Katrin Becker   2,600 words
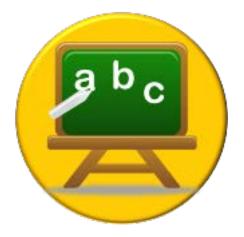Mink Hollow
RR #2, Cochrane, AB,
T4C 1A2
1.403.932.6322
Becker@minkhollow.ca

Gamification:
A Practical Guide
for the Classroom

by Katrin Becker

CHAPTER 1. **INTRODUCTION**

==

Part 1 What is Gamification?

The first part of the book explains what is meant by the term 'gamification', where it comes from, and what it is, and isn't.

==

CHAPTER 2. **PRE-GAME**

As with many other terms in the field of video game studies, there is no standard definition for 'gamification', so it is necessary to explain for each context what is meant by the term. Many confuse the notion of gamification with the use of digital games for learning (Renaud & Wagoner, 2011) and although these two terms are related, they are not the same thing. Even though some resistance remains in formal education, the use of games for learning (digital game-based learning, or DGBL) is slowly beginning to enjoy mainstream acceptance as more research supporting the viability of games as a medium for learning becomes available (Tobias & Fletcher, 2012). Gamification does not yet have the same recognition.

This chapter will offer a brief introduction to digital games, serious games, and how gamification relates to games. It will defined gamification generally, and trace a brief history (since 2008). It will then offer a brief outline of the parts of a game so we can then use those terms and concepts throughout the book.

2.1. Objectives
2.2. What is a Game?
2.3. What is Gamification?
2.4. Game Design Elements
Synopsis
- *mechanics*
- *rules*
- *reward system(s)*
- *score keeping*
2.5. Summary
2.6. References, Notes, Resources

CHAPTER 3. **THE GOOD, BAD, AND UGLY**

This chapter will show several examples of gamified spaces (foursquare, linkedin, researchgate, etc) as well as some examples of gamified educational spaces (khan academy, some MOOCs, etc). We will look at what's good and not so good about the sites in order to get a sense for ways that gamification can be used.

3.1. Objectives
3.2. Introduction
3.3. Commercial

CHAPTER 4. **GAMIFICATION IS NOT NEW**

2,600 words

Many of the techniques now being touted as gamification are not new at all. Even those aspects often criticized as being superficial have been used in various forms at various times to greater and lesser effect. Children in elementary school often get stickers for completed work; both the Boy Scouts and the Girl Guides (as well as a great many other organizations) use badges to symbolize various achievements, and of course, medals and badges have been a longstanding tradition in militaries throughout the world. The notion of leaderboards is also not unique to videogames, or games of any sort for that matter, as they can be found in many businesses as ways to highlight sales records for example, and in schools to commemorate a myriad of achievements academic and otherwise. If we consider the concept of levels in games, then certainly the grades (K-12) and years (freshman, junior, senior, sophomore) of formal education are the very embodiment of 'levels'. There are known requirements for completing one level and each new level opens up new content and additional options.

This chapter will review some of what is now being called 'gamification' and provide some of the background for them. - including references to educational theory.

4.1. Objectives
4.2. Gamification is Not New
4.2.1. Gamification We Usually See
Synopsis
    PBL
    Certificates
4.2.2. What's Old?
Synopsis
    At least, not most of it.
4.3. School is Already Gamified
4.4. Summary
4.5. References, Notes, Resources

CHAPTER 5. **GAMIFICATION IS NEW**

2,600 words

In spite of the fact that so much of what we are calling gamification is not actually new, there are some aspects that are, and, especially when taken together, constitute a new paradigm of pedagogy that fits well with 21-century learning philosophy. This chapter will round out the first part of the book by describing what gamification can mean for formal education.

5.1. Objectives
5.2. A New Paradigm of Pedagogy
5.3. Flexible Path
Synopsis
> *VS Fixed, where everyone is in lock-step*

5.4. Achievement Driven
Synopsis
> *VS activity / competency / acheivement*
>
> *focussed on what they can DO*

5.5. Cumulative Grading
Synopsis
> *VS Reductive*
>
> *Welcome to class. You all have 0.*

5.6. Personalized
Synopsis
> *VS instructor-driven*
> *VS learner-driven*

5.7. Summary
5.8. References, Notes, Resources

===

Part 2 - How To's

The second part of the book provides practical explanations, tools, and techniques that educators can use to gamify anything from single lessons to entire programs.

===

CHAPTER 6. **GAMIFYING YOUR CLASSROOM**

2,600 words

This chapter provides an overview of how to gamify classrooms in the general sense. The usual cases where practical gamification can be incorporated into the classroom are described, and common game mechanics are outlined along with how these can be incorporated into a classroom setting. It provides an overview of the gamification process, which will be covered in greater detail in the following chapters.

6.1. Objectives

Synopsis

Introduce the various ways in which gamification could be incorporated in to new and existing courses.
Lay the groundwork for the incorporation of gamification.
Provide a checklist of elements that fall under the gamification umbrella.
Highlight and explain some of the key principles in the successful gamification of instruction.

6.2. Introduction

6.3. Getting Organized

Synopsis

need to look at both instructional design and game design so we can develop a design model that combines the best of both

6.3.1. Game Design

Synopsis

lots of book on game design; few give the kinds of models we see in instructional design
look at a typical game design document
see what parts will be useful for our purposes

6.3.2. Instructional Design

Synopsis

look at instructional design models
examine Morrison Ross & Kemp in detail
build a gamified design model from that
* - this will end up looking like the remaining chapters of this section of the book*

6.3.3. A Gamified Course Document

Synopsis

build a design document similar to a game design document, but for a gamified course

6.3.4. Renovations

Synopsis

what are our options if we are renovating a course

6.3.5. New Course

Synopsis

what changes if the course is new

6.4. Elements

Synopsis

introduce the notion of game mechanics
talk about how this applies to a gamified course

6.5. Making it Work

Synopsis

pulling it all together

Labels can be powerful.
Make sure meanings are CLEAR

Tasks: Quests, Boss Battles
Groups: Guilds / Solo
Roles: Game Master; Player; NPC
Grades: XP; Achievements; Levels
Focus on objective.
Unlockable Content / Quests
Earned Rewards
Avatars

6.6. Summary
6.7. References, Notes, Resources

CHAPTER 7. **LEARNING PATH**

2,600 words

The rapid advance of technological developments has prompted frequent calls for changes to how we teach. It's been said that today's 'digital natives' learn differently, that they are far more comfortable using technology than the rest of us. However, it is important to distinguish between proficiency of use, and understanding. There is in fact growing evidence that while today's learners may be quick to turn to their phones and the Internet, they do not necessarily know how to learn with these devices. Simply knowing how to read and write does not mean one will automatically be able to learn from books. The role of the teacher is not yet obsolete, but, what is clear is that classrooms need to change. One aspect of 21st century learning that has become prominent is the notion of personalization in learning, but even then the role of the teacher is not obsolete, instead the emphasis has shifted from being 'the sage on the stage' to 'the guide on the side' (King, 1993).

Gamification offers a framework in which learning can be personalized, while maintaining a connection with formal learning objectives. One of the ways this happens is by mapping out a learning path as a network rather than the more traditional linear syllabus. In any given course or unit, there are often some parts that are independent of other parts, while others depend heavily on the understanding of certain concepts or processes.

This chapter will look at how one might map out a topic or even an entire course in such a way as to maximize the potential for learner personalization.

7.1. Objectives
7.2. 21st Century School Paradigm
7.3. Organizing the Learning Path
7.4. Summary

7.5. References, Notes, Resources

CHAPTER 8. **MISE-EN-SCÈNE**

2,600 words

This chapter talks about the *Mise-en-scène* (setting the scene), in other words, some of the aspects of gamification that are often seen as superficial, but when done right can add a sense of community to a course that can be quite useful. This includes elements such as the use of avatars, the game vocabulary, and to some extent, the use of badges. It discusses some of the pros and cons of these elements in order to provide readers with enough information so they can choose for themselves whether, and how they may want to employ these strategies. For those that decide to use them, it will provide guidance for ways to use them in the classroom.

8.1. Objectives
8.2. Vocabulary
8.2.1. Avatars
8.3. Narrative
8.4. Summary
8.5. References, Notes, Resources

CHAPTER 9. **REWARD STRUCTURES**

2,600 words

It is still the case that regardless of the assessments used within a course, ultimately, instructors must still map their own assessments onto an institutionally recognized and sometimes mandated final grade. Normally this final grade will be one of: a letter grade, a grade point average, or a percent. This chapter will examine approaches to scoring in a gamified course that can still be easily mapped onto institutionally accepted grades, while at the same time providing a great deal of flexibility.

One of the important ways that gamified courses differ from 'non-gamified' courses is in how marks are earned. Some of this difference is largely perceptual, but this can still have an important effect. Often students think of themselves as having 'A's in the course when it begins, and that they lose marks throughout the term as a result of mistakes or omissions. Each assignment is thought of separately as something to be passed (or failed) rather than one component that builds towards a larger whole. One of the fundamental perceptual shifts facilitated by using a gamified approach to scoring is that students start the class with 0 points and everything they do is additive. Whereas earning less than an 'A' is seen as a form of failure to some, earning less than the maximum possible points on a single quest can be seen as simply taking a smaller step towards the overall goal than one might have liked. When there are sufficient quests to choose from, no-one is required to complete them all, and some may complete fewer tasks for the same number of points. Either way, both strategies (fewer quests with higher scores or more quests with lower scores) can result in exemplary completion of the course.

CHAPTER 10. **QUESTS**

2,600 words

Gamification provides an innovative approach to how learning tasks are organized and assigned. The assignments that students do in order to earn marks in many courses are often characteristic for each discipline, and it is easy for instructors to settle in to a rut where even though the details of assignments may change from year to year, the format of the assignments does not.

This chapter will look at how we can view learning tasks through a gamified lens by turning assignments into quests. It will consider the kinds of quests that have become identifiable genres in games such as *World of Warcraft* and translate those into quests that fit almost any subject. For example, a "Discovery Quest" is one that requires the player to find a specified person, place, or thing. It could be transformed into a learning task by making it a request to find out more information on a topic or concept and to prepare something that can be shared with the class. In addition, quests can be further classified by their relative values, with those tasks that would normally be labeled as major assignments being transformed into 'epic quests' and 'achievement quests'. Quizzes become 'tests of lore', and, not to be forgotten, exams become 'battles', with the final exam, of course, being the 'boss battle'.

The chapter concludes with strategies for keeping track of quests that are in keeping with the gamified approach - the quest log.

10.1. Objectives
10.2. Introduction
10.3. Quest Classification

10.4. Quest Types
Synopsis
Chart
10.4.1. Learning Task Types
Synopsis
Worksheets
Dialogs, comnpositions, translations, interpretations
Quizzes
Observations
Experiments
Essays
10.5. Creating Quests
10.6. The Quest Log
10.7. Summary
10.8. References, Notes, Resources

CHAPTER 11. **SCALE**

2,600 words

Some aspects of gamification, such as how points are earned or the terminology used can be applied at either the micro- or macro- level of instruction. In other words, these techniques can be used on single lessons, small to large units, and even entire courses or programs.

This chapter looks at how to gamify existing courses, in part or in their entirety, as well as how things change when one has the opportunity to design a gamified course from scratch.
11.1. Objectives
11.2. Small Scale
Synopsis
Choose a subset
organize by questions to ask

11.3. Medium Scale
Synopsis
Choose a component of one course.
organize by questions to ask

11.4. Large Scale
Synopsis
A Whole Course
organize by questions to ask

11.5. Starting from Scratch
Synopsis
  Designing a gamified course from the ground up.

11.6. Summary
11.7. References, Notes, Resources

CHAPTER 12. **AVAILABLE TOOLS**

This chapter provides an overview of some of the tools available currently to support gamification and places where one can publish or mount gamified courses.

Many of the existing tools require cloud-based hosting of courses, and many schools prefer to protect access to their student information by keeping their courses and records close at hand, so this chapter will also explain how teachers can create their own tracking systems using simple tools like spreadsheets, or even paper records.

12.1. Objectives
12.2. Cloud-Based Applications
12.3. Self-Hosted
12.4. DIY
12.5. Summary
12.6. References, Notes, Resources
==

Part 3 - End Game

The last section of the book includes the concluding chapter, as well as an extensive glossary of terms used in the book, and templates for many of the techniques described in preceding chapters, such as lesson plans, game assessments, player stat sheets, and quest logs.

==

12.1. Abstract
12.2. Objectives
12.3. Section
12.3.1. Sub-Section
12.4. Summary
12.5. References, Notes, Resources

CHAPTER 13. **END GAME**

The final chapter is where I will review what's been said, and what we now know as well as what we still need to discover.

14. Endnotes
15. Glossary
16. Assets to Share
Synopsis
   Most will be on the Web