super power was "Invisibility" – which was a day off with pay for the ultimate top performers.

For agents who found themselves on the bottom of the leaderboard, the platform would automatically populate short, two-minute "Power Boosters" (video eLearning modules), which gave tips on strategic questioning and listening skills to help agents better identify and solve customer issues on one call.

Three months after the gamification project was implemented, call hold times decreased by 17%; transfers were reduced by 52%, and customer retention increased 31% over pre-gamification levels.



Vicki Kunkel

Position: CEO/Director of Digital Content & eLearning

**Company: Digital Wits** 

Short Bio

Vicki is an award-winning eLearning designer, entrepreneur, researcher and former broadcast journalist. For more than 17 years Vicki owned a digital training company that created employee and consumer eLearning programs for corporations and universities. She also launched an online membership-based university for entrepreneurs that had more than 1100 monthly members and incorporated gamification and an augmented reality product test environment.

Vicki has received numerous accolades and awards for her work, including the "Women with Vision" award from the Women's Bar Association of Illinois for her breakthrough research in behavioral economics, and the "Nalco Innovation Award" for her cutting-edge eLearning programs that incorporated immersive simulation environments, 3D animated avatars, and gamification.

Because of her success in applying behavioral economics research to online entrepreneurship training and gamification, she was invited to be a panelist on the "League of Extraordinary Minds" radio series – along with other business luminaries such as Tony Robbins, Stephen Covey, Michael Gerber, Robert Cialdini and Fran Tarkenton. She is the author of a commercially-published book about how behavioral economics impacts audience reactions to people, products and entertainment.

Vicki currently owns Digital Wits - an eLearning agency that uses gamification, 3D simulation environments and interactive video scenarios to build consumer brands, drive revenues, and increase employee and leadership performance.

You can read her blog at: www.digitalwits.com/el-tv/





