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# GAMIFICATION GLOSSARY

**avatar.** An icon, character, or figure representing a player in the game.

**badge.** A distinct token or symbol used to reward participation or achievement. Badges are earned by completing tasks or meeting specific criteria.

**Bartle's Game Personas.** Categories created by Richard Bartle in 1996 to classify gamers based on their gaming style and behaviors. Categories include: Achievers, Explorers, Gladiators and Socializers.

**achievers.** Players who prefer to gain points, levels, and badges to show off their skills and status.

**explorers.** Players who prefer discovering areas, creating maps, solving puzzles, or learning about hidden places and unknown glitches.

**gladiators.** Players who thrive on competition, the thrill of competition, or hunting weaker players.

**socializers.** These players participate for the social aspect of playing with, and against, others.

**boss battle.** A "boss" in gaming is a villain the hero must face and defeat to advance or win. The player utilizes his or her skills and abilities to defeat the boss.

**coins.** Points or rewards, either literal or fictional, used to represent levels or ranks in the game.

**Easter egg.** An intentional message, treasure, or quest hidden within the game for players to find.

**gamification.** The use of game mechanics in non-game settings to increase efficiency and engagement.

**guild.** A group of people who band together to achieve a common goal.

**HP or health points.** A player's life energy or what they need to remain active in the game.

**LARP.** Stands for live action role-play. Participants physically act out their character's actions.

**leaderboard.** The ranking of players according to points or completion of tasks.

**level up.** The act of a character or player advancing to the next level of ability or status within the game.

**mission.** A task that a player or team of players must complete in order to gain a reward.

**quest.** A series of tasks that a player or team must complete in order to gain a reward.

**RPG.** Stands for role-playing game, a type of game in which players assume the roles of characters in a fictional setting.

**side quest.** A quest that is not part of the main quest or game, but offers a side story or reward for completion.

**XP or experience points.** Points earned by participating in various experiences, challenges, and quests.

# Introduction

By MICHELE HAIKEN

Today, all teachers are considered literacy teachers. Literacy, in all of its dimensions, is the ability to construct meaning from reading, writing, speaking, and listening. Literacy is a lifelong development and we continuously build on our understanding of these complex skills each day. Throughout school, students are interacting with texts (print, visual, digital) to make meaning, build knowledge, and develop an understanding of the world and all its intricacies. For some, this process can appear to be no more than consuming information only to be tested and assessed in order to graduate to the next grade level. Information disseminates from textbooks, PowerPoint presentations, and is regurgitated into worksheets and five-paragraph essays. Sounds boring, right? Maybe you're picturing the scene in *Ferris Bueller's Day Off* when the economics teacher is trying to solicit responses from the students and most are not even engaged. Ben Stein's character states in a monotone voice:

In 1930, the Republican-controlled House of Representatives, in an effort to alleviate the effects of the... Anyone? Anyone?... the Great Depression, passed the... Anyone? Anyone? The tariff bill? The Hawley-Smoot Tariff Act? Which, anyone? Raised or lowered?... raised tariffs, in an effort to collect more revenue for the federal government. Did it work? Anyone? Anyone know the effects? It did not work, and the United States sank deeper into the Great Depression. Today we have a similar debate over this. Anyone know what this is? Class? Anyone? Anyone? (Hughes, 1986)

Thus, the challenge is for teachers to make learning informative, engaging, student driven, and collaborative so students are interacting with information, and asking driving questions they solve themselves. Project-based learning and technology have allowed students and teachers to build literacy-rich learning experiences that encompass critical thinking skills and creativity, and “prepare students to be successful in the various dimensions of their lives” (Gura, 2014). And gamification and game-based

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learning aligns with these same strategies. Gamification is about transforming the classroom environment and regular activities into a game. It empowers creativity, collaboration, and play.

There are numerous ways to bring games and game playing into any content area classroom to promote learning and deepen student understanding. Whether teachers are looking to integrate an aspect of gaming into their class or utilize a game platform across the curriculum, they can introduce elements of gamification to enhance learning and student engagement, tap into Common Core State Standards (CCSS), and address the ISTE Standards for Students. Effective gamification promotes problem solving and collaboration. Games allow a safe place for failure, since failure is an essential source of feedback and learning. Few players quit a game after they lose—their first instinct is to play again to figure how to win the game. We want our students to show grit and continue playing even when learning gets challenging or failure happens.

Gamification isn't about completing worksheets for points, or as Vicki Davis, author of CoolCatTeacher Blog describes, “chocolate covered broccoli.” Facts and information are used as tools for learning and assessment in gamification. Effective games are customized to different learners and students are encouraged to take risks and seek alternative solutions to show what they know. In today's classrooms, it's not only about learning content material—students must experience and build the necessary skills to become creators, innovators, and problem solvers in order to develop critical thinking and improve academic achievement. Applying gamification to reading, writing, speaking, and listening enriches the learning experience for students and promotes thinking “outside of the box” for both teacher and students.

Game theorist, author, and professor, James Paul Gee writes about the elements of good video games and how educators can incorporate these elements in schooling and learning. He states, “challenge and learning are a large part of what makes good video games motivating and entertaining. Humans actually enjoy learning, though sometimes in school you wouldn't know that” (Gee, 2007). In navigating high stakes testing, many teachers have put fun aside for skill-and-drill test preparation. Game-based learning and gamification support critical thinking and diverse learning styles through techniques like cooperative learning, players as producers, problem-based learning, and risk-taking.

*Gamify Literacy* has emerged from my own interest in gamification and my role as a literacy teacher. Three years ago, I attended a local edcamp and went to a workshop on gaming. The person leading the class was an English teacher like myself, and he shared how he used gamification to teach vocabulary. He shared a game platform called *Classcraft* where each of his students is assigned an avatar and every week students are assigned to write a diary entry from the perspective of the avatar about his or her adventures. The key is that the students have to use weekly vocabulary words in their diary entries from *Wordly Wise Workbooks*, a traditional vocabulary workbook. The

more vocabulary words students incorporate into their stories, the more game points they earn. At that moment, I was hooked on gamifying learning. I was enamoured with *Classcraft*'s game platform and the ability for this teacher to develop a creative writing assignment that incorporated rote vocabulary instruction in an exciting way. That edcamp session was a catalyst, like finding an Easter egg that unlocked the unlimited possibilities to teaching, collaboration, and experienced-based learning. I left armed with more questions than answers to how I might bring similar elements of gamification into my own classroom.

I had already been using Think Tac Toes and dabbled in QR code quests, played games on Kahoot, and human Scrabble. Yet, the idea of gamifying my entire class was my quest. I piloted *Classcraft* that spring with my class. I enlisted the gamers in my classroom to help me set up the game and give the other students some pointers for playing, and we got started. I read gaming theorists like Paul Gee and watched TED Talks by Gabe Zichermann (2011) and Brenda Romero (2011) on gaming. Michael Matera's *Explore Like a Pirate* (2015) offered hands-on, adaptable ideas for my classroom that helped me boost gaming experiences with my daily lessons. Weekly Twitter chats for #XPLAP (Explore Like a Pirate) and #games4ed extended my thinking and connected me with remarkable teachers around the globe who were also integrating games and gamification into their classrooms to boost content understanding and promote fun and learning. The weekly chats allowed me to interact with other gamemasters who experimented, integrated, and inspired my own gamification journey with my students. It was during one of our weekly Twitter chats when I tweeted, "We should collaborate on a book to share with the world all the amazing things this group is doing." And that tweet is now a reality. One of my objectives in curating this book is to help educators navigate through game-based learning and gamification, and adapt and adopt gaming strategies that engage students in literacy learning.

This book is organized in three sections. The first section, "Sandbox," includes gamification strategies that can be adapted to any content area classroom. Sandbox is a gaming term that is used to describe an open-ended, go-anywhere style of play employed in games. The chapters in this section address gamification as a classroom tool to promote learning. Sheena Kelly describes how she has gamified research projects with her fifth and sixth grade students. Students must carry out a mission to save the Veritas Galaxy from the Luddites with their brainship. In Aaron Vanek's chapter we learn about live action role-play (LARPing) in the classroom to boost student learning, build communication skills, and teach problem solving. Kip Glazer shares how she creates traditional board games with her ELL students for review and practice of key content area concepts and knowledge. Two of her students' game ideas (LitTwister! and Literary Clue: A Game of Whodunit?) inspire new ways to rethink classroom review and skill practice. In Tisha Richmond's chapter, we learn about the MasterChef missions, badges, and mini challenges she designs for her culinary arts students. Through gamification she is able to inspire creativity, independent learning, and collaboration while students build culinary skills and knowledge. Carrie Baughcum offers key

## Introduction

advice for getting started with gamification. She describes for readers her own process of gamifying the classroom and considerations for successful integration of games and gamification.

Section Two, “Homebrews and Game Sharks” includes descriptions of gaming activities from a wide variety of content area teachers that can be easily adapted for any classroom. Each chapter includes a description, information why to use it, the ISTE Standards that match the learning tool, instructions for how to use it, and examples from classroom teachers. Rachelle Dene Poth shares a scavenger hunt she created for her Spanish students. Robert Daly describes a World War I simulation using *Minecraft*, and Travis Phelps explains how and why to use the game platform, *Classcraft*. An interview with Shawn Young, co-founder and CEO of Classcraft follows Travis’ chapter. I have also shared examples of an *Amazing Race* challenge I created based on Harper Lee’s *To Kill a Mockingbird* that requires students to work cooperatively to gather clues, complete tasks, and articulate their understanding of the text. I also include chapters on boss battles and adventure quests. Quests can be any mini project students work on independently, and in this chapter I share a trivia adventure quest-based on current events. Kristie Orlando-Bangali shares how she uses the game *Grudgeball* in her classroom as a review and cooperative learning activity. Ivan Kaltman describes *Sydney’s World*, a RPG computer game he created about a young girl looking for her father. Players read the story line of the game in order to successfully use strategies to win the game. Games take on many forms from board games, games to be played on SmartBoards, to digital gaming tools and apps. Games are always evolving, expanding, and emerging as per teacher vision and learning outcomes.

The last section of the book, “Cheats,” taps into gamification strategies. Cheats are special codes that allow players to bypass the normal limitations of a game. Typical cheats allow you to gain extra lives, become invincible, and access different stages. Some cheats are built into games, while others only can be accessed using devices like the GameShark. This section includes details about designing effective leaderboards from Chris Hesselbein. Chris addresses the benefits and weaknesses of using leaderboards as a motivational tool for student gamers. Both Angela Elkordy and MJ Linane write about digital badges as gamification tools. Borrowing from the Girls Scouts, Boy Scouts, and the military, badges can be a tool for motivation and even used to map out learning outcomes for students to attain mastery. Scott Garrigan addresses gamification as a way to enhance student motivation and learning through a deeper understanding of game and gamification concepts.

How you read this book is up to you. You can read it from cover to cover, adapting the games and gamification tools described in each chapter. Or you can peruse the chapters in isolation using the tools and content for your own classroom. Literacy strategies are embedded throughout. When I first set out to create this book, it was to bring together some of the educators, researchers, practitioners, and game designers

who inspired me to gamify my own classroom. The contributors of the book teach a wide variety of students from an array of content areas, and many are not just content area specialists, but literacy advocates who use gamification to coach students to be successful readers, writers, and critical thinkers. Teachers must continue to equip students with literacy skills needed to participate, engage, and succeed in our global and digital society. We learn by doing and by making things our own. Gamification is an approach to learning that connects meaningful gaming with content objectives. All of the material presented in the book is adaptable for diverse student learners and across content areas. Model, adapt, play, reflect, revise, and play on. This book was designed to inspire, power up, and boost the love of learning.

Reading far and wide on gamification, participating in weekly Twitter chats, attending ISTE and other game-based conferences, I was inspired to gamify my classroom. With the help of my professional learning network (PLN), and my own students who are video game fanatics, my evolution as a teacher and gamer leveled up from *Jeopardy* PowerPoint games to full-on immersion in *Classcraft*, designing adventure quests, scavenger hunts, and boss battles with each inquiry unit I taught. And yet, there is so much more to learn and do. As I write this introduction and reread each chapter, I'm mapping out a dystopian quest with badges for my students to complete during a dystopian reading unit. My hope is that the ideas presented in this book will activate your own thinking about content area learning and literacy in your classroom, and that gamification is a strategy that inspires students to take charge of their own learning.

**Ready.**

**Set.**

**Game on.**

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# 1

## School Research Goes Galactic

### > Using Game Design to Reimagine Middle School Research Projects

By SHEENA KELLY

#### ISTE Standards for Students

- 1 Empowered Learner.** Students leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences.
- 2 Digital Citizen.** Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
- 3 Knowledge Constructor.** Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.

A colleague recently asked me, “What is gamification?” The first metaphor that sprang to mind was today’s retail shopping experience. Starbucks gamifies your coffee drinking experience by giving you points and rewards for buying drinks, food, and other merchandise. Local grocery stores gamify the chore of grocery shopping by offering special pricing on your favorite foods and giving pennies off your next gas

purchase. I'm sure you can think of even more examples of gamification and other incentive systems at play in the everyday activities of your life. The widespread use of games and gaming in our society, means that my middle school students have grown up earning points and rewards for completing everyday tasks.

## Prepare to Blast Off!

I grew up as the first console gaming systems were just hitting the retail market. I remember plugging a joystick into my grandfather's Commodore 64 computer, and I still play my original Super Nintendo gaming system. During my secondary school years, the concept of making mundane tasks into fun and engaging games was not a part of people's everyday experiences. But as far back as I can remember, I have owned at least one gaming console. Today, I own seven different devices to play games on. And today's students are even more likely to own gaming consoles earlier in their lives. In the book *Hanging Out, Messing Around, and Geeking Out: Kids Learning with New Media*, the authors state, "Gaming represents the central form of early computer experience for kids" (Ito et al., 2010). My gaming isn't confined to the computer, of course. I was raised playing all kinds of games with family and friends. I love board games like Sorry, card games like Fluxx, puzzle games like *Portal*, racing games like *Mario Kart*—really *all of the games*.

I knew I enjoyed games, and I knew my students enjoyed games. I wanted to gamify my research curriculum before I knew what that meant. What I was only vaguely aware of is the fact that "games and simulations yielded better attitudes toward learning when compared to traditional teaching methods and seem to facilitate motivation across different learner groups and learning situations" (Kapp, 2012). And I needed all good attitudes and higher motivation to buy into the content I was peddling. Research projects are a necessary component in developing critical thinking, reasoning abilities, and information literacy skills. I could sense, however, that the middle school students were not fully engaged in the process of inquiry, and many were not fully grasping the concepts I was trying to teach. I knew something had to change. Through my research and experience I knew that "not only is game play time growing among U.S. youth, but forms of game play and gaming demographics are diversifying" (Ito et al., 2010). This trend has continued so much so that some game worlds have even been developed into movies. For example, the 2016 *Angry Birds* movie and the 2014 *Lego Movie* are two recent games turned into feature-length films. Even though my love of research was not a passion I could pass on to students, my love of gaming was.