

Enhancing Education through Gamification





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Game Developer and Game Dev. Lecturer.
Did my M.Ed Thesis on Gamification.

Pointsification as Motivational Design

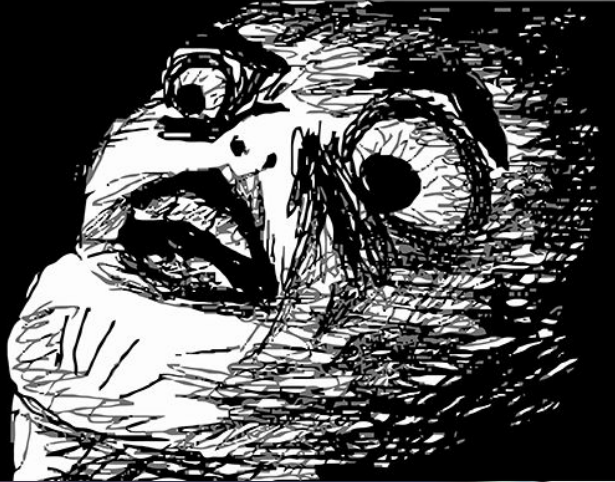


Recyclebank

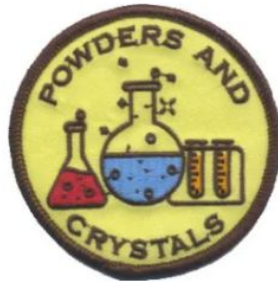
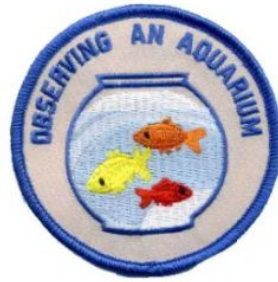




BUT I DON'T
PLAY GAMES!



Badges



Loot Boxes

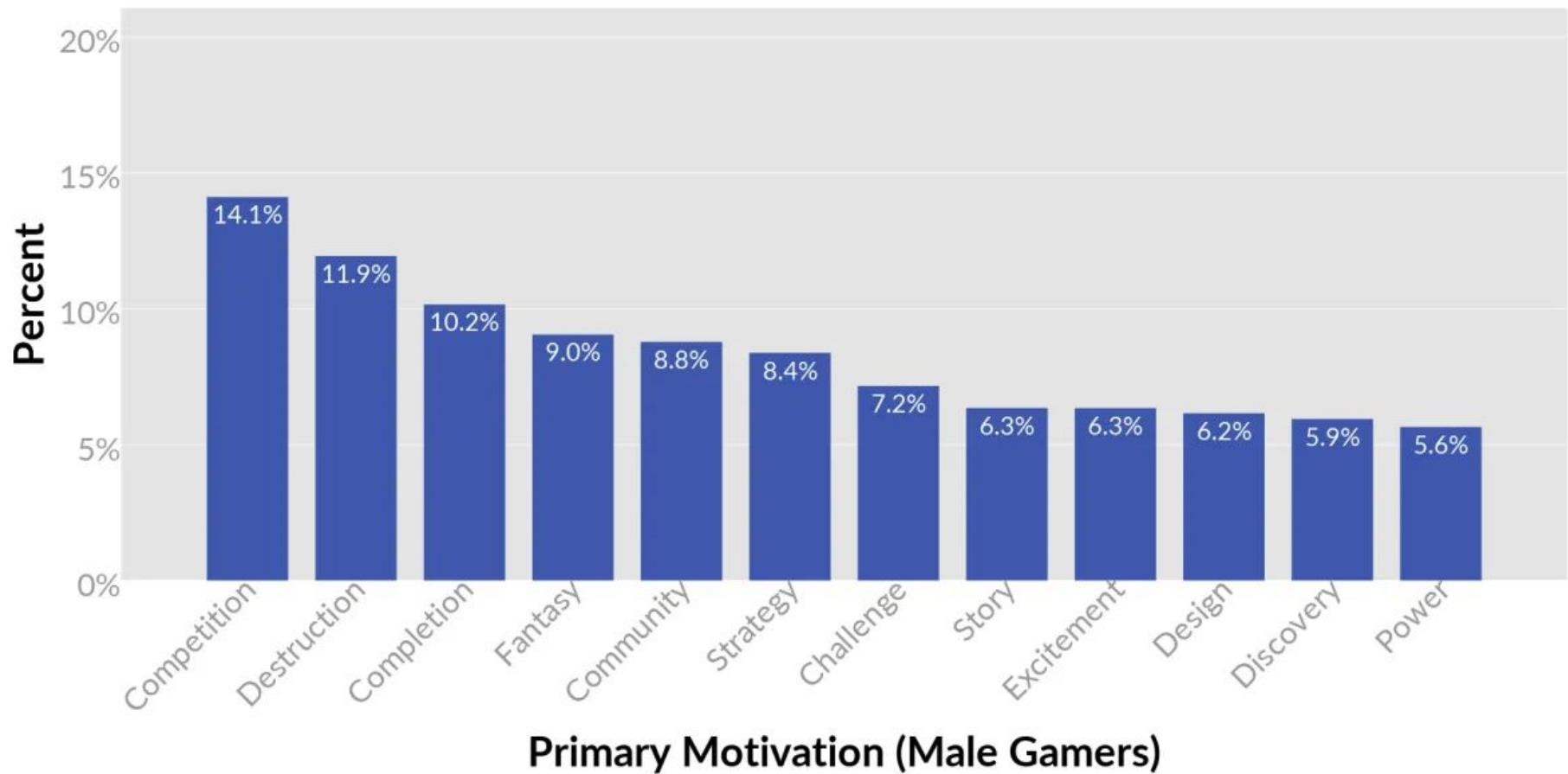


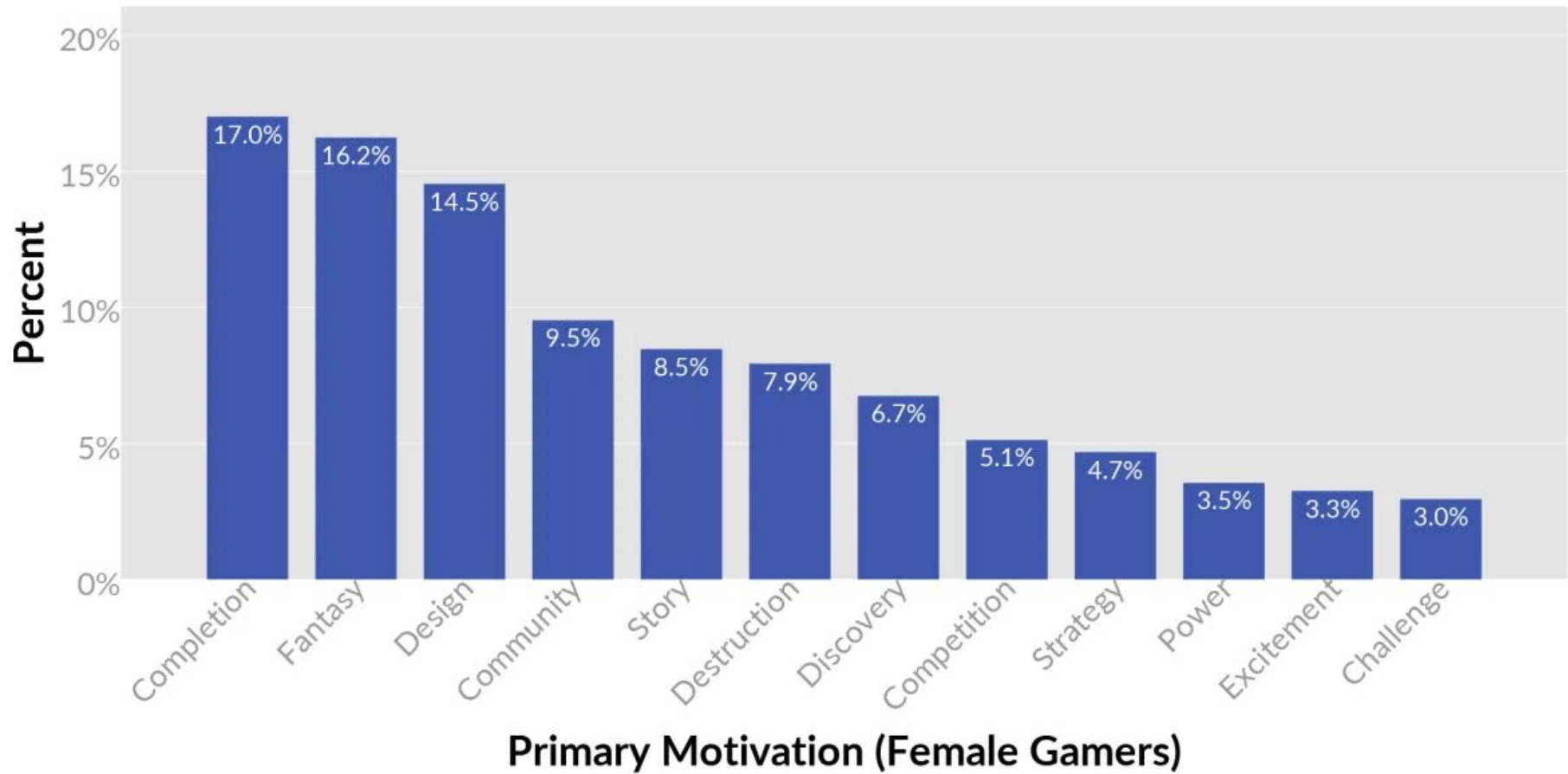
Quests

Quests



Autonomy		Relatedness		Competence		Stimulation		
Continuous game world	Freeplay	Replay	Mini-games	Clear goals	Multiple routes to success	Unlockable content	Virtual goods	Character customisation
Player housing	Player - generated content	Profile picture	Gifting or referrals	Player levels	Visual status or rank	Friend lists	Chat or messaging	Simulation aesthetics
Fantasy aesthetics	Characters / NPCs	Narrative context	Cutscenes	Teamwork	Collaborative actions	Player roles / classes	PvP Competition	Leaderboards
Virtual currency	Experience points	Score / grade	Levels	Progress bars	Play streaks	Performance graphs	Badges / Achievements	Profile page
Lives	Playing / difficulty levels	Time pressure	Quests / Optional Challenges	Score streaks	Clues	Compliments	Sound effects	Voice acting
Music / soundscape	Animated feedback	Animated characters	Avatars	Game feel	Motion controls	Randomness	Transgressive play	







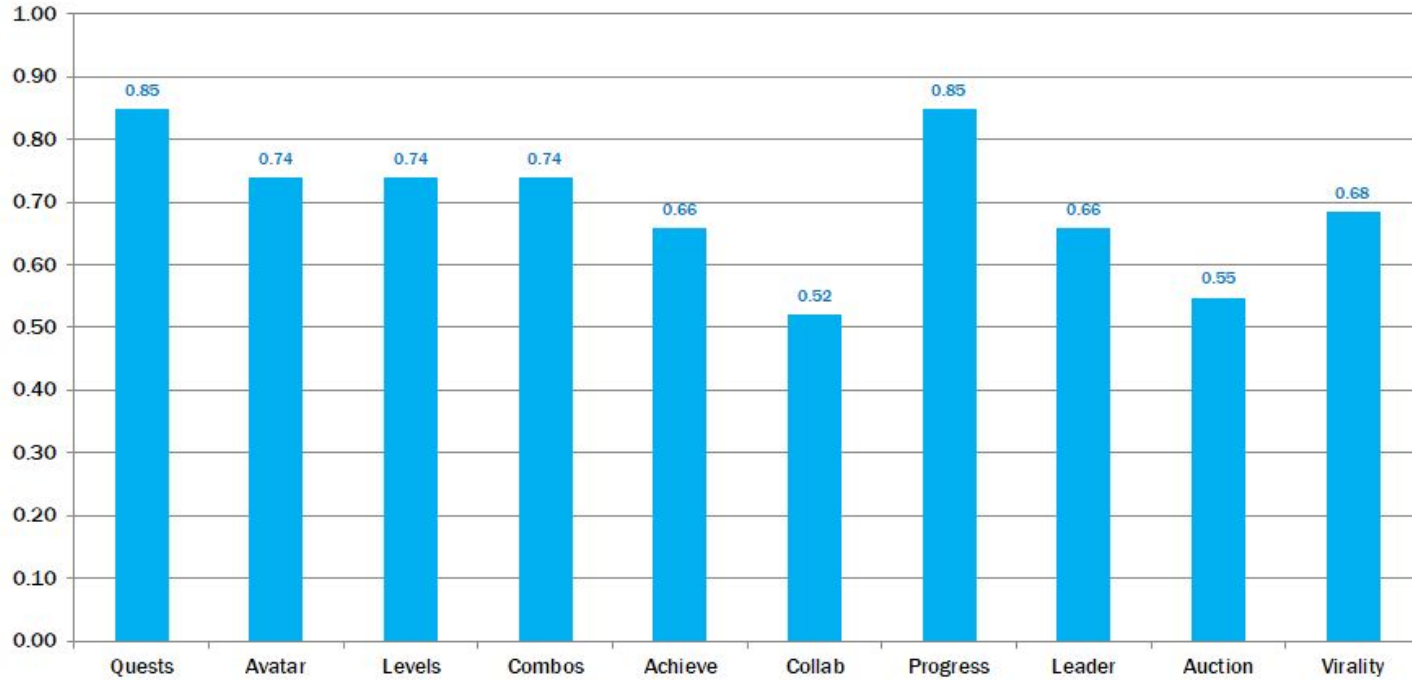
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	High Popularity Students	Low Popularity Students
Teamwork	Ok	Hate it

Sociometer Theory: Self-esteem is gauge of success in personal relationships.

Collectivistic vs Individualistic?

Overall Preference (Visibility)



High Achieving Students

Low Achieving Students

Player levels	Ok	Gradual tasks, grinding, do more, work harder
Badges / Achievements	Steep challenges, has to be difficult, otherwise no glory	Not so much

Implement both elements and keep them in balance.

Users will have perceived autonomy and intrinsic motivation.

	High Motivation Students	Low Motivation Students
Teamwork	Ok	Hate it, but will do
Unlockable Content	Ok	Hate it, but will do

Low motivation users hate to have to do anything!

Get highly motivated users to motivate them and force them to do work together.



Case Study: Practicle



Card Sharing



Harriet, Ben and Celestine shared **318 cards equally**. During a game, Ben **lost 52 cards** to Harriet and Celestine lost half of her cards to Harriet. How many **more cards** did Harriet have than Celestine in the end?

Press on the keywords to highlight them.



Add workings or use the Calculator to add them automatically.



Stop



117.4k



Calculator



Videos



Sound On

Answer:

0

cards

For multiple numbers in the answer, use commas, for example: "2, 4, 6, 8".

Submit answer

Pets + Levels

Targets: Low / Medium Achieving

Positive: Students have goals - Pets

Negative: Overworked sessions



Daily Quests

Targets: Everyone

Positive: Students spread out their practice, build habits

Negative: -

Practicle

My Daily Quests!

Today's Daily Quest: Answer 3 questions correctly
Complete today's quest to earn a 🌟 and get lots of xpl! You have 296 🌟!

Extra Mile: Go one step further to get a treasure chest!

○○○ 📦

🌟 you have earned for the last 7 days:

Date	Questions	Bonus
Wed 30 Sep	3	0
Thu 1 Oct	3	10xp
Fri 2 Oct	3	0
Sat 3 Oct	3	10xp
Sun 4 Oct	3	50xp
Mon 5 Oct	3	1
Tue 6 Oct	3	0

How much bonus exp will I get? ➔

If you get consecutive stars (Daily Quest Streak) you can earn bonus experience. Daily Quest Streaks reset after a successful 7-day Streak.

1st day	2nd day	3rd day	4th day	5th day	6th day	7th day
10xp	50xp	100xp	150xp	250xp	400xp	650xp

CHAT

Leaderboards

Targets: Highly competitive, High Achieving

Positive: More questions done

Negative: Focusing only on harder questions

Practicle

Practicle Leaders

Nintendo Switch Console (Grey)
Bond with your family during this stay home period with unlimited fun!

Where Are You (Wonderbly)
Go on a search extravaganza and have fun exploring 6 universes in this adventure book!

Instax Mini 8 Camera (Minion)
Capture your precious moments with friends and family with your own minion polaroid!

Top leaders of this season

	Senior Golden Wolf Level 47		1922 Questions	70183 Exp Gained
	Senior Dylan Teo Level 46		1347 Questions	68294 Exp Gained
	Undergraduate TQE Level 52		1213 Questions	42435 Exp Gained

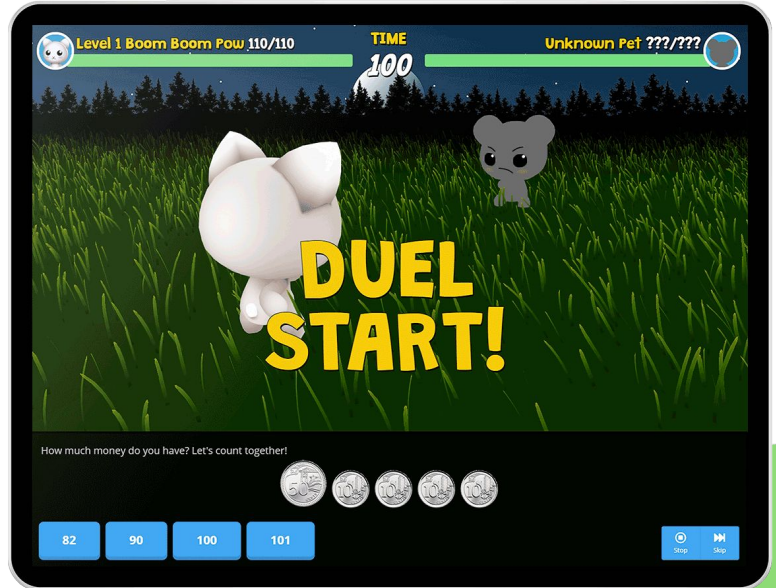
CHAT

Pet Duels

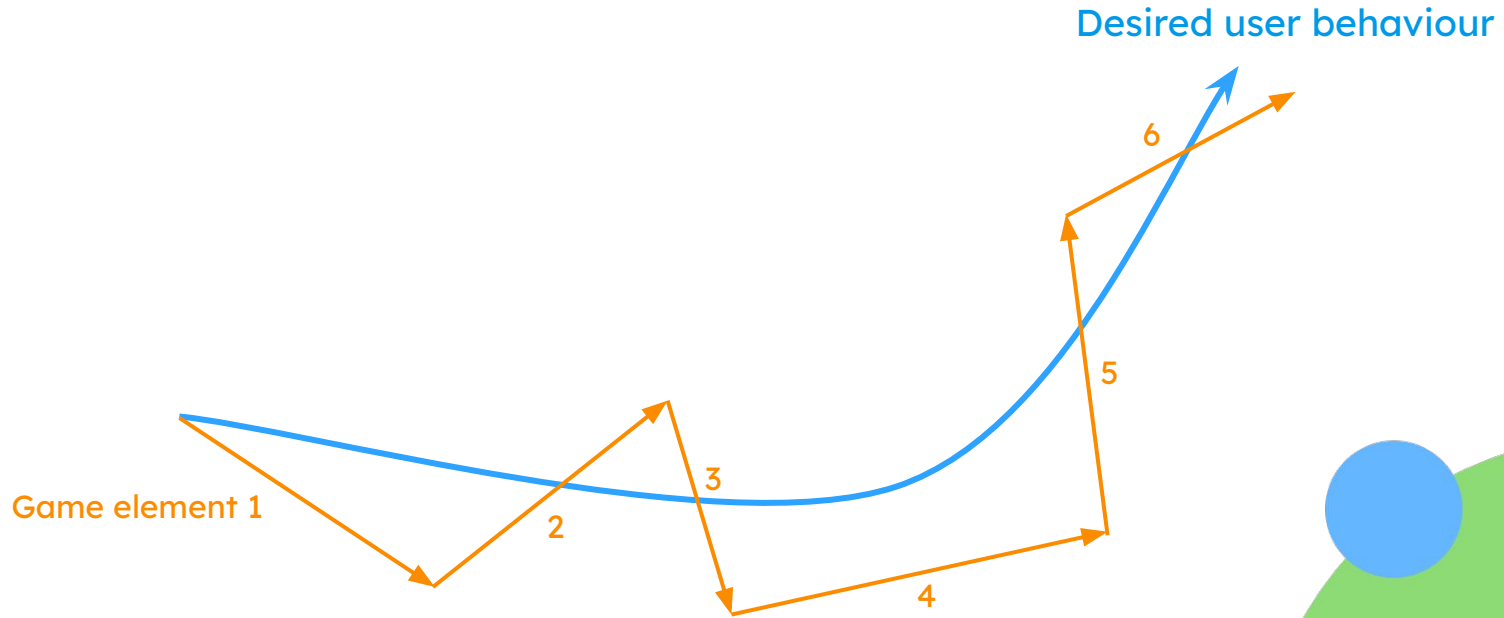
Targets: Everyone

Positive: Students get to practice lower-level Math skills for accuracy

Negative: -



Gamification Complexity





ANY
QUESTIONS?

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