

GameRefinery
By Vungle

Motivations and Demographics Snapshot Report

The motivations driving top mobile games

February 2022



GameRefinery uses a three-layered approach to categorize games

- Using a **Category → Genre → Subgenre** hierarchy we are able to differentiate games in a meaningful way and offer accurate insights for all individual game types currently found in the market
- Our taxonomy is **created together with industry experts** and is based on thorough testing and data-analysis of the market
- In this report we are focusing on **how different motivational drivers are reflected in the mobile gaming market and what types of demographics they typically interest**



GameRefinery's Genre Taxonomy

Motivations and demographics overview



Joel Julkunen
VP of Games

The competition for players' attention and engagement is fierce in the mobile gaming market. With so many games to choose from, it's never been more important for publishers and developers to understand the key motivations of players so they can create gaming experiences that keep players coming back for more.

But getting to the heart of what mobile gamers want isn't easy. The resources that go into creating polls, surveys and feedback channels can eat up valuable time and it's difficult to use these methods to gain insight into an entire market. On top of that, we all have different reasons for playing mobile games. These motivations do not just vary significantly from player to player, but also in ways of how these motivations can be implemented in games. For example, improving skills motivational driver can be implemented in games either through features that require mastering reaction-based skills, like multi-touch controls, or through gameplay that requires thinking-based skills, like Word games.

If you've ever wanted to understand the behaviors and motivations of a game's playerbase, or how to attract new players to your own game by introducing gameplay elements that appeal to their motivations, you're in the right place. In this report, we show with implementation examples how these motivational drivers are reflected in the mobile gaming market and what types of demographics they typically interest.



Key points



Joel Julkunen
VP of Games



- How games appeal to players' motivations can vary depending on the audience. This can differ, for example, in how fast-paced the implementation is or is it more reaction vs. thinking based.
- 4X strategy and tycoon/crafting games appeal to players who enjoy optimizing resources and complex production streams, but they interest different demographics - Players who enjoy optimizing resources are most often between the ages of 25-44, but while men are likely to play more complex genres, like 4X strategy, women prefer casual tycoon/crafting games.
- Casual games have successfully combined renovation elements with entirely different core mechanics. Over the last two years, the trend has accelerated - Every US top 100 grossing casual game released in the last two years uses renovation elements.
- Exploration: Discovering New Worlds is another key driver in the top US 200-grossing titles but implementations vary significantly across the titles that feature this driver.

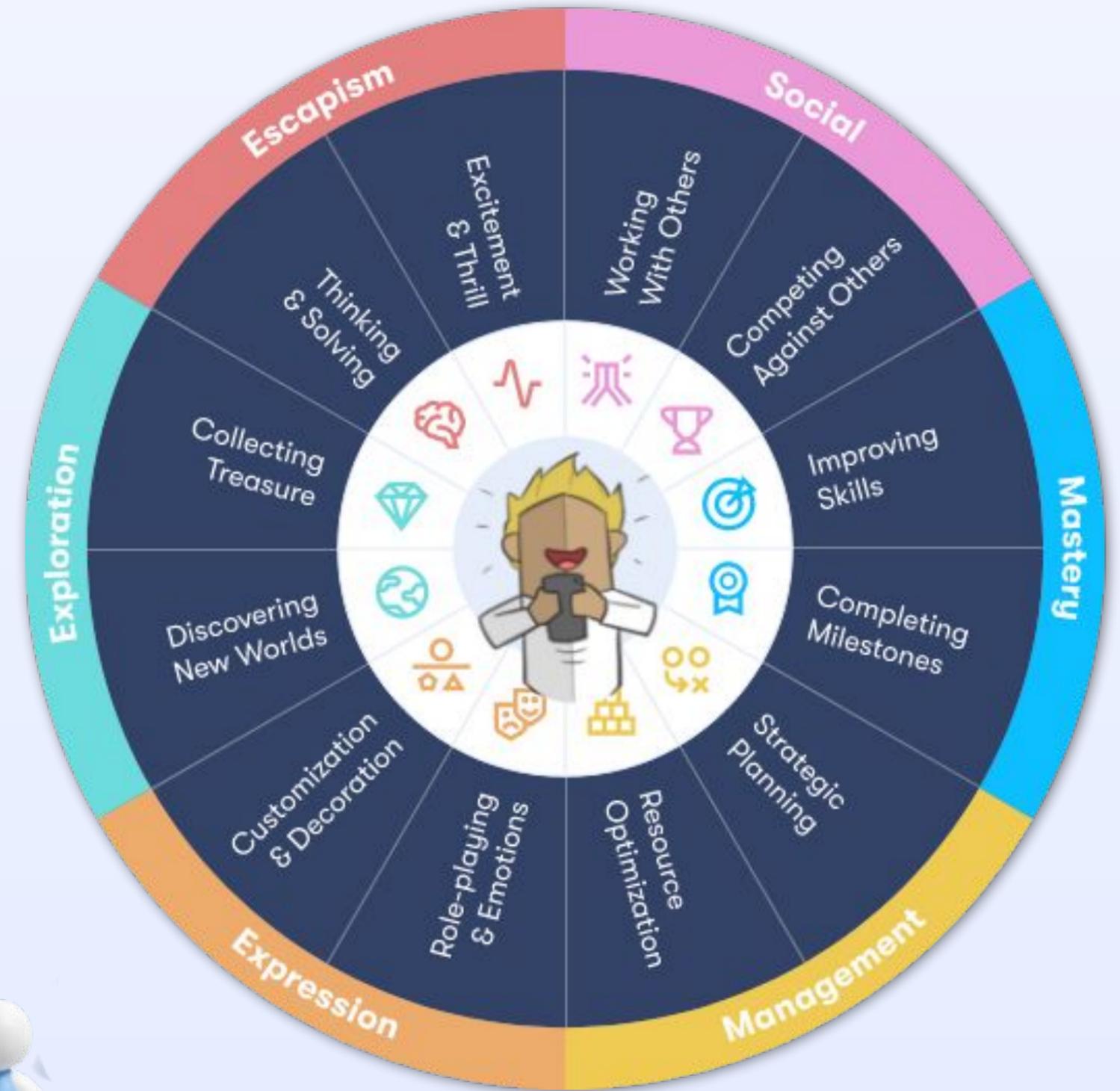
Motivational Driver Framework



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VP of Games

Our current model consists of twelve different Motivational Drivers, each covering a separate player root motivation.

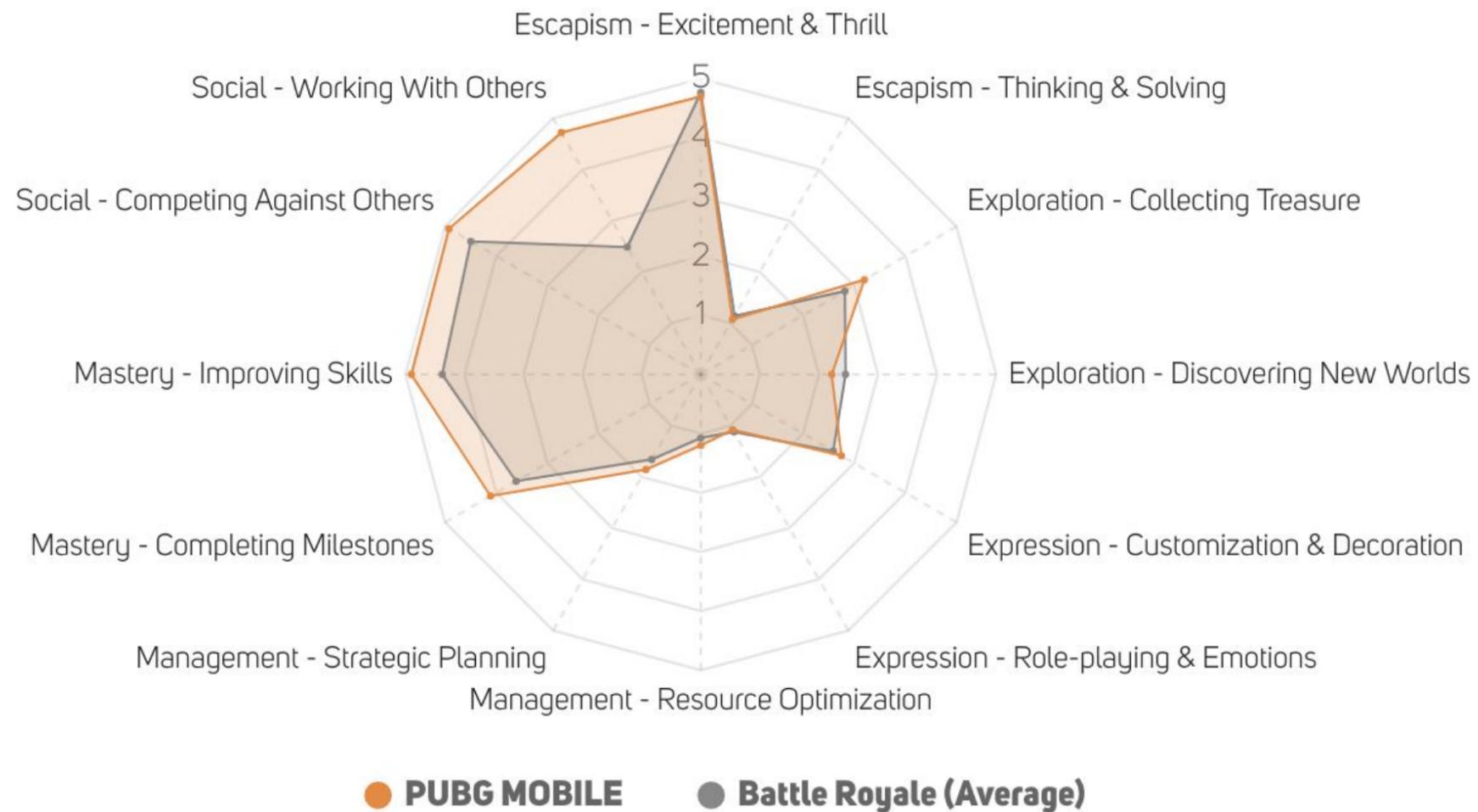
These Motivational Drivers are grouped based on their nature to form meaningful pairs or "motivational groups." As an example, Improving Skills and Completing Milestones falls under the Mastery driver. While no taxonomy or model can perfectly catch every single nuance of player motivations, our approach has proven to be flexible and works on an individual games level and at scale. Ultimately, our model provides a macro-level view, proving an actionable and effective framework in this field.



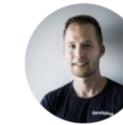
Motivational Driver Framework



Motivational drivers describe the main reasons players enjoy playing the game. Score 5 = very important, 1 = not important.



Source: GameRefinery SaaS platform



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VP of Games

With this model, we're able to estimate with a high degree of accuracy which of the twelve Motivational Drivers any game in the market is catering to.

For example, our data suggest that **PUBG Mobile** caters to players who like to compete with others, enjoy excitement & the thrill of the fast-paced gameplay, and want to get better by improving their skills. That emphasis is a match made in heaven for certain player types, but for those motivated by drivers such as thinking & solving, role-playing, or resource optimization, it might not be an optimal fit.

Motivational drivers - **Escapism and Social**



Escapism		Excitement & Thrill	“I like to experience adrenaline spikes through speed and fast-paced actions or thrill and suspense”.
		Thinking & Solving	“I like to experience a sense of accomplishment through solving puzzles and brain teasers of several kinds”.
Social		Competing Against Others	“I like to experience a sense of power by competing with friends, acquaintances or random people while outwitting, outmaneuvering and outlasting them”.
		Working With Others	“I like to experience a sense of togetherness through working together with friends, acquaintances or even random people while achieving goals and milestones as a team”.

Motivational drivers - **Exploration and Management**

Exploration		Discovering New Worlds	“I like to experience a sense of wonder and curiosity while finding new exciting worlds and areas to explore”.
		Collecting Treasure	“I like to experience a sense of accomplishment by finding new items and characters and completing collections”.
Management		Strategic Planning	“I like to experience a sense of accomplishment through strategic planning and successful tactful maneuvers”.
		Resource Optimization	“I like to experience a sense of fulfilment by optimizing complex streams of production and getting most out of available resources”.



Motivational drivers - **Expression and Mastery**



Expression		Customization & Decoration	“I like to express myself through visual customization and decorations of characters, items or buildings and showing it to others”.
		Role Playing & Emotions	“I like to experience a wide range of emotions by diving into stories and narratives and assuming the roles of heroes or villains”.
Mastery		Improving Skills	“I like to experience a sense of improvement and advancement, whether it’s about sensory skills or cognitive abilities”.
		Completing Milestones	“I like to experience a sense of completion through achieving different milestones and thresholds, each more demanding than the last”.

Motivational data in the GameRefinery service: Escapism - Excitement & Thrill



Features players motivated by excitement and thrill prefer:

PvP - Synchronous	●●●●●
Number of different PvP-modes: 5+	●●●●●
Physics/gravity modeling	●●●●●
Quick tournaments (slots games)	●●●●●
Non-competitive co-op - Synchronous PvE	●●●●●
Defining Mechanic - Blitz Puzzle	●●●●●
Number of different PvP-modes: 3-4	●●●●●

Effect on the motivation

Source: GameRefinery SaaS platform

Escapism



Excitement & Thrill

When we look at the top-grossing 200 mobile games in the US, 23% of the top 200 games score at least four on the Excitement and Thrill driver in the framework. One quarter of these games are slots, making it the largest genre when looking at US top-200 games that interest players looking for escapism through excitement and thrill. Other notable genres include battle royale, arcade sports, fighting, and realistic sports games.

[Read more about which features affect different Motivational Drivers in the GameRefinery service](#)

How **Escapism - Excitement & Thrill** manifests in mobile games

Synchronous PvP modes, multi-touch controls and physics/gravity-modeling

In the case of battle royale, sports, and fighting games, players, particularly younger men, motivated by excitement and thrill, enjoy the adrenaline rush brought by acquiring the needed skills, like aiming or steering, rather than strategic thinking. Mastering various synchronous PvP modes, multi-touch controls, or the game's physics/gravity-modeling, which affects how the game is played and the player's success, motivates these players.

Garena Free Fire - Synchronous PvP mode requires mastering multi-touch controls and aiming



Average player demographics

Male **84%** Female **16%**

Age 16-24 **47%** Age 25-44 **43%** Age 45+ **10%**



Real Racing 3 - Friction in steering and drifting

How Escapism - Excitement & Thrill manifests in mobile games

Quick tournaments and progressive jackpots

Slots games are played for the thrill of hitting the mega jackpots. Various quick tournaments, where a player who can win the most money within a short time period wins rewards, and progressively increasing chances of winning the jackpot are among the popular features that slots games use to create extra feelings of excitement and thrill. **Typically, players aged 45+ enjoy this type of excitement and thrill that doesn't require so much sensomotoric skills.**

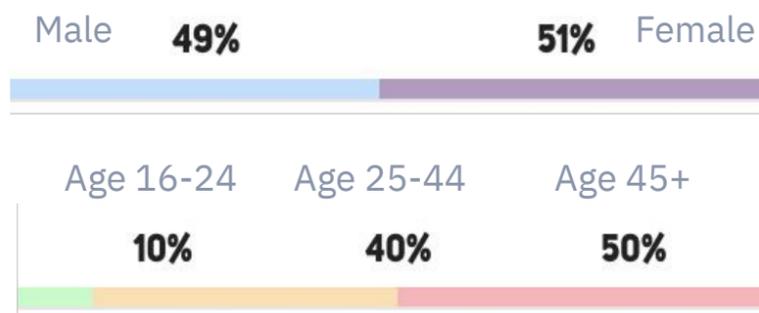
GameTwist Online Casino Slots - Progressive jackpots



Gold Fish Casino Slots Games - Quick tournaments (slots games)



Average player demographics



Gold Fish Casino Slots Games - Quick tournaments (slots games)

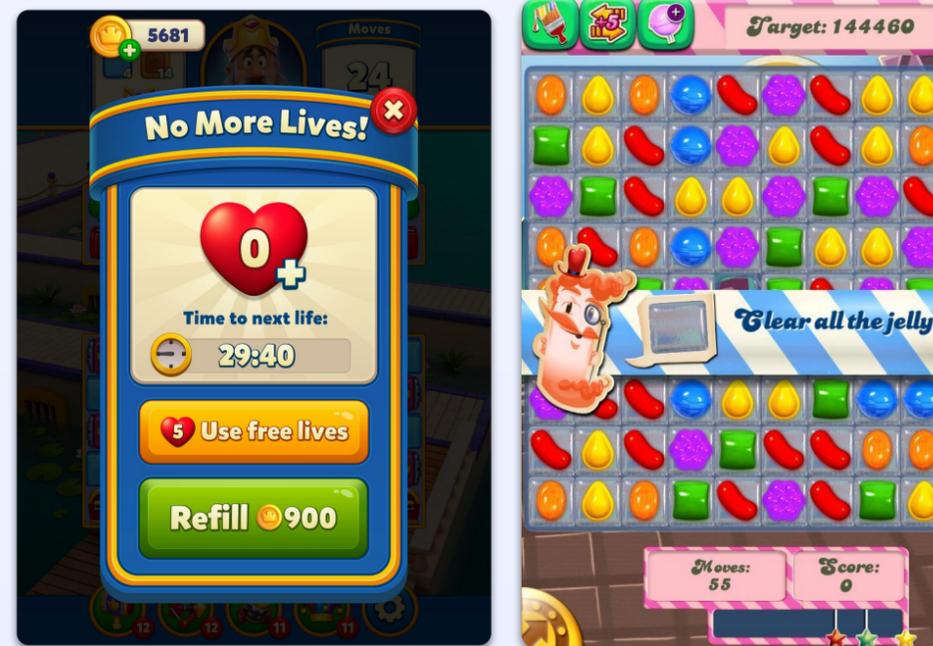
How Escapism - Thinking & Solving manifests in mobile games

Level goals, increasing level difficulty, and monetized continue/retry possibility

In the US top-grossing 200 list, around 20% of games score high on the thinking and solving motivational driver. Most of these games are match3 titles, but there are also other genres that generally require thinking-based skills, such as word, hidden objects, and bubble shooter games.

Players motivated by logical solving enjoy various types of level goals and special mechanics that increase the levels' challenge. They're more likely to pay for an option to retry failed levels and like to immerse themselves in solving various problems and challenges.

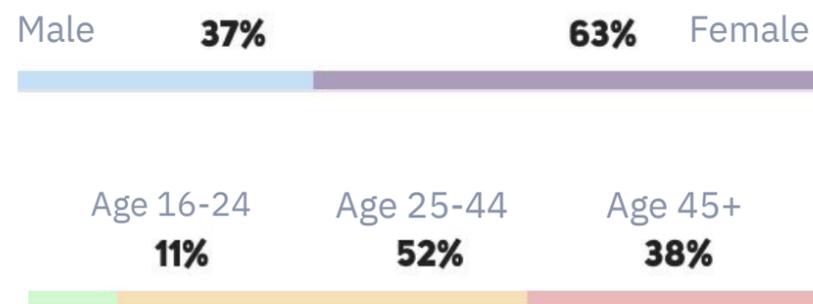
Royal Match & Candy Crush Saga - Monetized continue/retry and level goal



June's Journey: Hidden Objects - Defining mechanic hidden objects



Average player demographics



Game of Words: Word Puzzles - Monetized timers

How **Social - Competing Against Others** manifests in mobile games

(A)synchronous PvP modes, guild mechanics and stealing from others

Players motivated by competing against others enjoy typical midcore genres, such as tactical shooter and 4X strategy genres, but also casual genres with competitive elements, like some board games, **depending on whether they like competing more intensely or casually against others.**

Because players that enjoy competing against others love outwitting, outmaneuvering, and outlasting other players, they're motivated by different (a)synchronous PvP modes, dynamic ranking systems, and guild mechanics. Opportunities to steal other players' resources, currency, or items also thrills them.

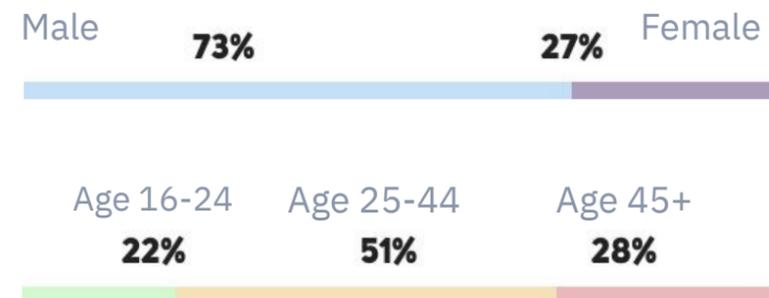
Rise of Kingdoms - Synchronous PvP mode



Rise of Kingdoms - Synchronous PvP mode



Average player demographics



Clash of Clans - Players can steal other players' resources when attacking their bases

How **Social - Working With Others** manifests in mobile games

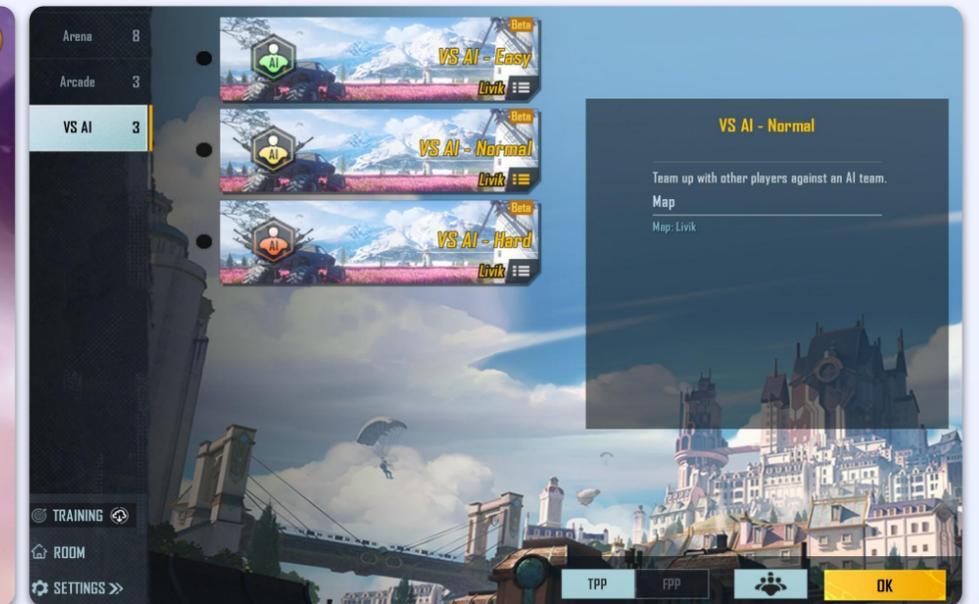
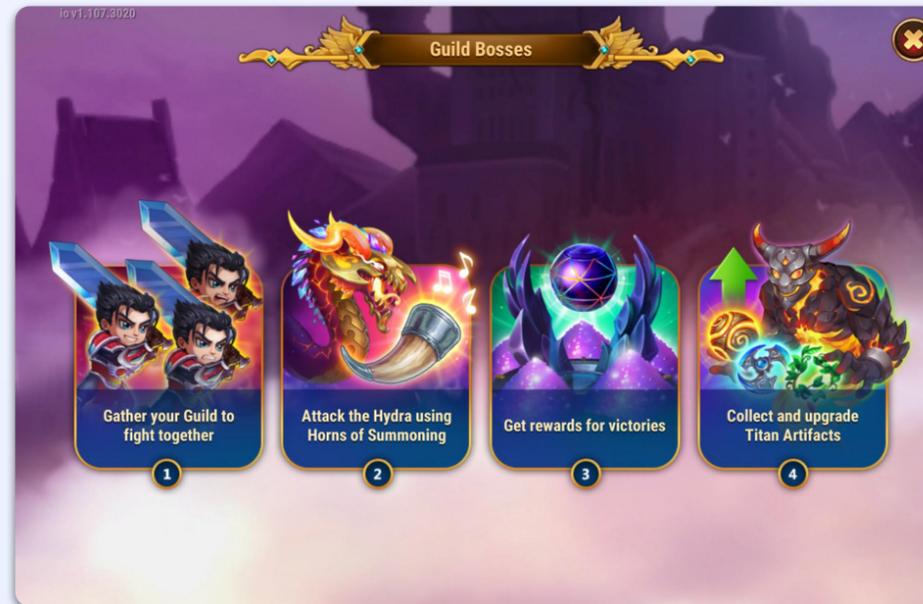
Hero Wars - Fantasy World -
Non-competitive co-op - Asynchronous PvE

PUBG Mobile - Non-competitive co-op - Synchronous PvE

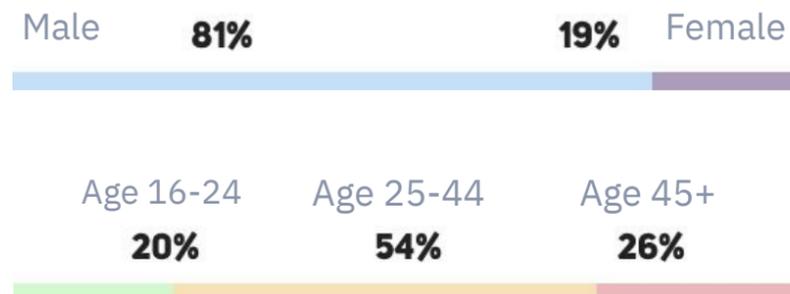
Non-competitive co-op-development efforts and co-op playing modes

Players motivated by working with others through non-competitive co-op development efforts, such as guild perk systems, and co-op playing modes are **typically men aged 25-44 who like different midcore genres**. Most of these midcore games belong to the 4X strategy genre, but there are also battle royale, multiplayer battle arena, and tactical shooter games, which emphasize more reaction-based skills.

Players who like working with others also like to experience a sense of togetherness by borrowing characters, items, or units from other players and donating them.



Average player demographics

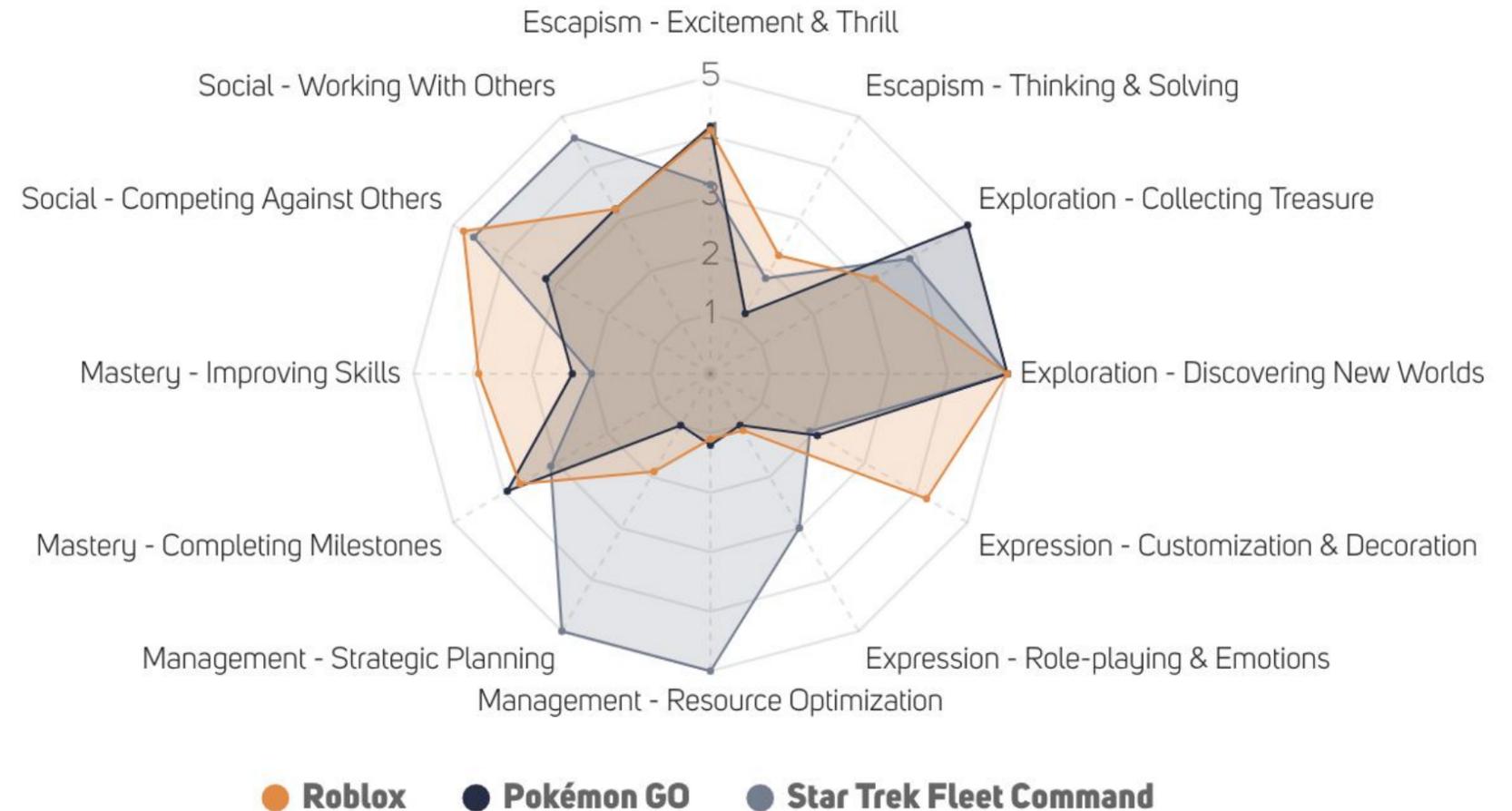


Lords Mobile: Tower Defense - Donate guild treasure to other guildmates

How **Exploration - Discovering New Worlds** manifests in mobile games

Discovering New Worlds elements in the US top 200 games

When we look at the US top-grossing 200 games, we can see a lot of variation in how mobile games have implemented elements of wonder and exploration. Roblox, a sandbox game, Pokémon GO, AR/location-based game, and Star Trek Fleet Command, 4X strategy game, represent different genres of games, but they all score very high on the Discovering New Worlds motivational driver.



Roblox (Sandbox) vs. Pokémon GO (AR/Location-based) vs. Star Trek Fleet Command (4X Strategy) motivational drivers

How **Exploration - Discovering New Worlds** manifests in Roblox



Roblox

Roblox's user-generated games offer almost limitless possibilities for players. The games range from peaceful roleplaying games to platform and adventuring and even shooter, fighting, and racing games. In addition to UG-games, Roblox's rich live-event content makes sure that there's always something new for players that crave novelty.

Roblox - Insomniac World Party limited-time live event



Roblox - Nikeland collaboration event



Player demographics

Male **52%** Female **48%**

Age 16-24 Age 25-44 Age 45+

26% **60%** **14%**



Roblox - Gucci Garden collaboration event

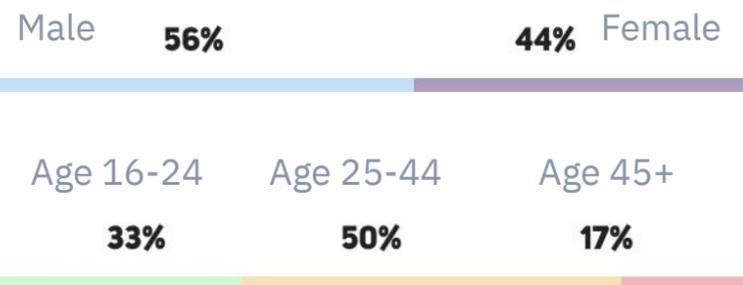
How **Exploration - Discovering New Worlds** manifests in Pokémon GO



Pokémon GO

In Pokémon GO, capturing Pokémon while walking around in the real world ensures that there are always new areas to explore and other nearby players to challenge.

Player demographics



How **Exploration - Discovering New Worlds** manifests in Star Trek Fleet Command

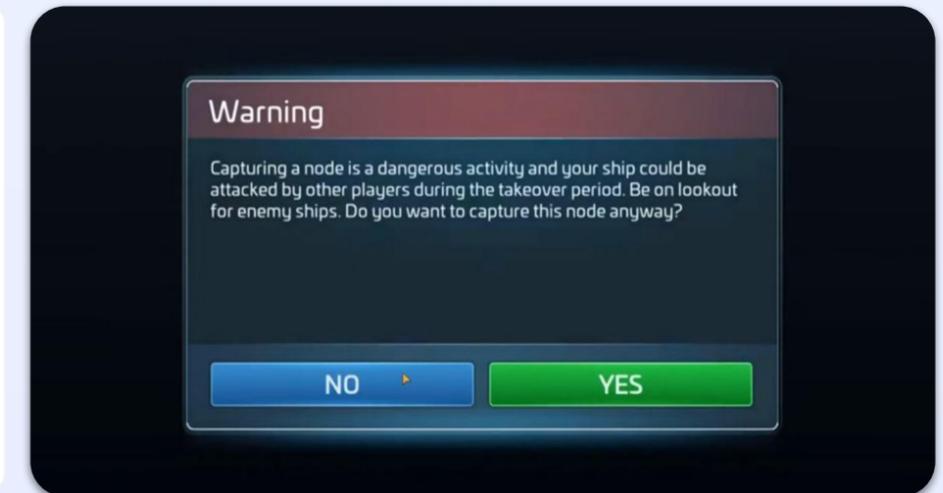
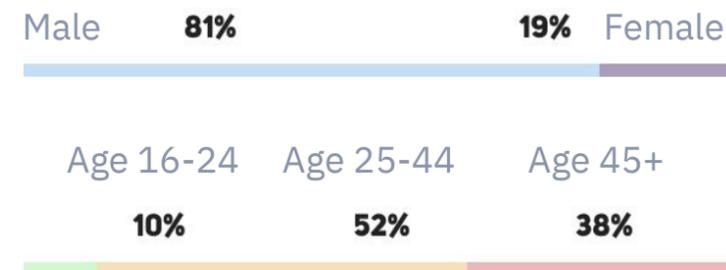


Star Trek Fleet Command

Star Trek Fleet Command differs from the other two games in that the gameplay leans more towards strategic thinking skills than reaction-based skills. Players explore the vast galaxy, completing story-driven quests and fighting in PvP modes. The game's unrestricted open-world PvP-matchmaking allows players to freely attack other players without AI filtering possible opponents for them.



Player demographics



Star Trek Fleet Command - Unrestricted open-world PvP-matchmaking

How **Exploration - Collecting Treasure** manifests in mobile games

Collectibles albums and rare rewards from special PvE modes or levels

Games that consistently offer a wide variety of items, characters, or other items to discover and collect can be found in a variety of different genres on the US top-grossing 200 list, especially after collection systems have found their way to almost all types of mobile games. The majority, about 46% of these games, are slots games, followed by 4X strategy and turn-based RPGs, i.e., genres that lean more towards collecting characters.

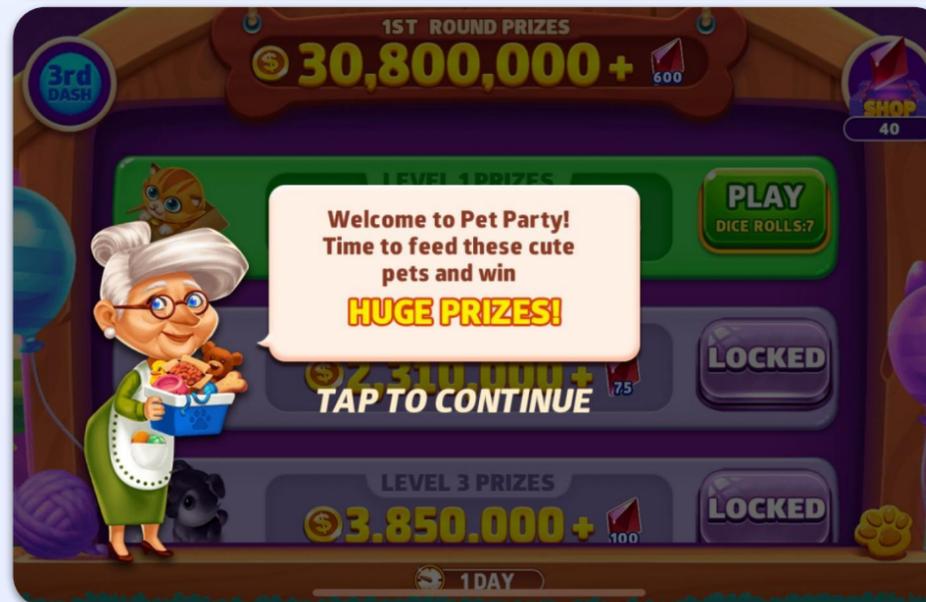
With album collectibles, slots players get additional rewards for completing collections and the joy of showing off their rare items.

Collections don't affect the core game experience, but they're a flexible way of increasing the feeling of progression.

Slotomania™ Vegas Casino Slots - Collectibles album



Huuuge Casino Slots Vegas 777 - rare material items



Cash Frenzy™ - Slots Casino - Special PvE modes and levels



myVEGAS Slots – Casino Slots - In many casino games, players can trigger an autoplay mode to don't have to spin the slots themselves.

How **Exploration - Collecting Treasure** manifests in mobile games

Upgradeable characters and units and shops with gacha mechanics or refreshing wares

Players motivated by finding new items and characters – either through rewards, purchasing, or combining and crafting items – are usually interested in traditional character collection-based genres like 4X strategy or turn-based RPGs.

However, younger players prefer more casual games that emphasize collecting characters or rare items like Pokémon GO or Kim Kardashian: Hollywood.

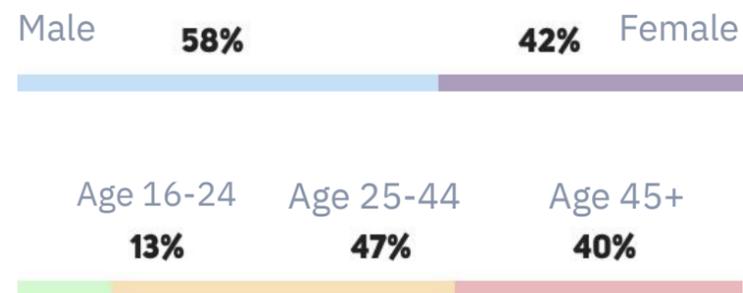
Star Wars™: Galaxy of Heroes - Character collection



State of Survival - Equipment items that give characters boosts



Average player demographics



Kim Kardashian: Hollywood - Limited-time gacha

How Management - Strategic Planning manifests in mobile games

Numerous troops to train, upgradeable permanent buildings and guilds

Of the US top-grossing 200 games, only 11% score high on the strategic planning motivational driver, and over 70% of these games are 4X strategy games. In other words, players who like strategic planning and executing tactical maneuvers often turn to traditional 4X strategy games. Still, the top list also includes genres like card battlers and sovereign games, which have similar tactics but are implemented around a different theme. In these games, players motivated by strategic planning enjoy training as many troops as possible simultaneously, upgrading permanent buildings, acquiring different permanent boosts, and various guild mechanics.

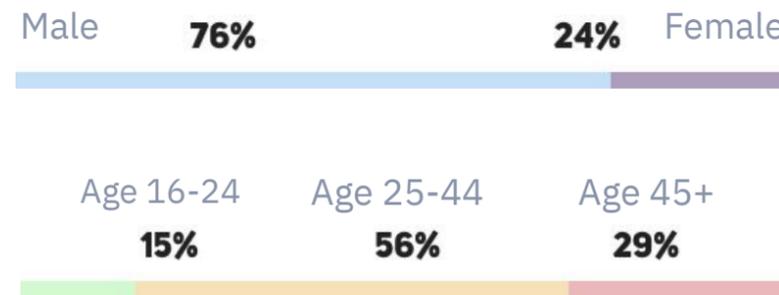
Kiss of War - Upgrading battle units increases player's performance in battles.



West Game - Upgrading permanent buildings



Average player demographics



Yu-Gi-Oh! Duel Links - Strategy and tactics play an important role in the players' success.

How Management - Resource Optimization manifests in mobile games?

Multiple different permanent buildings, resources or unit types

When we look at the US top-grossing 200 games that score high with the resource optimization motivational driver, we can see that two genres particularly attract players motivated by this driver.

Both 4X strategy and tycoon/crafting games appeal to players who enjoy optimizing complex production streams and getting the most out of available resources, but they interest different demographics. For example, women favor tycoon/crafting games more because of their more casual elements, whereas the complex, competitive warfare elements of 4X strategy games seem to appeal mainly to male audience.

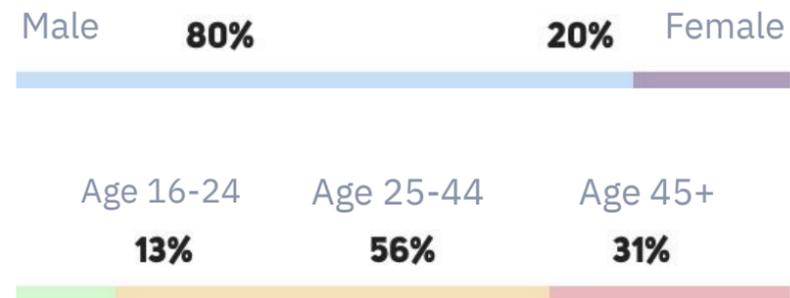
The Lord of the Rings: War - Troops are divided into melee and ranged ones, each having their strengths and weaknesses.



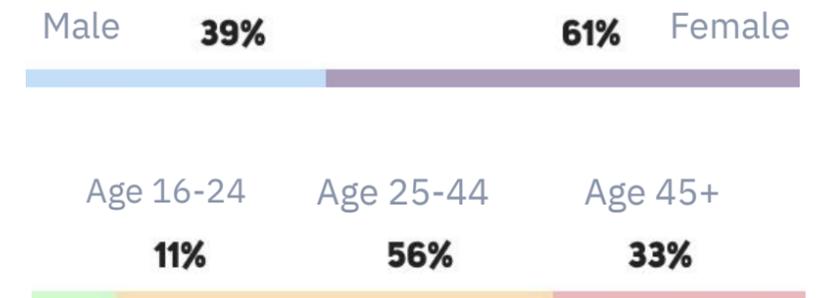
Family Island — Farming game - Players gather resources to upgrade their permanent buildings to gain boosts.



Player demographics - 4X Strategy



Player demographics - Tycoon/Crafting



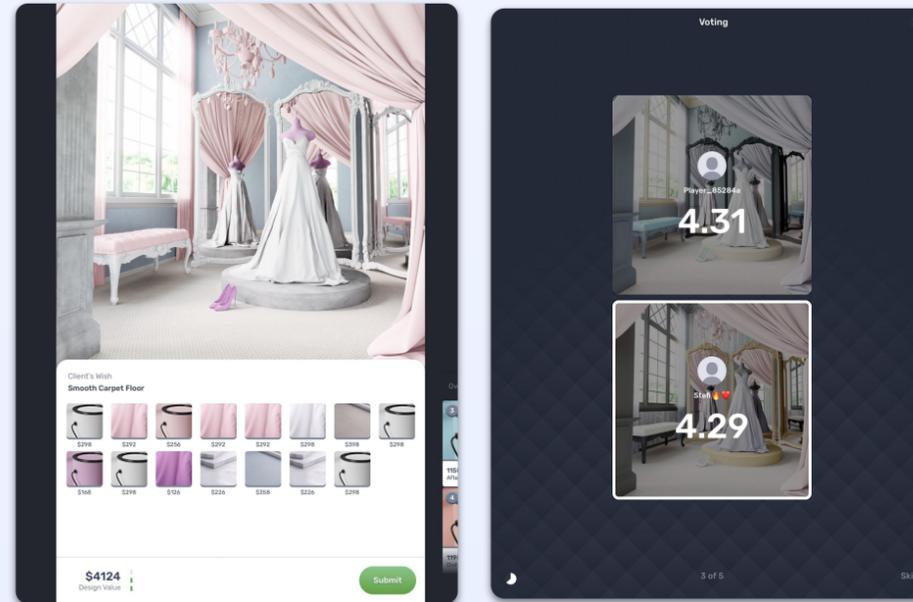
How **Expression - Customization & Decoration** manifests in mobile games

Fashion and home decoration themes, decorative buildings and skins

The top US games that score high on the customization and decoration motivational driver are mostly a variety of casual games. For example, in customization games, players motivated by customization can express themselves through the decoration of characters, items, or buildings and show it to others. Other similar elements can be found in the adventure and tycoon/crafting genres as well.

Games often feature fashion and home and decor themes. They include multiple buildings or skins that are purely decorative and meant for "bragging" purposes only and have no (or minimal) effect on the actual gameplay. Also, the games' main character(s) often tend to be women because the main player target group for these games is often female.

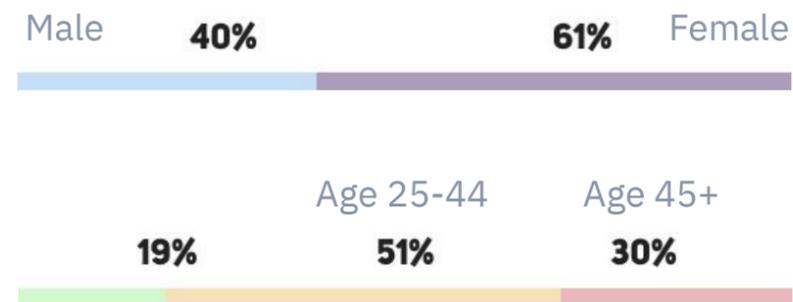
Redecor - Home Design Makeover - Customization game with an interior design theme



Family Farm Adventure - Decorative furniture



Average player demographics



Project Makeover - Players earn coins from match3 levels, which are used to complete tasks to progress further in the makeover.

How **Expression - Customization & Decoration** manifests in mobile games

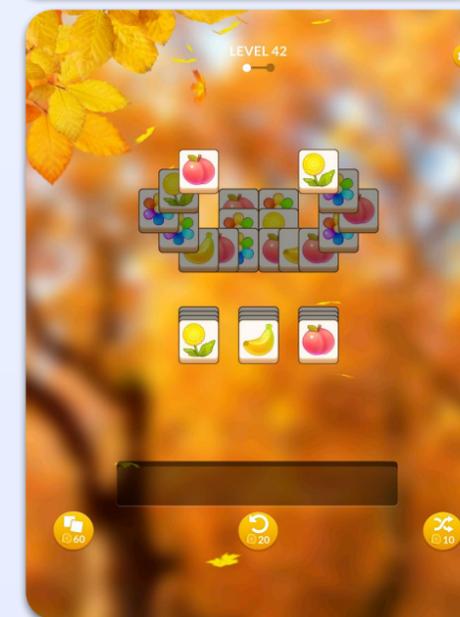
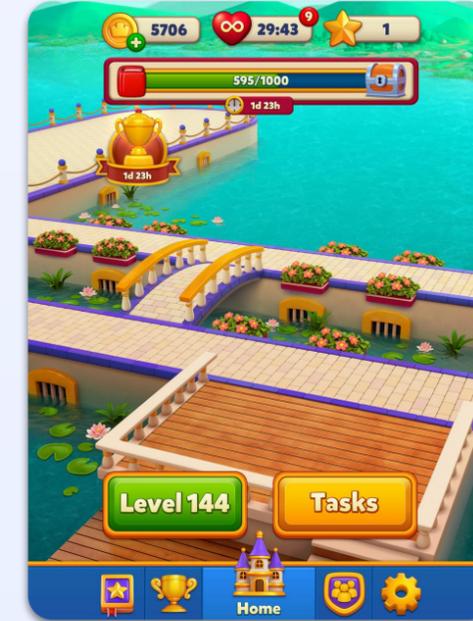
Casual renovation mobile games

Casual games have successfully combined renovation elements with entirely different core mechanics in the past because renovation elements tap well into casual players' psychological drive of wanting to clear up space and improve it. However, over the last two years, the trend has accelerated even more - **currently, every US top 100 grossing casual game released in the last two years uses renovation elements.**

One of these games is Royal Match, where players complete match3 puzzle levels with various goals to get stars to renovate different rooms. One recent example from the US top-grossing list is Zen Match. It's a mahjong-style puzzle game, where players match puzzle tiles together on a mahjong-like board to earn currency to design interior styles for rooms.



Match3 Puzzle Royal Match



Mahjong Solitaire Zen Match

How **Expression - Role-playing & Emotions** manifests in mobile games

Storytelling, main characters, and relationship systems

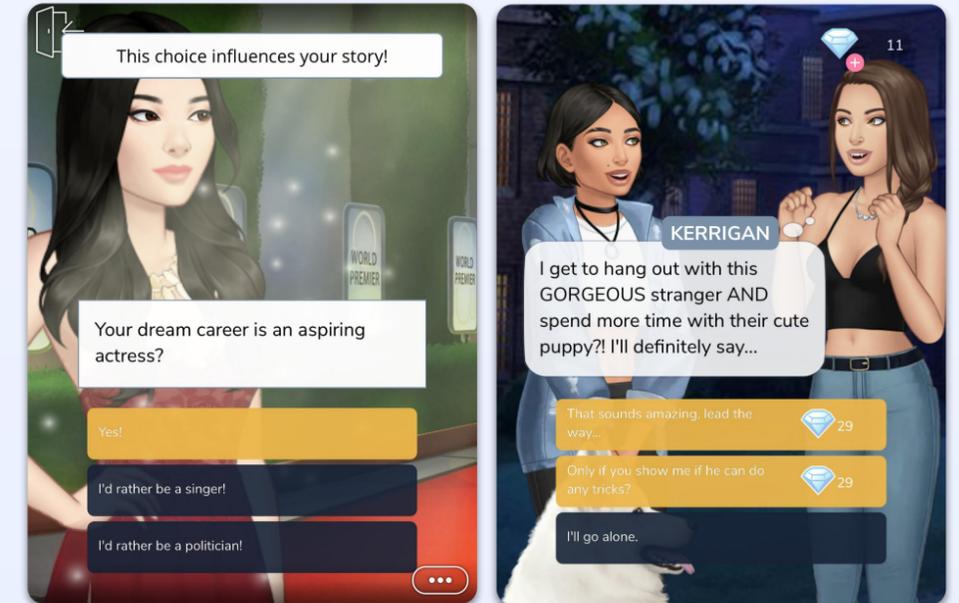
Role-playing and emotionally diving into stories is not a big motivational driver in the US mobile gaming market, as only 5% of the US top-grossing 200 games score high on that motivator. Mainly these games are interactive stories, adventure games, and turn-based RPGs.

However, while all of these games feature storytelling elements, relationship systems with in-game characters, and main characters in their storylines, they are very different overall. **In TBRPGs, narrative elements are just one aspect of many, while interactive story games focus mainly on storytelling and the player's choices that affect it.** This is also reflected in the player demographics of the games, as interactive stories and adventure games tend to interest more females while TBRPG players are primarily men.

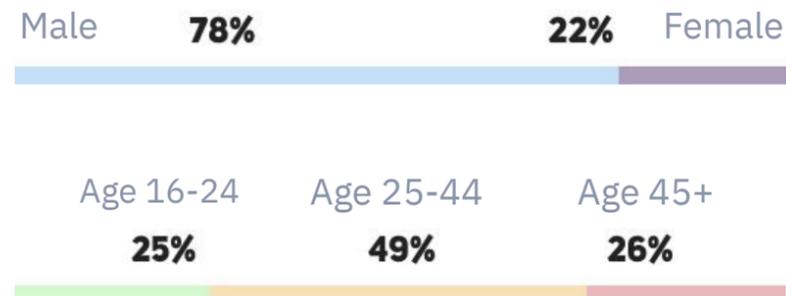
The Seven Deadly Sins: Grand Cross - Narrative elements pop up from time to time as the player progresses in the game.



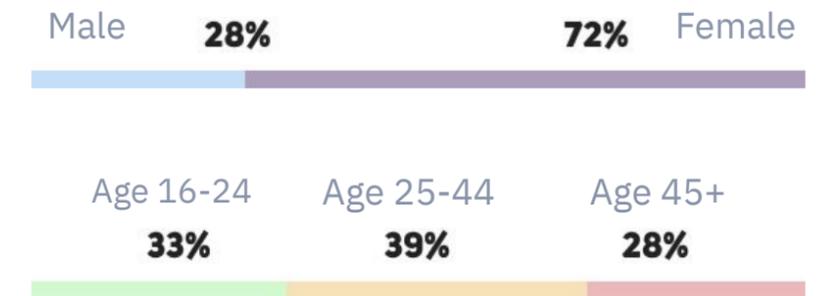
Episode - Choose Your Story - Player's choices affect how the game's story progresses or how the characters or their relationships develop.



Player demographics - TBRPG



Player demographics - Interactive Story

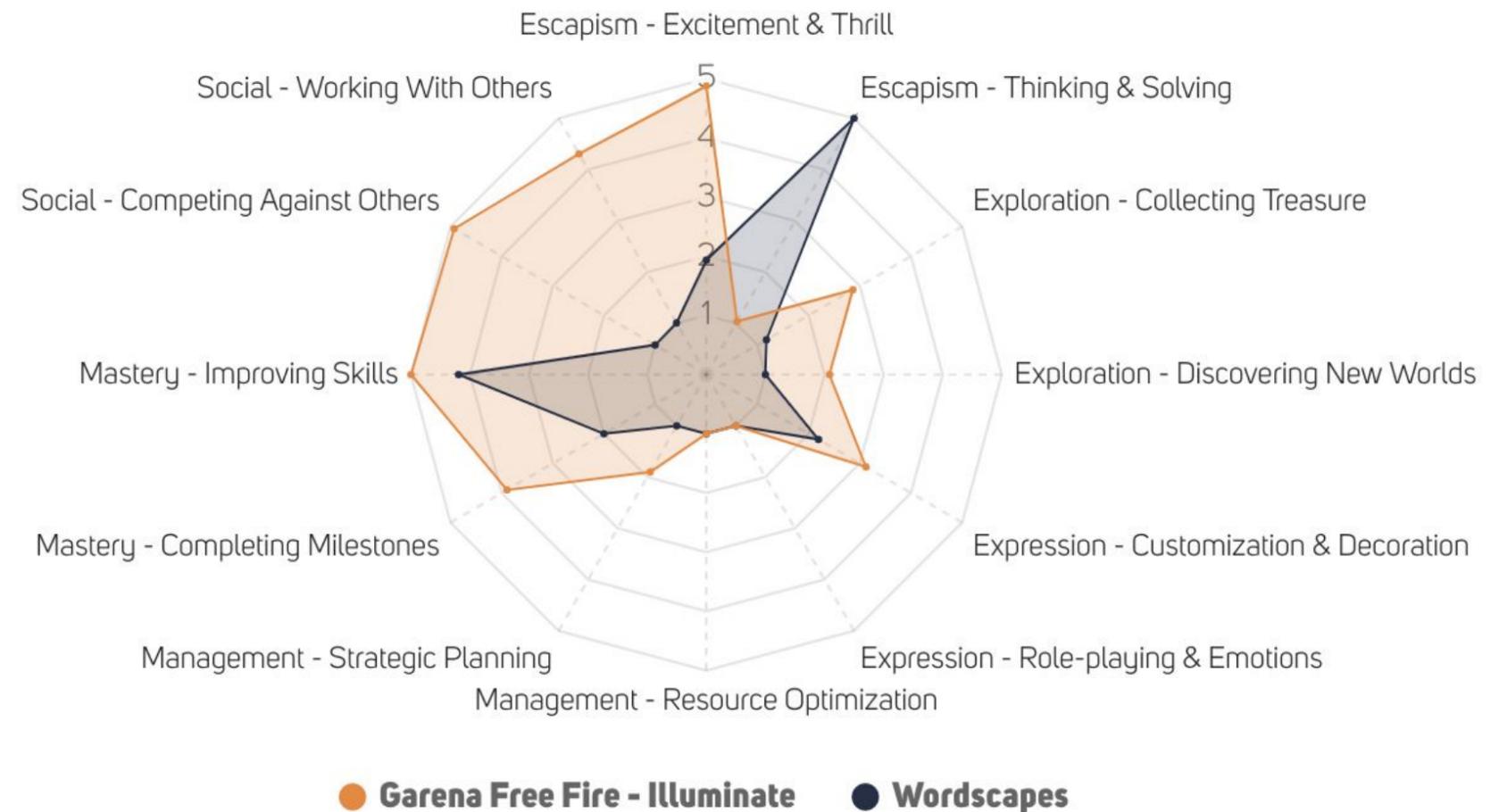


How **Mastery - Improving Skills** manifests in mobile games

Reaction-based vs. thinking-based skills

There are several genres on the US top-grossing 200 list that have games that score high on the improving skills motivational driver. Most of these games are a variety of midcore games that emphasize reaction-based skills, such as speed or aiming, but there are a couple of sports and driving games as well. However, there are also a few casual genres that stand out from the majority: rhythm-based, time management, and puzzle and word games. The first two genres emphasize more reaction-based skills, while word and puzzle games emphasize logical thinking.

How games appeal to players' motivations can vary depending on the audience. This can differ, for example, in how reaction vs. thinking based the implementation is.



Garena Free Fire (Battle Royale) vs. Wordscapes (Word) motivational drivers

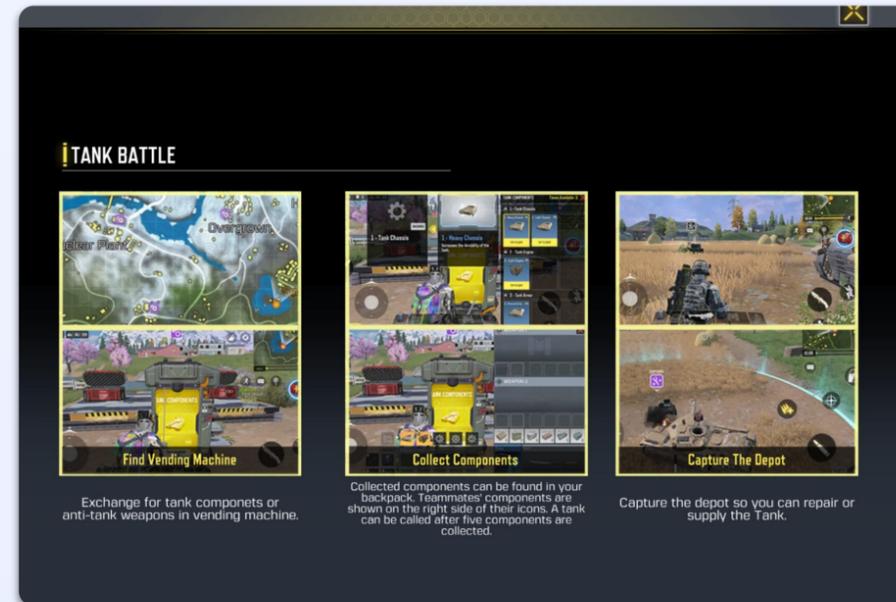
How **Mastery - Improving Skills** manifests in mobile games

Synchronous PvP-modes, Special PvE modes and levels, multi-touch controls

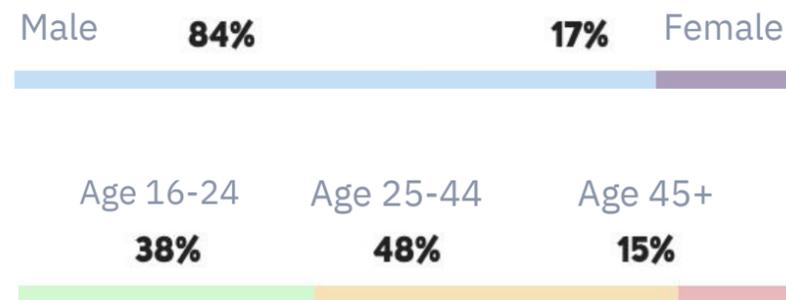
Players who prefer sensory-based skills enjoy synchronous PvP modes, often requiring mastering of multi-touch controls and games' physics/gravity-modeling. Another good example is reaction-based skills in rhythm games.

In turn, players who want to improve their cognitive solving skills often enjoy word games and getting better at them on a daily basis.

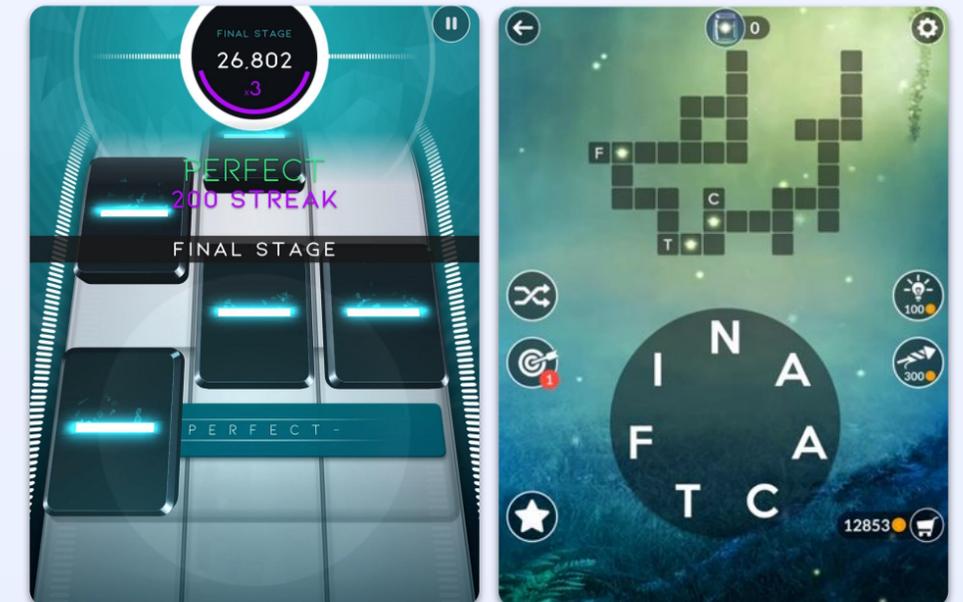
Call of Duty: Mobile - The game contains different PvP modes to train and master reaction-based skills.



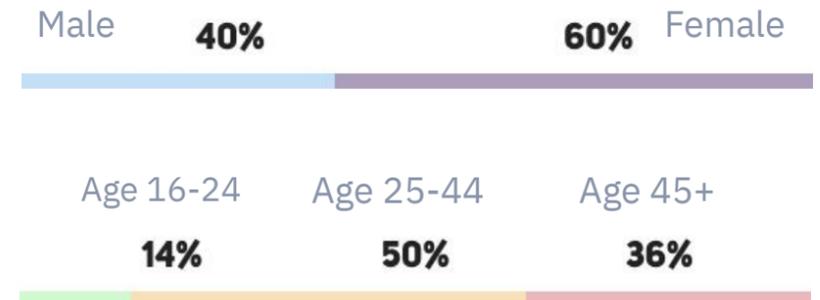
Player demographics - Midcore games



Beatstar & Wordscapes - Two casual games with different skill emphases



Player demographics - Casual games



How **Mastery - Completing Milestones** manifests in mobile games

Task/quest systems, leveling up, non-competitive co-op development efforts

Players motivated by completing milestones enjoy different task systems, non-competitive co-op development efforts, collectible albums, and various leveling/progression mechanics.

This motivation is an essential part of any midcore game with power progression, like the tactical shooter War Robots Multiplayer Battle or any RPG. On the casual side, they emerge as an essential part of core gameplay progression in games such as idlers, tycoon/crafting, or merge games. In these latter game types, **the pace of completing tasks is often peaceful and requires more thinking-based skills.**

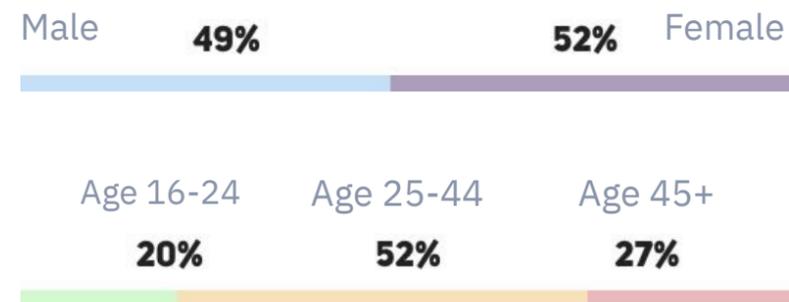
Lumber Empire: Idle Tycoon - Core game is completing peaceful tasks



Township - Daily and ongoing tasks for the player to complete



Average player demographics



Marvel Contest of Champions - Side quests system



Joel Julkunen
VP of Games

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12 Player Motivations

1. Choose Market
us

2. Select optional categories
GENRES
Casual, Mid-core
SUBGENRES
Build & Battle

3. Select optional Filter
Session Length Game Progression
Gacha Iap & Monetization
Live Events Appointment Mechanics

Clash of Clans
Supercell
Build & Battle

FEATURE INDICATORS
Powerscore 82
Skill Thinking

MONTHLY PERFORMANCE
Average Grossing Rank 10
Average Download 195K
REV / DL \$30.1

