



Level Up Your Security: The Power of Gamification

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Who am I?



- Ben Meyer-Crosby (he/they)
- 10+ year in cybersecurity
 - Cybersecurity Operations
 - Risk Management
 - Training & Awareness
 - Incident Management
- CISM
- Based in Portland, OR



Agenda

- Why are we here?
- Gamification
 - What is it? (and what it isn't)
 - What does the data show?
- What should we be thinking about?
- Q&A



Why?





Problems

- Motivation
- Performance
- Retention



Story

One afternoon, Jake, a customer service rep, received an email requesting patient records but noticed the sender's address had an extra letter in the company's domain name, a common phishing tactic. Remembering his training, Jake immediately flagged the email as suspicious and reported it to IT.



Why do we have security awareness training?

- Regulatory requirements
- We want to keep our customer's data safe
- We don't want our jobs to be harder because someone installed malware



How do we deliver training?

- In-person training
- Virtual, instructor training
- Computer-based training
- Simulated Attacks (Phishing/Smishing/Vishing/USB Drops)
- Awareness posters and videos
- Newsletters and emails
- Cybersecurity-based contests and prizes
- Chat channel
- Wiki



What it is (and what it isn't)





What people think of

- Leaderboards
- Points
- Levels
- Badges
- Challenges



Points



Badges



Competitions



Social Rewards



Milestones



Rankings



Additional things to think about

- Story
- Incentives
- Focus



Let's look at the data



Motivation



~68%

reported that, in general, the educational gamification environment used increased their perceived motivation



Motivation - Overall

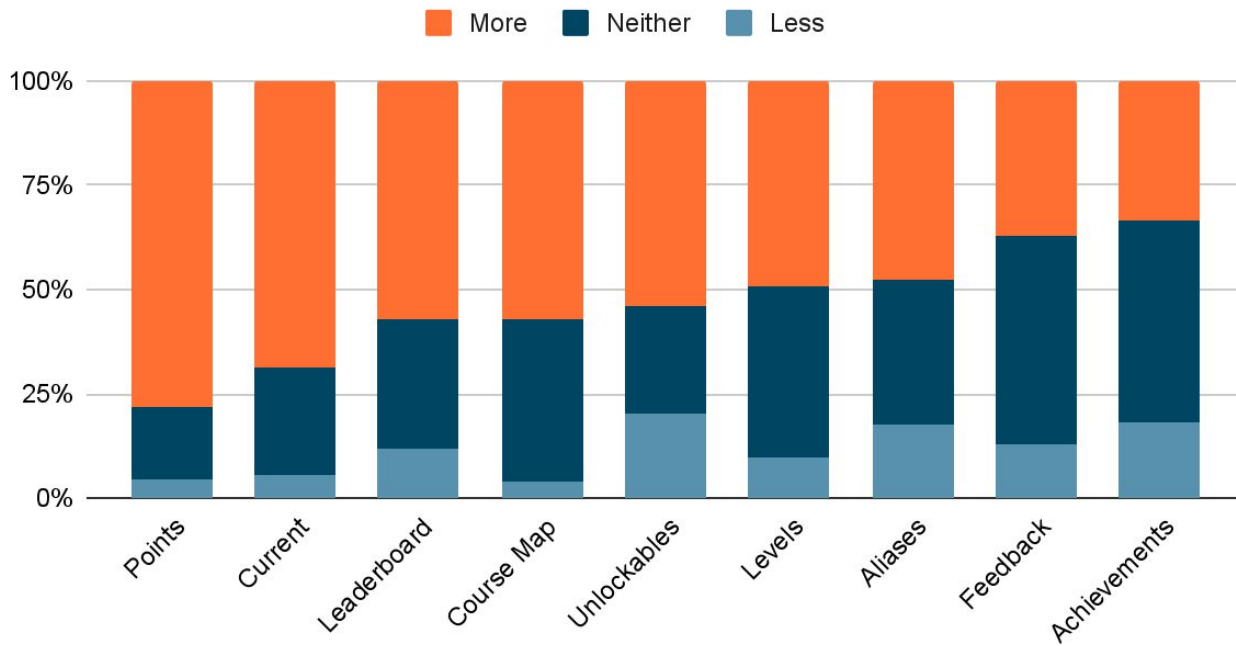
- Gamification **DOES** increase motivation
- Gamification **DOES NOT** directly increase performance
- Motivation **DOES** increase performance

Gamification -> Motivation -> Performance



Motivation - Elements

Motivation by element



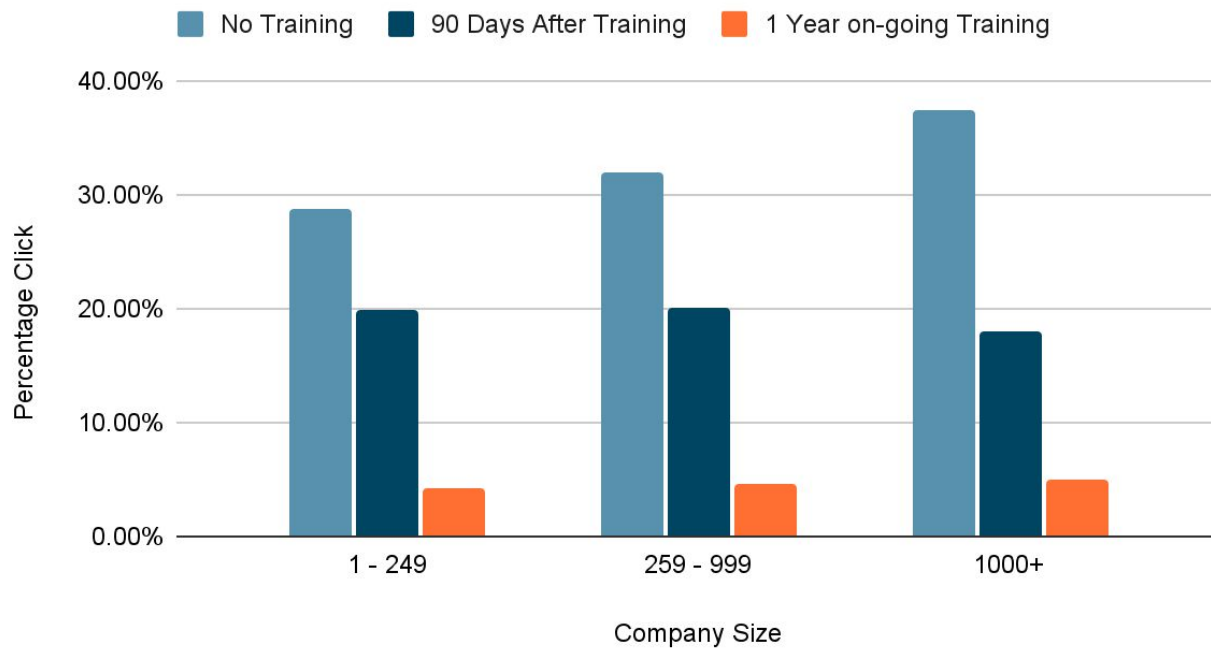
Retention





Retention

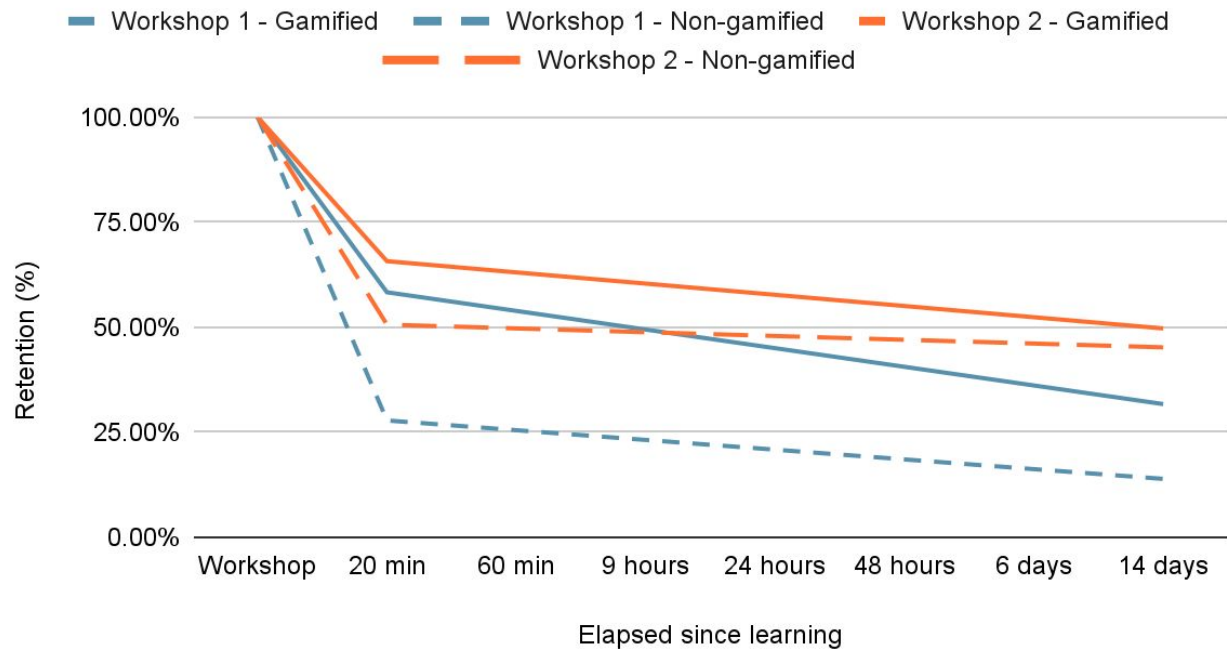
Phish Prone





Retention

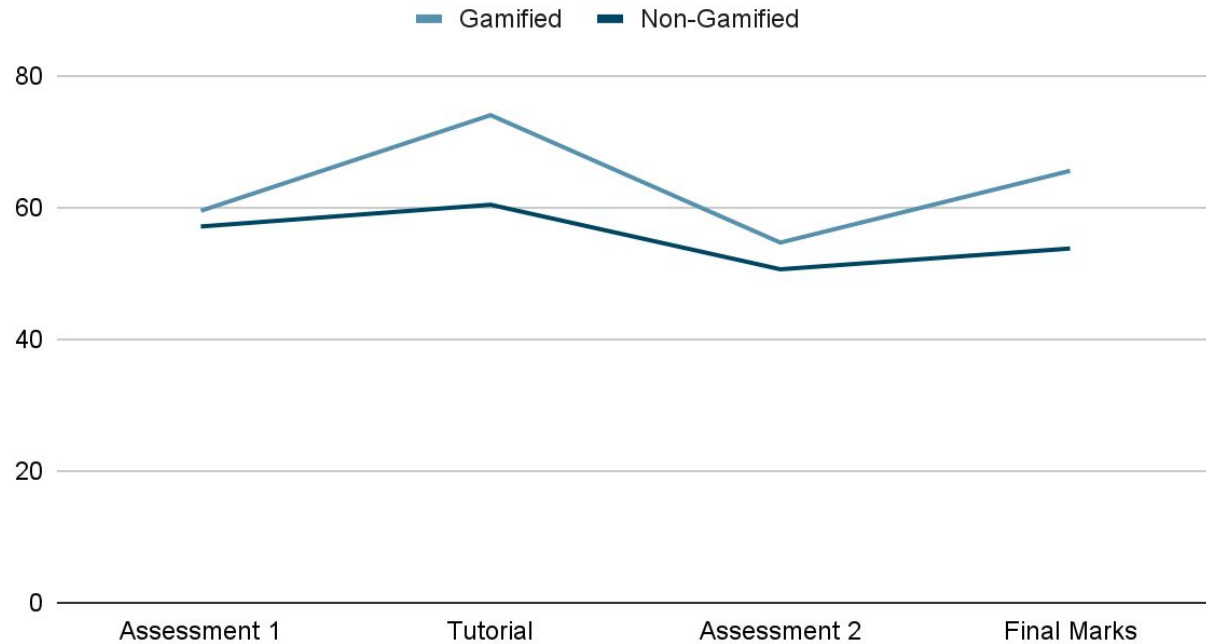
Retention





Retention

Mean averages



Performance





Performance - Story Question

What was suspicious about the phishing email in Jake's story?


- a) DKIM/SPF checks failed
- b) Misspelled company domain in email
- c) It just looked phishy
- d) Asked Jake to complete the task urgently




Performance - Regular Question

How many years have I been working in cybersecurity?

- a) 30+ years
- b) 15+ years
- c) 10+ years
- d) 8+ years



**How should we be
thinking about it?**





Platform

- 1) Plan, Plan, Plan
- 2) Build/Buy
- 3) Implement
- 4) Maintain



Where do I put it?

- **Everywhere!**
- Embed activities into their daily jobs
 - Phishing simulations
 - Properly applying data labeling
 - Submitting a PR with 0 security violations
- Hide hidden phrases on training posters
- Put clues in newsletters



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Q & A

