

Answer these 10 Questions and...



You Too Can Gamify!

New Designs for Learning: Games and Gamification University System of Maryland September 29, 2016

Leshell Hatley, Ph.D.

Assistant Professor Lab for Artificial Intelligence and its Applications (LAIA) Math and Computer Science Coppin State University Baltimore, MD

Please Cite:



A Few Facts about Mario...

- His original name was *Jumpman* in 1981 Donkey Kong.
- Nintendo trademarked "Its on like Donkey Kong."
- Mario was originally supposed to be a carpenter.
- Mario was named after Nintendo office landlord.
- A survey conducted in the early 1990s revealed that American children recognized Mario more than they did Mickey Mouse.
- A world in Super Mario Bros 3 is shaped like Japan.

Please Cite:





Today's Agenda

- Introductions 10 min?
- Gamification Overview 20 min
- "Let's Gamify" (Gamification Activity) 1 hour
- Share (optional for each participant) 10-20 min
- Evaluation? 10 min
- Q&A 10 min

Please Cite:





Introductions

- Coppin State University Students
 Progress, CS Major
 Kawe, CS Major
 Anil, CS Major
- Participants

Please Cite:





Gamification: What is it?

- What is gamification? It's basically the use of game design elements in non-game contexts. [1,2]
- What are game elements?
 - Theme/story
 - Conflict/Challenge
 - Strategy and Chance
 - Rewards
 - Aesthetics

Please Cite:





Gamification: What is it?

• 3 Main Parts: [3,4]

1. Implemented Motivational Affordances Begets...

- 1. Resulting Psychological Outcomes
 - a) Motivation
 - b) Attitude Adjustment
 - c) Enjoyment

2. Behavior Change

Please Cite:





Gamification: What is it?

- What are Motivational Affordances? [4]
 - Autonomy of Self
 - Achievement & Competence
 - Leading + Following
 - Emotion & Narrative
 - Relatedness

Please Cite:





Gamification: Benefits

- Gamification is typically used for: [2,4]
 - User (student) Engagement
 - Intrinsic Motivation
 - Psychological Outcomes
 - Behavioral Change

Please Cite:



Gamification: Does it work?

- Relatively new as a field of study...
 Gamification of <u>learning</u> is most common
- Main Question: Does it work? [4]

Please Cite:





- It does work, but it depends on context and users. [1,2,3,4]
 - Typically causes increased motivation, engagement, enjoyment.
 - Impact may vary because people engage with games differently

(e.g. leaderboard vs leaderboard placement)

Please Cite:





Gamification: Challenges

- May not be long-term
- Impactful due to novelty
- Increased Competition
- Difficult Design Features

Please Cite:

Hatley, L. (2016). Answer These 10 Questions and You Too Can Gamify. Presentation, New Designs for Learning: Games and Gamification. University System of Maryland. College Park Marriott Hotel & Conference Center.

fppt.com





Gamification: Challenges

• Outside pressures

(e.g. extrinsic rewards undermine intrinsic motivation)

- Removing it can be detrimental (e.g. loss of earned badges or points)
- Evaluation is difficult

Please Cite:





Gamification: Examples

- www.KhanAcademy.org/badges (CS Edu)
- www.CodeAcademy.com (CS Edu)
- www.Badgeville.com (Business Gamification)
- www.FreeRice.com (Rice donation)
- www.Fold.it (Aids Research)

Please Cite:





Activity:

- I will ask a question.
- You will draw, write, describe your answer.
- We move to the next question.
 - 10 questions + final notes
- Coppin students are here to help you!

Share (optional)





Rules:

- You can work individually or with a team
- Remain creative and open
- Break when you need t
- "Don't wig out!" ③
- Ask questions!
- Do your best!

Please Cite:





1. What is the game's objective?

What is the point of your game?

What will players accomplish by playing?

- Understand concepts
- Generate ideas
- Move around
- Work collaboratively
- Other

Please Cite:





2. What is your platform preference?

Where/how will students play your game?

- Board game
- Mobile app
- Web
- Virtual Reality
- Classroom
- Other

Please Cite:





3. What is the game's setting?

- This refers to theme, where the game takes place, what's the story...
 - Medieval times
 - Urban area
 - Futuristic Galaxy
 - Other

Please Cite:





4. How many players play at any one time?

Do players take turns?

- One player
- Two or more players
- Teams
- Unlimited
- Other

Please Cite:





- 5. What is/are the risk(s)? Conflict(s)? Challenge(s)?
 - What will make your game worth playing?
 - Loss of 'life'
 - Beat the clock (Get to the end cop)
 - Defy enemies
 - Balance, Collection
 - Beat Opponent(s)

Please Cite:





6. How will player(s) score, if at all?

- How will player know they are successfully advancing?
 - More 'life'
 - Typical count by some iteration
 - Collection of objects (fruit)
 - Rewards
 - Other

Please Cite:





- 7. Are there game levels? If so, how does a player advance?
 - Does the game get more challenging?
 - Different scenes
 - More complex enemies
 - Difficult questions
 - Different rules
 - Other

Please Cite:





8. How will player(s) know they won?

How will player know they the game ends?

- Prize
- Sound
- Credit
- Time

 End of unit, semester, project

Please Cite:





9. What happens if/when a player loses?

How will player know they the game ends?

- Loss of all 'life'
- Loss of all points/rewards
- Loss of time
- Lowest points
- Disqualified
- Incorrect responses

Please Cite:





10.Will there be a leaderboard?

- How will it be displayed?
 - Top 3, Top 10, etc.
 - Player/Team names only
 - Names & points
 - Best Players
 - Other

Please Cite:





Final notes:

- Provide help/instructions
- Provide continuous feedback
- Provide a way to quit (optional)
- Who/what will you need to finalize your 'game?'
 - Assets sounds, images, props
 - People
 - Skills
 - Other resources

Please Cite:





Final Questions?

Let's put the finishing touches on your games!

- What's missing?
- What else would you add?
- Questions?
- Comments?
- Suggestions?
- Concerns?
- Other?

Please Cite:





fppt.com



Anyone willing to share his/her game? No more than 2-3 min each Save question for the end Feel free to offer suggestions Be open to suggestions

Please Cite:







Text photos and descriptions to: 202.713.5027

Please Cite:

Hatley, L. (2016). *Answer These 10 Questions and You Too Can Gamify*. Presentation, New Designs for Learning: Games and Gamification. University System of Maryland. College Park Marriott Hotel & Conference Center.

fppt.com



Suggestions for Evaluation?

How can we evaluate today's games?

- Is evaluation feasible?
- Multipart evaluations?
- Portfolio?
- Traditional evaluations?
 Quizzes, tests, etc.
- Other?

Please Cite:



Suggestions for Evaluation?

Text suggestions to: 202.713.5027

Please Cite:

Hatley, L. (2016). Answer These 10 Questions and You Too Can Gamify. Presentation, New Designs for Learning: Games and Gamification. University System of Maryland. College Park Marriott Hotel & Conference Center.

fppt.com



Happy Gaming! Questions?

Please Cite:





Ihatley@coppin.edu @leshell @laia_csu LeshellHatley.com laia-csu.org



- Coppin Students
- Participants
- University System of Maryland
- Organizers/Hosts/Sponsors
- AV Team

Please Cite:







- 1. Deterding, S., Dixon, D., Khaled, R., & Nacke, L. (2011, September). From game design elements to gamefulness: defining gamification. In *Proceedings of the 15th international academic MindTrek conference: Envisioning future media environments* (pp. 9-15). ACM.
- 2. Deterding, S., Sicart, M., Nacke, L., O'Hara, K., & Dixon, D. (2011, May). Gamification. using game-design elements in non-gaming contexts. In *CHI'11 Extended Abstracts on Human Factors in Computing Systems* (pp. 2425-2428). ACM.
- 3. Hamari, J., & Koivisto, J. (2013, June). Social Motivations To Use Gamification: An Empirical Study Of Gamifying Exercise. In *ECIS* (p. 105).
- Hamari, J., Koivisto, J., & Sarsa, H. (2014, January). Does gamification work? -a literature review of empirical studies on gamification. In 2014 47th Hawaii International Conference on System Sciences (pp. 3025-3034). IEEE.

Please Cite: