Punch Pal
A Gamified Approach to Timekeeping

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Kronos' Creative Brief:
Using Gamification to Change Employee Behavior

Challenge:
- Develop and explore use cases for gamifying common workforce management challenges.

- Enable employees to shift their patterns and work habits to be more inline with the corporate goals of a company.

Area of Exploration: Productive engagement through points, achievements, and levels.

Considerations & Constraints: Opt-out policy; Privacy; Rewards vs. compensation; Transparency and measurement

Problem

Despite advances in timekeeping technology, employees fail to clock in and out properly, resulting in costly manual effort to correct mistakes.

Vision

Our solution, Punch Pal, utilizes gamification methods to motivate employees to clock in and clock out on time, every time. By gamifying the employee timekeeping system, employees will be engaged in the development of successful timekeeping behaviors. This will allow retail enterprises to further reduce time and money spent on managing exceptions, enabling employers to redirect attention and effort to other areas of the business.

Constraints

- System must apply rules based on compliance and policy
- Clocking in/out must be quick and easy
- Prevent the "buddy punch"
- Device should display other work related information

Our Persona

Taylor Gray

"I would like to be recognized for my hard work and dedication"

Detail Oreinted | Disciplined

Affable | Technologically Savy
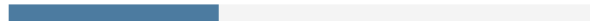
Age: 22
Work: Retail Associate
Family: Single
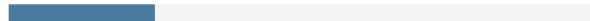Location: Nashua, NH

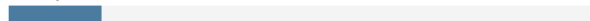### Personality

Interpersonal

Organized

Compliant

Adaptable
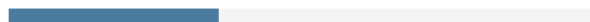
Motivations

Compensation

Achievement Recognition

Relationships

Growth

Bio

Taylor is moderately tech savvy, as a typical millennial usually is, and takes advantage of the tools that are available on devices to keep a busy lifestyle organized and on the right track. Taylor is spread pretty thin, having to devote attention and time to many different things. By day, Taylor is a full-time college student, sometimes working at the school as part of the work-study program. On nights and weekends, Taylor works part-time at a local retail store as a sales associate, earning extra money to cover expenses through college. Taylor utilizes reminder and notes apps frequently, if sticky notes aren't handy, and is a user of exercise technology (e.g., fitbit) to help maintain a healthy lifestyle. However, Taylor sometimes forgets to effectively utilize such tools, and despite Taylor's tech savviness, gets frustrated and impatient when interacting with applications that require too many steps or have restrictive workflows.

Goals

- Succeed in my ambitions to obtain my career of choice
- Receive recognition for my achievements
- Be known as a reliable coworker
- Be efficient in daily responsibilities

Frustrations

- Slow, non-intuitive technology
- Difficult to achieve entry level job in desired career field
- Little time to balance work, school, relationships, and family matters
- Feeling uncertain about performance in work and in life
- Rigid structure and rules

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User Requirements

1. The user shall be able to login easily, without having to remember login credentials or having to bring a physical badge or card
2. The user shall be able to punch in or out after after login
3. The user shall be able to see confirmation of their punch action after punching in or out
4. The user shall be able to log out easily and quickly
5. The user shall be able to view their store's daily performance
6. The user shall be able to view their personal performance

Punch Pal
Time Clock 3D Prototype

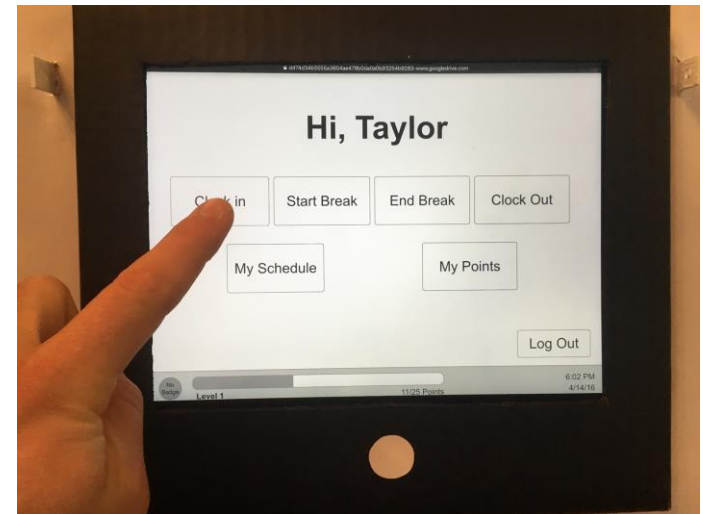# Punch Pal Time Clock (Prototype)

Form Factor:

- Tablet Casing (8" diagonal)

- Touchscreen Interface (7" diagonal)

- Wall Mount

- Speaker

- Fingerprint Scanner

Punch Pal Time Clock (Prototype)

Input Methods:

- Touchscreen

- Fingerprint authentication
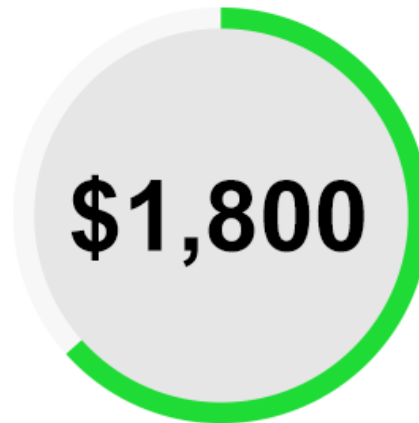
Timekeeping Tasks

Primary actions or punch actions:

- Clock In action to start a shift
- Clock Out action to end a shift
- Start Break action to record the start time of a break
- End break action to record the end time of a break

Secondary actions:

- View logged in user's schedule
- View logged in user's points details
- Log out of dashboard
- Stay logged in to dashboard

Hi, Taylor

| Clock in | Start Break | End Break | Clock Out |

| My Schedule | My Points |

Log Out

No Badge

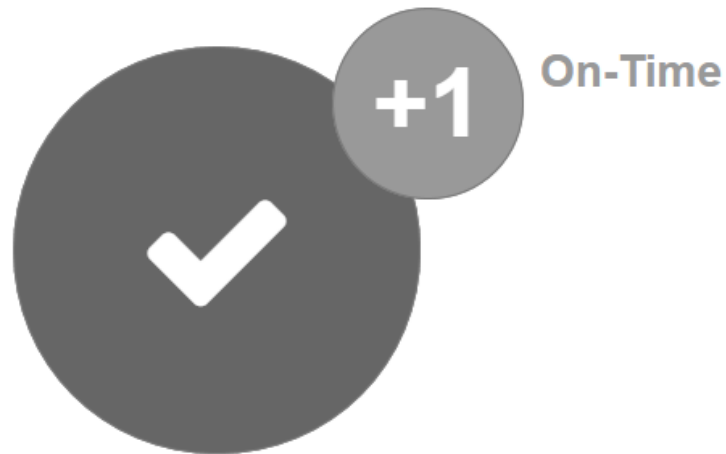Level 1   11/25 Points

6:02 PM
4/14/16

Clock-in Success

13 Points to Next Badge

Logging out in 2 seconds

Cancel Log-out

No Badge

Level 1   12/25 Points

6:02 PM
4/14/16

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Punch Pal Game

Punch Pal Game

Players

Retail employees (i.e., sales associates) and other users of the time clock system

User Behaviors & Task Completion

Encourage behaviors that enable retail employees to successfully complete timekeeping tasks, such as:
- Clocking in on time to start a shift
- Clocking out on time to end a shift
- Accurately recording the length of breaks

Discourage behaviors that may result in *missed punches*, or failing to complete timekeeping tasks.
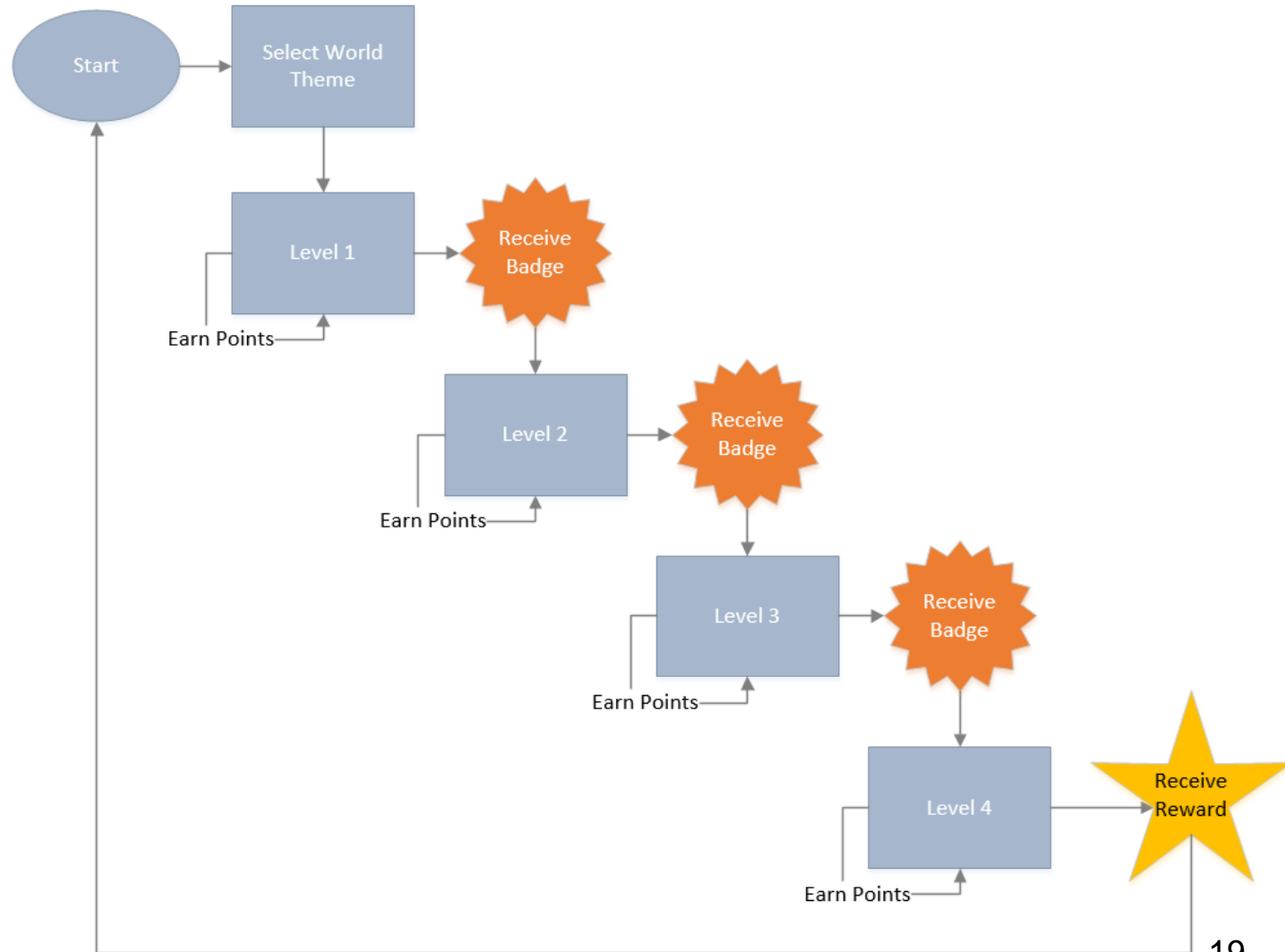
Game Motivators

Compete	Collaborate	Explore	Express

Self-Competition
  ○ Punch Streak
  ○ Best Punch Streak
	● Store Goals & Performance	● Badges have accompanying "Did you know…?" fact(s).	● Facts and images related to the World themed badges can be shared on social media
			● Selecting a Badge as "Personal Flair"

INTRINSIC MOTIVATORS ←　　　　　　　　　　　　　　**→ EXTRINSIC MOTIVATORS**

Play & Challenges	Conflicts & Choices	Feedback Loops	Goals & Rewards
● On-Time Punch ● Accurately Record Break ● Punch Streak ● Best Punch Streak	● Selecting a Badge as "Personal Flair" ● Selecting a theme for the Next World	● Punch confirmation ● Performance metrics on device ● Schedule & Performance Emails ● New Badge Emails ● Prize Emails	● Earn Points & Bonus Points ● Reach all four Levels of a World ● Complete Badge Set for a World ● Win Prize for completing the game

See Appendix for research details.

Punch Pal
Game Flow

Game Mechanics
Approximate Completion: 3 Months

Level	User Points
1	0-25
2	26-55
3	56-90
4	90-150

Start → Select World Theme → Level 1 → Receive Badge

Earn Points

Level 2 → Receive Badge

Earn Points

Level 3 → Receive Badge

Earn Points

Level 4 → Receive Reward

Earn Points

Punch Pal Game Point System

User earns points by completing timekeeping tasks according to established rules

Task	Rule	System Definition	Points Earned
Clock in to start shift (1 punch)	Punch must be *on time*	Punch is *on time* when a Clock In punch-action is registered exactly at the user's scheduled shift start time, or within a 6-minute punch window prior to the scheduled start time	1
Clock out to end shift (1 punch)	Punch must be *on time*	Punch is *on time* when a Clock Out punch-action is registered exactly at the user's scheduled shift end time, or within a 6-minute punch window after the scheduled end time	1
Record start and end of a break (2 punches)	Breaks must be *accurately recorded.* Break punches must accurately reflect: - Break was taken within scheduled shift - Length and/or number of breaks recorded match scheduled breaks	A break is *accurately recorded* when a Start Break punch-action is registered and an End Break punch-action is the next registered punch. The entire break registered as taken within the scheduled shift The End Break punch-action must be registered before or exactly at the date & time calculated by the formula *User's Break Start Time + Length of Initiated Break*	1 per break

Punch Pal Game Point System
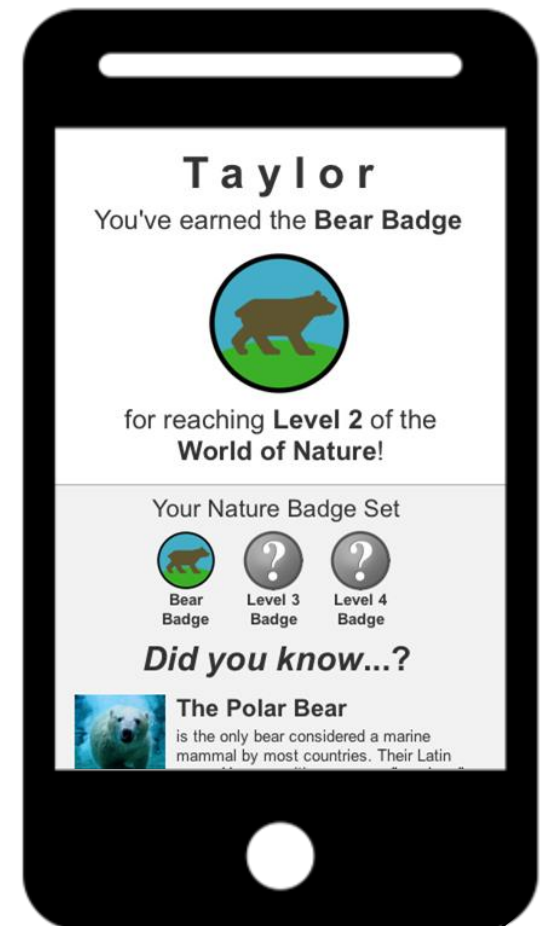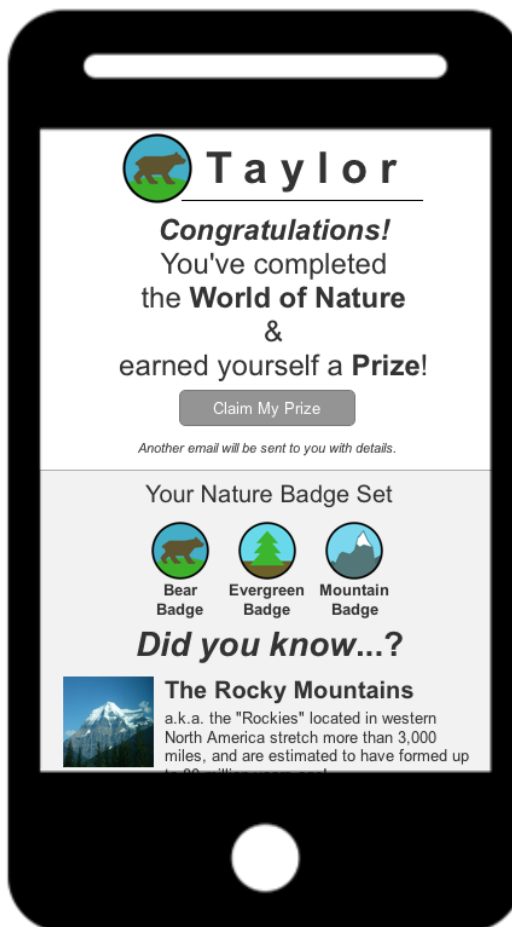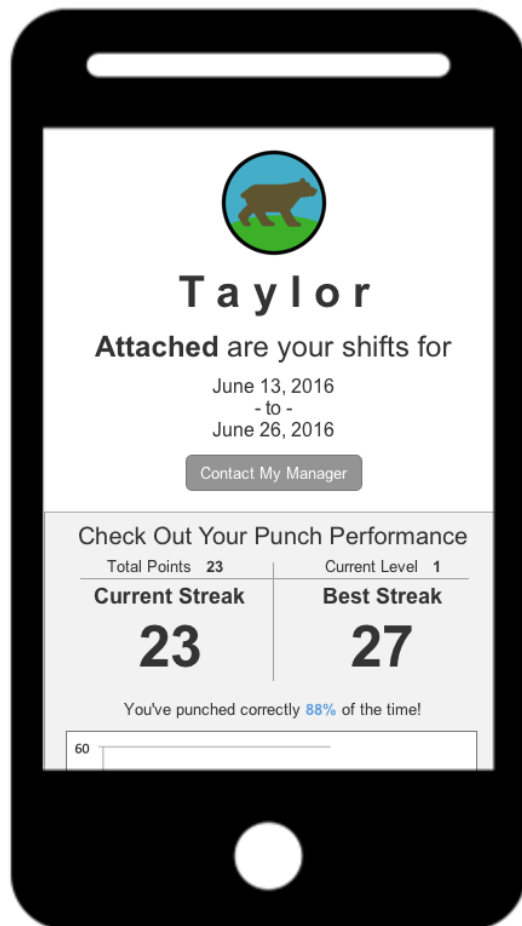
User can earn bonus points by:

- Working during a day in which the daily store goal is met (+5 Points)
- Maintaining a Punch Streak or beating a Best Punch Streak

Challenge	Rule	System Definition	Bonus Points Earned	Total Points Earned
Maintaining a Punch Streak	User completes 10 or more consecutive on-time punches and accurately recorded breaks	System registers 10 or more consecutive on-time punches and accurately recorded breaks that align with schedule	1	2
Beating a Best Punch Streak	User maintains a Punch Streak that exceeds a previously set, highest number of consecutive on-time punches and accurately recorded breaks by 1	System stores Best Punch Streak for future reference once set. System registers a number of consecutive on-time punches and accurately recorded breaks that align with schedule and exceed stored Best Punch Streak by 1	1	3

Missed Punches reset a user's pursuit for a streak or current streak.

Punch Pal Game Elements & Performance

- Presented on the time clock device and sent to the user via email.
- To keep employee timekeeping as quick and efficient as possible, the majority of interactive game elements are presented to the user via email instead of on the device.

T a y l o r

Attached are your shifts for

June 13, 2016
- to -
June 26, 2016

Contact My Manager

Check Out Your Punch Performance

Total Points 23	Current Level 1
Current Streak	**Best Streak**
23	**27**

You've punched correctly **88%** of the time!

60

T a y l o r

Congratulations!
You've completed
the **World of Nature**
&
earned yourself a **Prize!**

Claim My Prize

Another email will be sent to you with details.

Your Nature Badge Set

Bear Badge   Evergreen Badge   Mountain Badge

Did you know...?

The Rocky Mountains
a.k.a. the "Rockies" located in western North America stretch more than 3,000 miles, and are estimated to have formed up

T a y l o r
You've earned the **Bear Badge**

for reaching **Level 2** of the
World of Nature!

Your Nature Badge Set

Bear Badge   Level 3 Badge   Level 4 Badge

Did you know...?

The Polar Bear
is the only bear considered a marine mammal by most countries. Their Latin

New Badge

Prize

🐻 **Taylor**

Congratulations!
You've completed
the **World of Nature**
&
earned yourself a **Prize**!

Claim My Prize

Another email will be sent to you with details.

Your Nature Badge Set

Bear Badge   **Evergreen Badge**   **Mountain Badge**

Did you know...?

The Rocky Mountains

a.k.a. the "Rockies" located in western North America stretch more than 3,000 miles, and are estimated to have formed up to 80 million years ago!

Share

Claim My Prize

I don't want to receive these emails anymore

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Schedule & Performance Update

Key Takeaways

Key Takeaways

- Gamification can be a great asset to solve the problem of innaccurate timekeeping, but any solution has to be sure not to disrupt the efficient completion of clocking in/out and recording breaks.

- Using gamification is a large undertaking that may require professionals in that industry to contribute to the task. Consider involving an expert familiar with game mechanics, behavioral psychology, and motivation.

- Don't use cash or gift cards to the store as rewards. Rewards and prizes need to be at least one "step" away from the business itself.

- This model of gamification is flexible and may be used across several industries. It is expected that employers modify game elements such as points, levels, and prizes.

- The tasks that contribute to gamification are not limited to only the tasks we have in our designs. Game elements and rules can be expanded to apply elsewhere in workforce management.

Thank You

Protocast Link

https://vimeo.com/164313514

Appendix

Research: Motivational Behavior

According to Dale (2014)[1], gamification design should consider that as individuals we all are not motivated in the same way -- what may motivate one user may have a different affect on another user. Citing the work of Dr. Amy Jo Kim[2], four types of motivational behavior are identified.

[1] Dale, S. (2014). Gamification: Making work fun, or making fun of work?. *Business Information Review, 31*, 82-90.
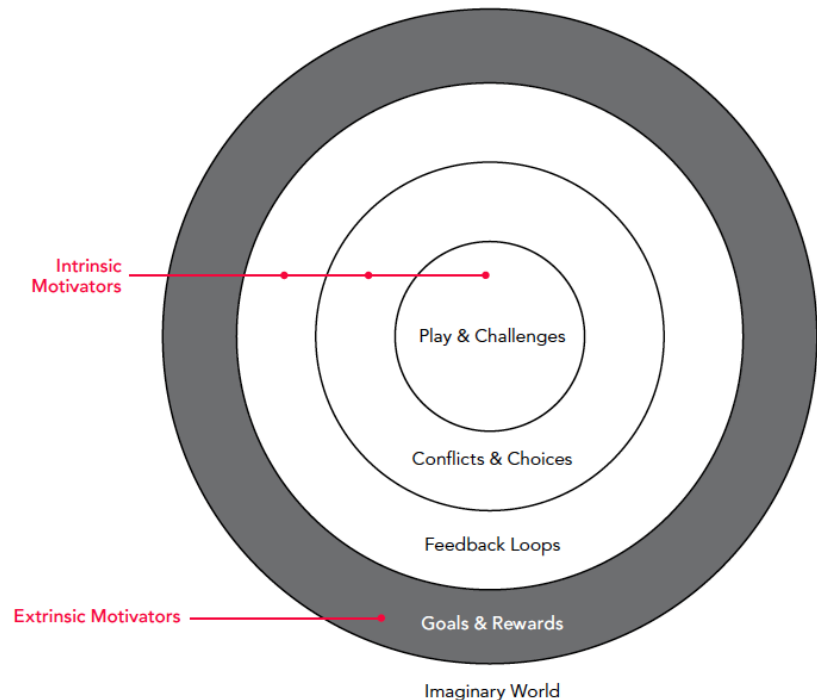[2] Kim, A.J. (2012). Social engagement: Who's playing? How do they like to engage?   http://amyjokim.com/blog/2012/09/19/social-engagement-whos-playing-how-do-they-like-to-engage/

Research: Game Elements as Motivators

Anderson (2011)[3] outlines four key elements of game design and where they fit on the spectrum of intrinsic vs. extrinsic motivators.

Intrinsic motivators help one fulfill an inherent desire for personal growth by achieving some sort of competence.

Extrinsic motivators are the enticements and punishments used to make subjects do what they are supposed to do.[4]

Intrinsic Motivators

Play & Challenges

Conflicts & Choices

Feedback Loops

Extrinsic Motivators

Goals & Rewards

Imaginary World

This Elements of Game Design model provides the conceptual basis for much of our discussion in this section.

[3] Anderson. S.P. (2011). ***Seductive interaction design***. Berkley, CA: New Riders.
[4] Dale (2014)