

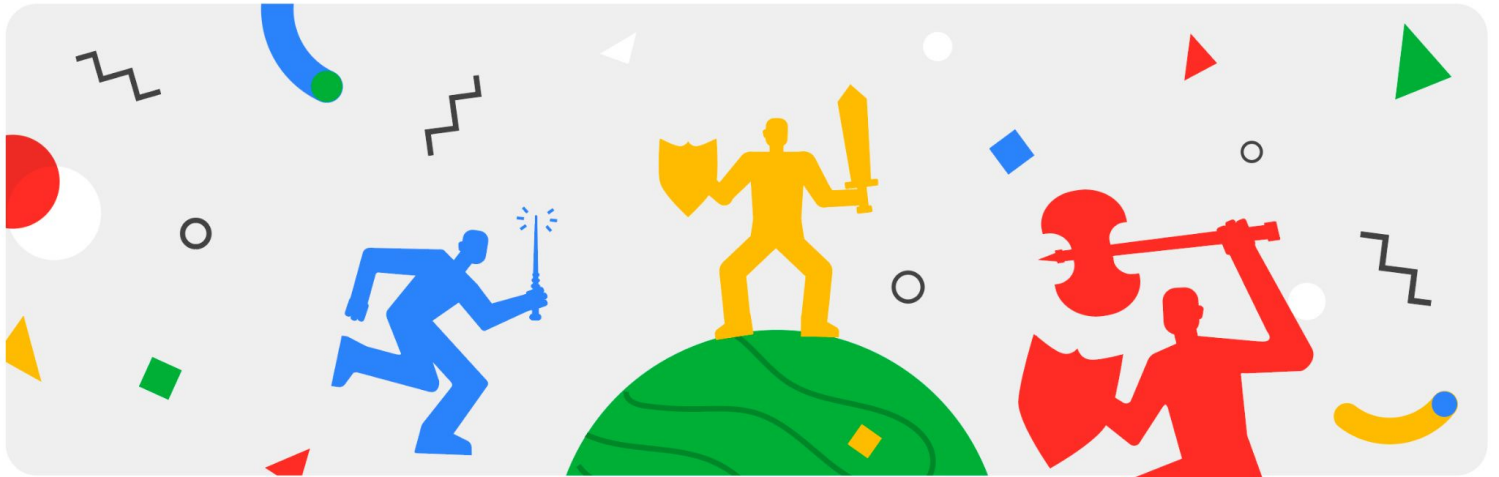


▶▶ GAME GENRE REPORT

BATTLE ROYALE

by Howard Chen

This whitepaper offers mobile game developers KPI benchmarks and player behavior trends within specific genres to better understand opportunities to increase performance.



► Overview

This report is part of a series of Google Play deep dives into popular mobile game genres and subgenres. In our [first report](#), we reviewed growth trends and insights from the 4X Strategy genre. This time, we turn our focus to battle royale, a genre that has recently seen explosive growth.

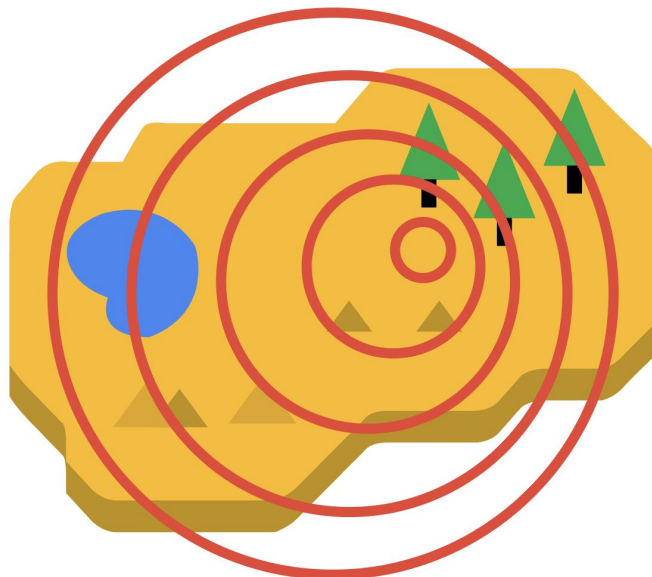
Our goal in producing these game genre reports is to support developers by helping them optimize existing games or plan new game launches. The reports include KPI benchmarks that help to understand a genre's relative performance and identify trends in player behavior to gauge player affinity across genres. We're sharing these insights to help teams prioritize feature roadmaps and develop retention and monetization strategies.

Battle royale is a subgenre of the shooter genre. Battle royale games combine shooting game combat mechanics with last-person-standing survival gameplay, where a player or a squad of players' primary goal is to survive a shrinking map against 50 or more players.

This report covers insights from the battle royale genre in 2020. Unless otherwise indicated, data cited is from the 15-month period from January 2020 to March 2021. If you want to review your game's performance, use the Google Play Console to compare it against the weighted average performance of top titles in the battle royale and other genres.

► Genre Overview: Battle Royale

A battle royale game is a competitive multiplayer game type where players work against game and map elements, including other players, to be the last one standing. Typically, players traverse a large but constantly shrinking map that slowly funnels players into certain regions and ultimately closes on a single point on the map. This setup encourages player conflict and strategic navigation of the terrain. If a player is caught outside of the map as it's shrinking, their health will drop until they are killed or taken out of the game.



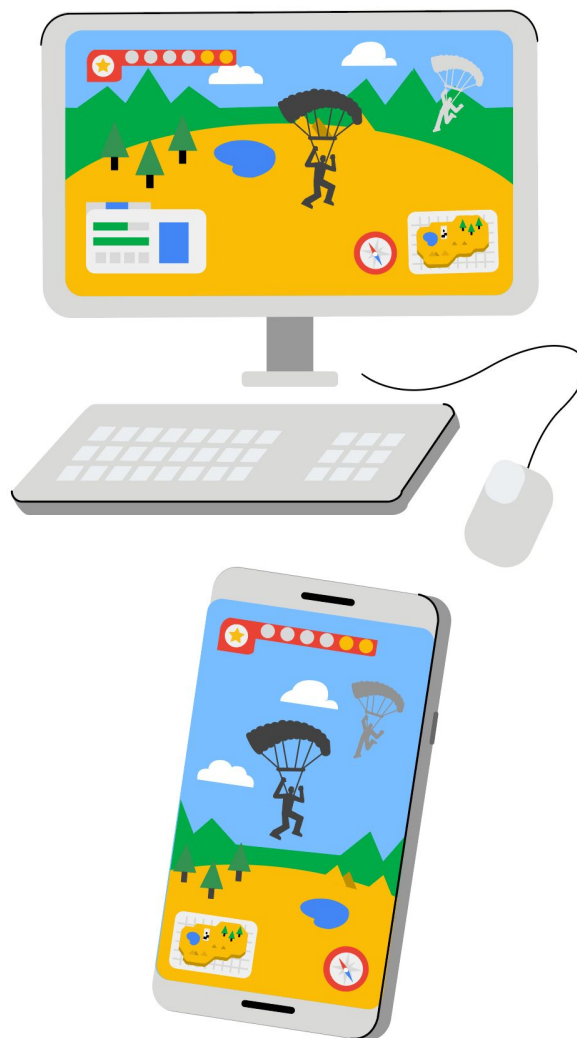
Players start the game with limited resources. When a session starts, they can scavenge for items and build a toolkit out of consumables and weapons to help them survive.

More than 100 live players can play a game at the same time, creating an intense and chaotic environment. The most common way to win is to eliminate other players while navigating to the final circle on the map. The player who manages to survive wins the game, or a “chicken dinner,” as it is called in game terminology.



► Genre History: Battle Royale

Battle royale is a relatively new genre to Google Play (around four years old), but the game type has been around since the early 2010s, when independent game modifications were developed and played among a small community of gamers. Mobile game versions were introduced in early 2019. Inspired by cultural phenomena such as The Hunger Games film series and the battle royale movie, it wasn't until late 2017 that the first major standalone game, PlayerUnknown's Battlegrounds (PUBG), saw major commercial success. The genre's popularity then skyrocketed, aided by a growing live streaming viewership intrigued by the natural difficulty of winning the game. PC-based battle royale games can support upwards of 150 players and take 40 minutes to finish, while mobile versions have fewer players and faster games lasting only 10 to 15 minutes.



Battle royale is now one of the most played and watched genres, with many spin-offs across all gaming platforms: PC, console, and mobile. But as the genre becomes more competitive, with more games entering the market, developers have made notable KPI improvements in new user engagement, onboarding, and monetization.

► Genre Affinity: Shooter genre player behavior

Battle royale gamers compose a large portion of Google Play's ecosystem, as the genre is rapidly becoming one of the biggest in mobile. The typical battle royale player skews young and male, compared to other popular genres on Google Play, such as role playing games, strategy games, and match 3.

These players enjoy the twitch-based, fast-paced action that characterizes a battle royale game and is found only in a small subset of genres on Google Play. Mobile games often feature *lean back* playstyles, where you can easily multitask and still be competitive. Mobile does not offer as many *lean in* play styles, where you have to fully focus on the screen to be competitive.

Battle royale games are part of the shooter parent genre. To better understand battle royale player behavior, it is helpful to compare shooter game players to players of other lean in multiplayer genres.

These genres include:

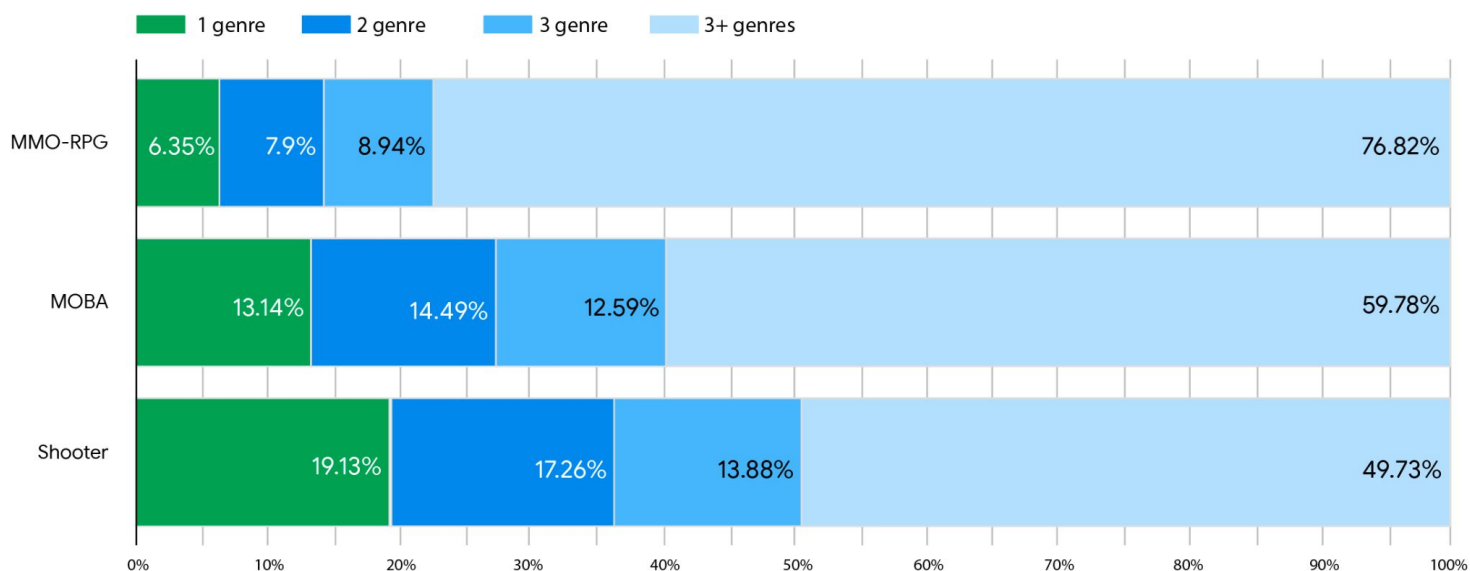
- **Massively multiplayer online role-playing games (MMO-RPG)**, where thousands of players are playing on a persistent server.
- **Multiplayer online battle arena (MOBA) games**, where small teams of players strategize and compete against one another.



Shooter game players have a high affinity for the MOBA genre, as shooter and MOBA games are the premier competitive multiplayer games on Google Play and are used as the primary benchmark.

► Cross-genre gameplay

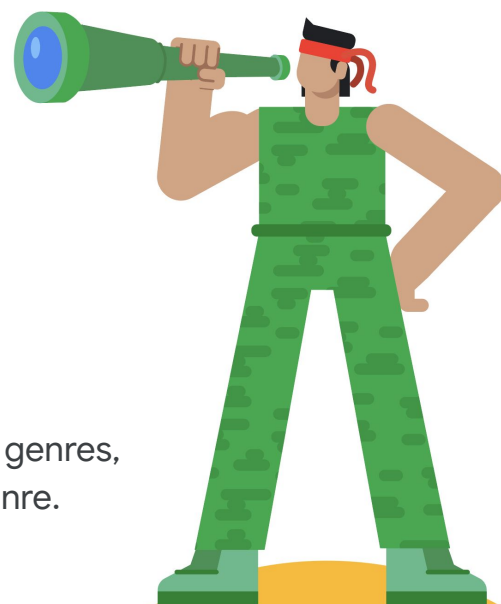
Let's start by looking at cross-genre gameplay



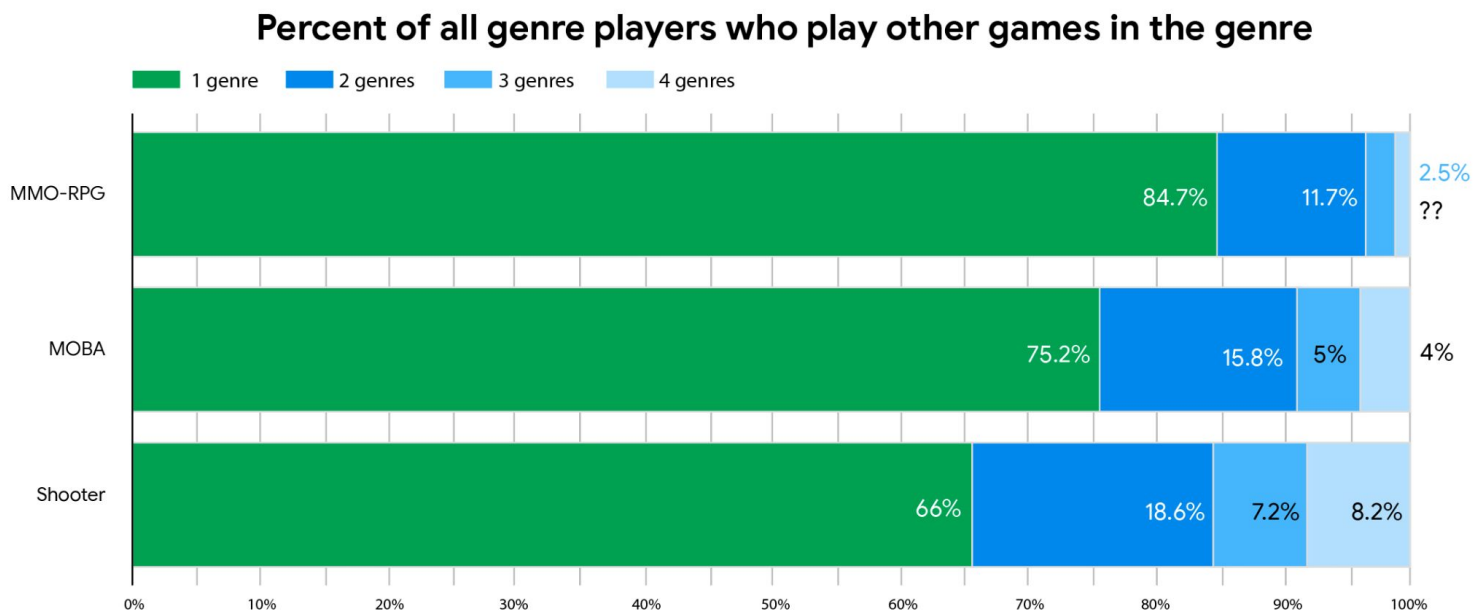
Source: Google Play (May 2021)
Caption: Percent of all genre players who play other genres

As you can see, 19 percent of all shooter game players play *only* shooter games, which is a much higher percentage than MMO-RPG or MOBA. This demonstrates that shooter game players prefer to play twitch-based, lean-in multiplayer games and are less likely to explore other genres compared to players of other genres. We also see that players in other genres are more likely to play multiple genres on Google Play. For example, 77 percent of MMO-RPG players and 60 percent of MOBA players play more than three genres. On the other hand, less than 50 percent of shooter game players play as many genres.

While shooter game players are less likely to be playing other genres, they are more likely to be playing multiple games from the genre.



▶ Cross-genre gameplay



For MMO-RPG players, 85 percent of players play only one game in the genre, and that makes sense as the progression to level up a character or guild creates a high cost for switching from game to game.

For shooter games, **progression is not as important as the meta loop resets**: when a player loses a match, the next match is a complete reset of the experience. Therefore, **the cost of switching among shooter games is lower** compared to other mid-core genres. This is borne out by the affinity analysis, which reveals that 66 percent of shooter players play only one game in the genre. But 19 percent play two games and upwards of 8 percent or more users play four games in the genre.

The comparison to MOBA is interesting as we consider it to be a close genre peer to shooters as they share competitive multiplayer gameplay. We find that 75 percent of users play one MOBA game, and **shooter players are twice as likely to be playing four games in the genre compared to MOBA**.

Shooter players' willingness to play a variety of games in the genre suggests that there's still room for developers to invest in battle royale games.

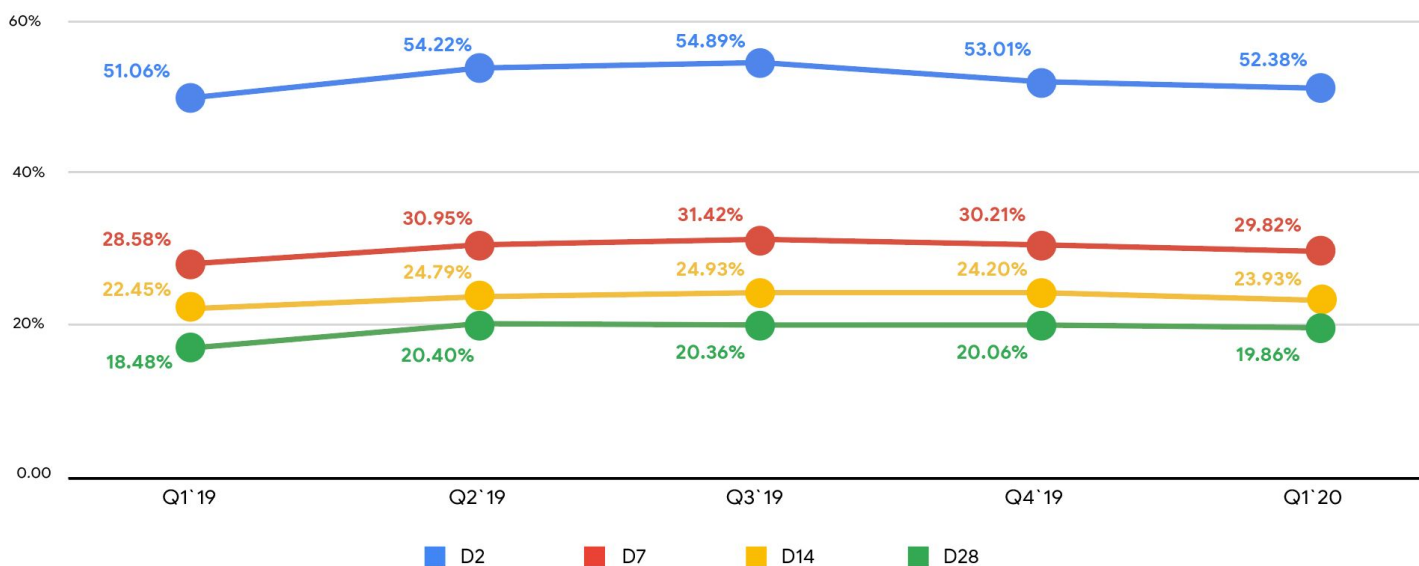
► Retention and engagement: Battle Royale

Now, let's turn our attention to the trends being seen in KPIs for the battle royale genre.

The top battle royale games have strong retention, and last year developers made incremental improvements throughout the funnel. In Q1'20, the average D2 retention of top battle royale games was 51 percent.

D2 for battle royale titles improved last year, from 51 percent to upwards of 55 percent before settling at 52 percent, a 2.58 percent growth year over year. Considering the large number of users that are now playing battle royale games, the scale of users at 2.58 percent is significant.

Retention trends from Q1'20 to Q1'21 for battle royale

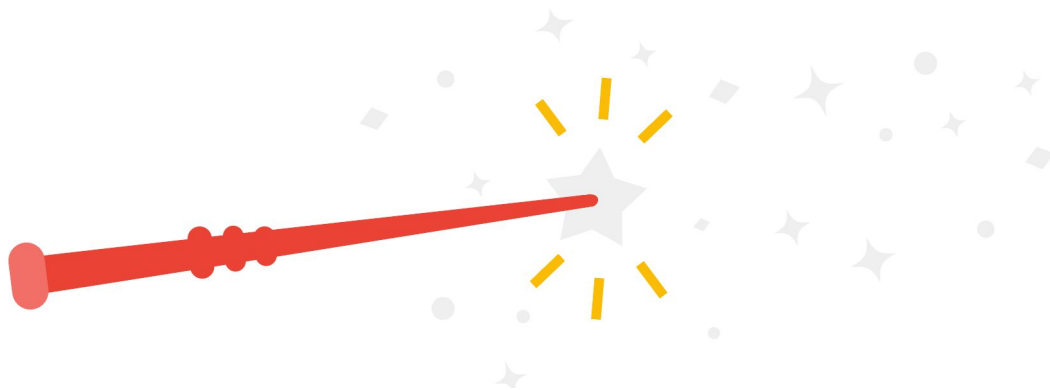
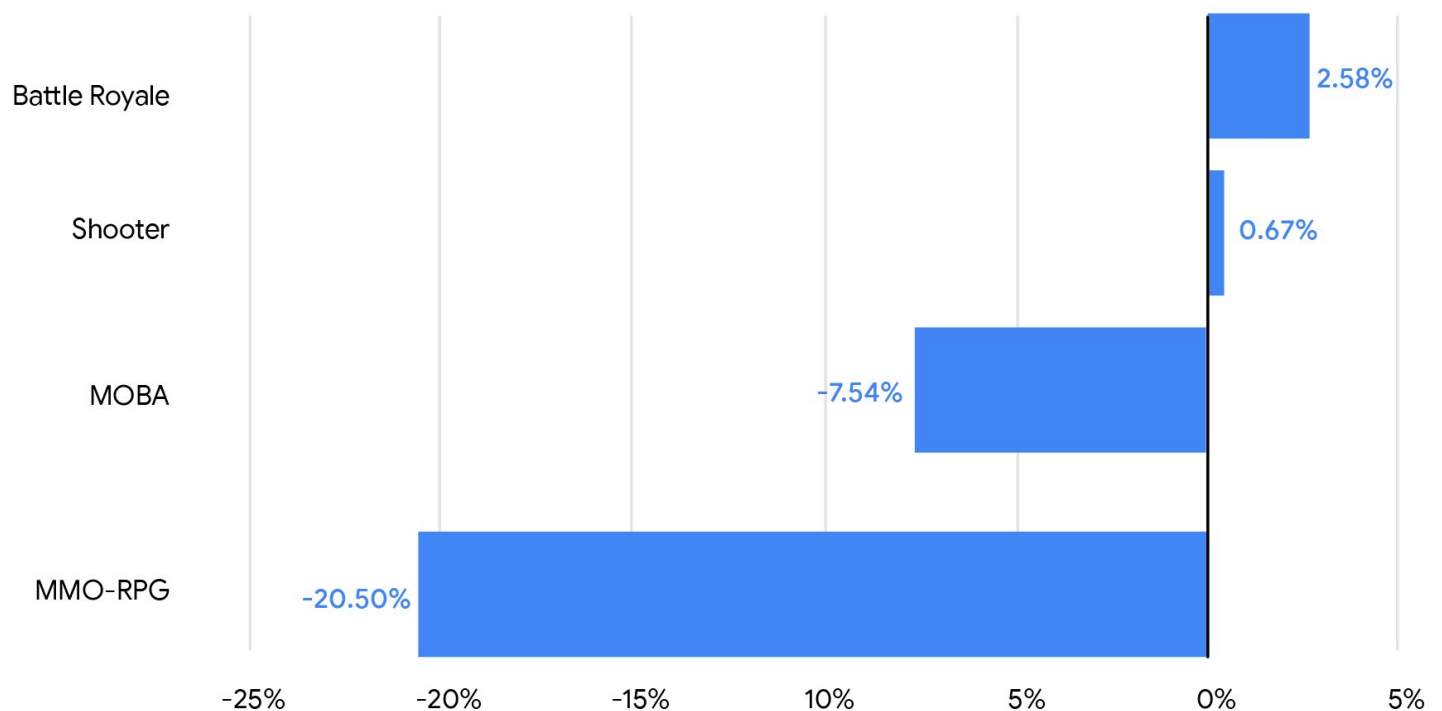


KPI Trends: Battle Royale

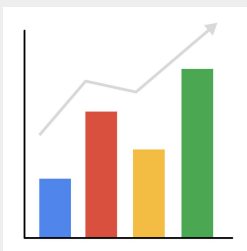
► KPI trends: Battle Royale

To give context to these retention improvements, note that the battle royale genre outpaced the growth of its shooter parent genre by nearly 3X. Other multiplayer genres, like the MOBA genre, saw a D2 decrease of 7.54 percent or more.

D2 retention growth from Q1'20 to Q2'21 across genres

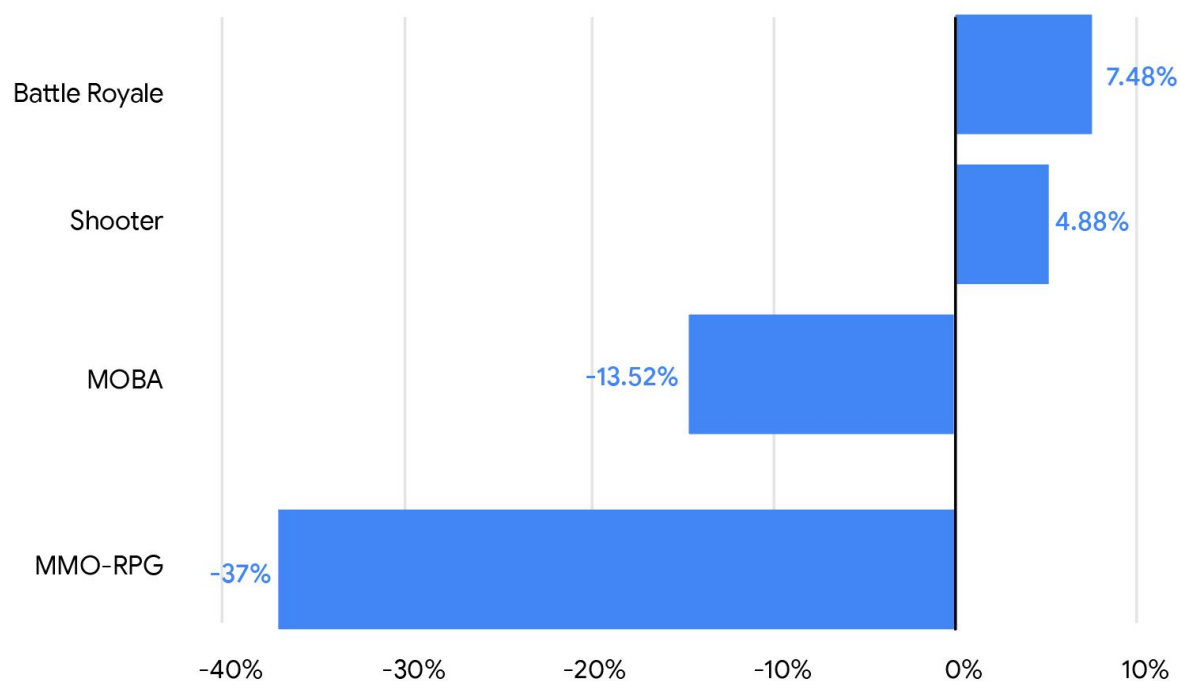


KPI Trends: Battle Royale



Battle royale games have also seen a steady improvement in D28, signaling improving opportunities for long-term engagement for players of these games.

D28 retention growth from Q1'19 to Q1'20 across genres

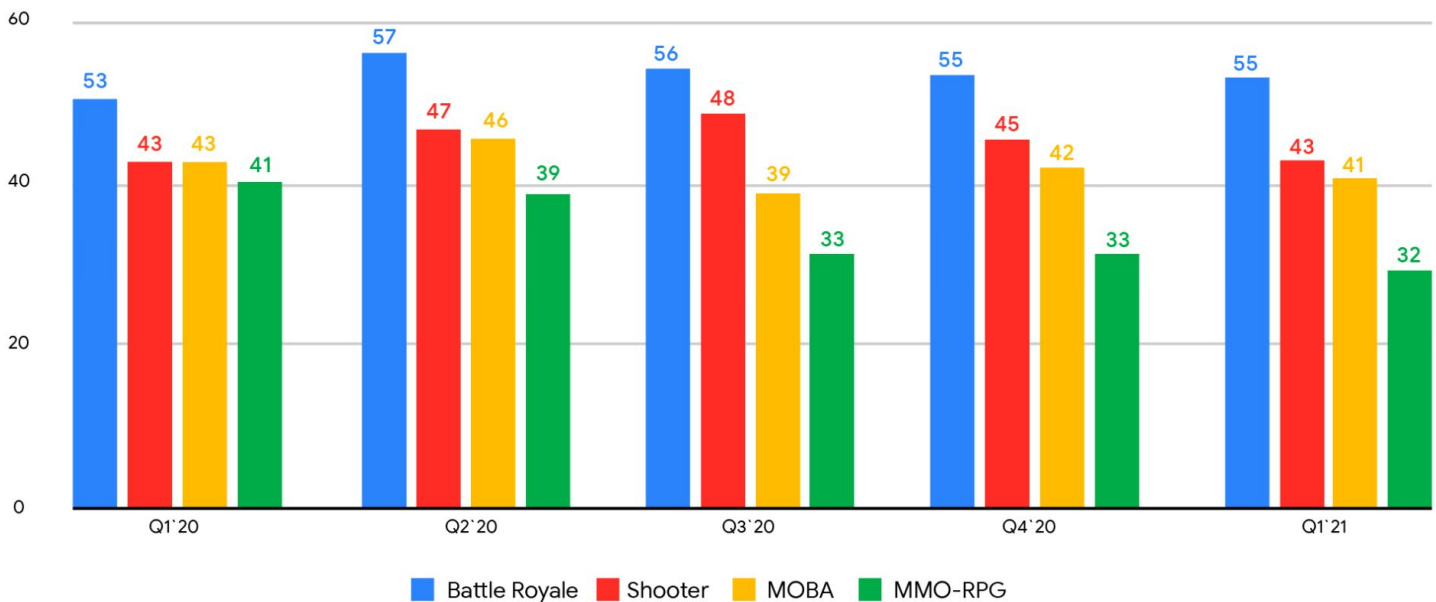


Battle royale's 7.48 percent growth exceeds the growth of the shooter parent genre. It also significantly improves over MOBA and MMO-RPG, which have seen a decline in D28 retention.

KPI Trends: Battle Royale

Battle royale’s retention rates are some of the best-in-class across all genres on Google Play and have continued to improve. It’s helpful to understand some of the key drivers to retention improvements, and it starts with the first-time user experience.

New user day one minutes played from Q1'20 to Q1'21 across genres



Over the past year battle royale games have improved the number of minutes played on install day from 53 to 55 minutes, a 4 percent increase. This is important because there is a strong correlation between minutes played on the first day to D2 retention.

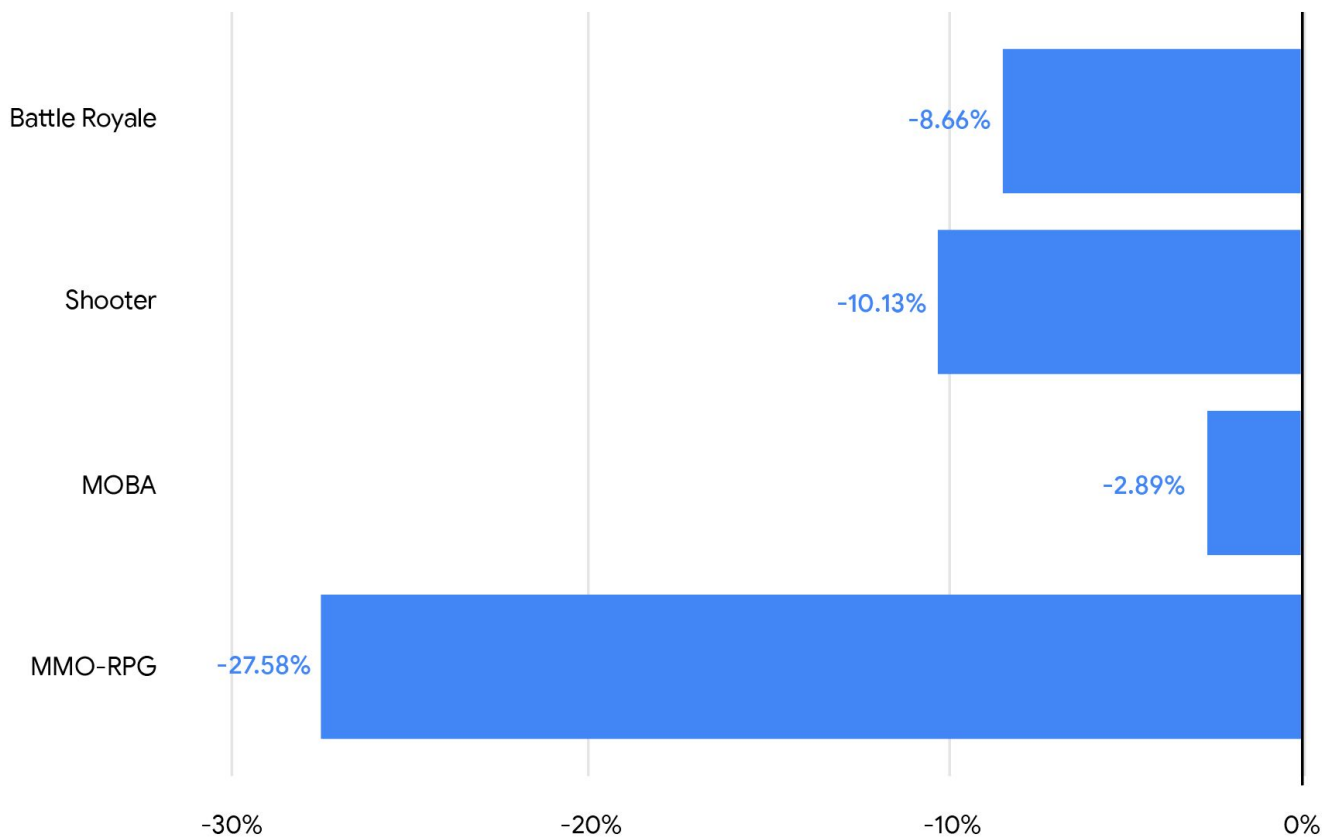
More minutes played on install day may be the result of a better onboarding experience or more qualified users coming into the games. However, optimizing and making incremental improvements to the top-of-the-funnel experience can greatly affect long-term effectiveness.

KPI Trends: Battle Royale

However, on D28, users are playing 9 percent fewer minutes per day despite battle royale's D28 retention seeing an 8 percent improvement.



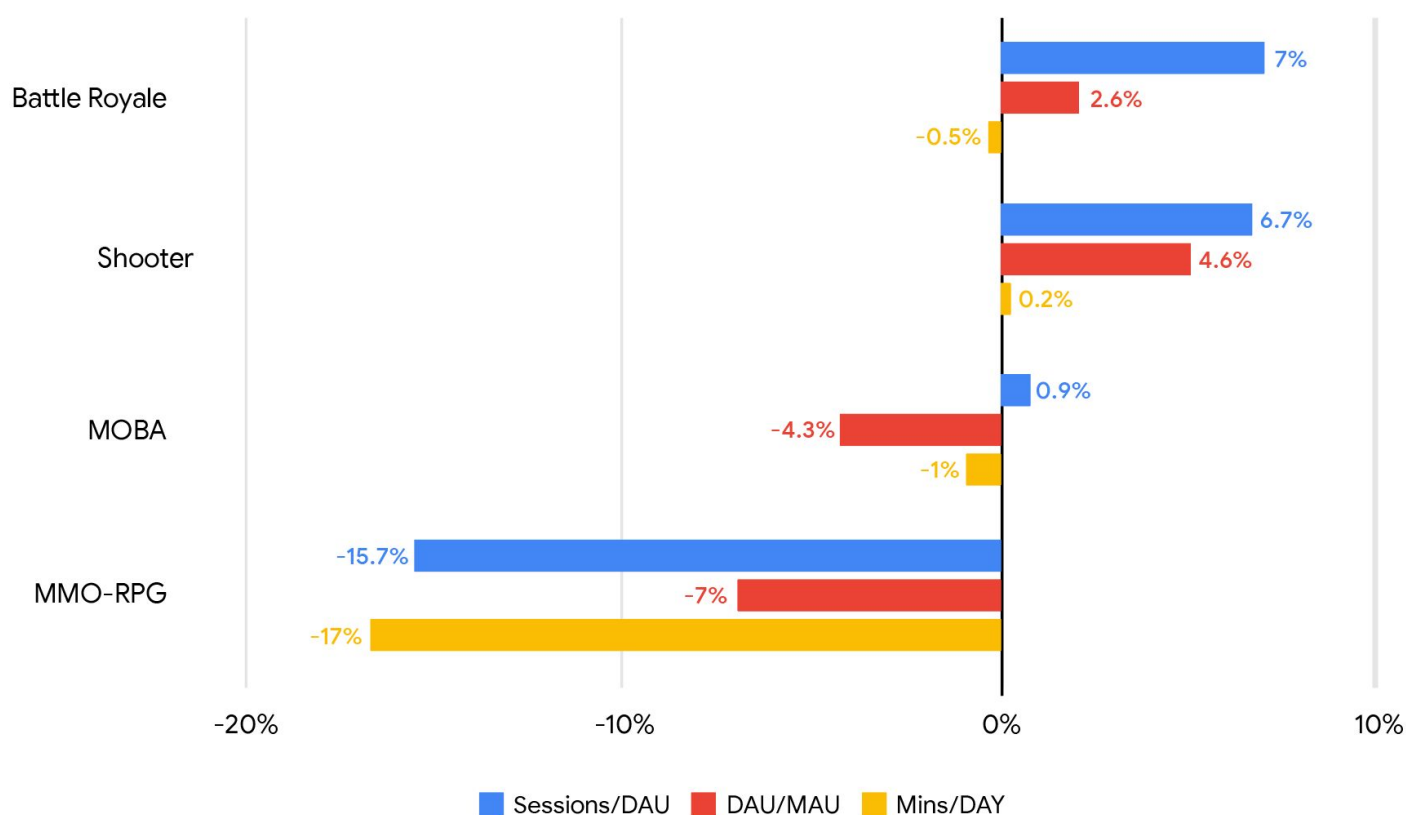
D28 new users minutes played growth from Q1'20 to Q2'21 across genres



If we dig more into their behaviors, we see people are playing more often, but playing less.

► KPI trends: Battle Royale

Engagement KPI growth from Q1'20 to Q2'21 across genres



While they are playing slightly fewer minutes per day on average, battle royale players are logging in 7 percent more often per day and roughly one day (3 percent) more per month. Overall, battle royale games have significantly improved engagement in 2020. But engagement means more than minutes played; it's also about the core actions the players are making and whether it is fulfilling their game motivations.

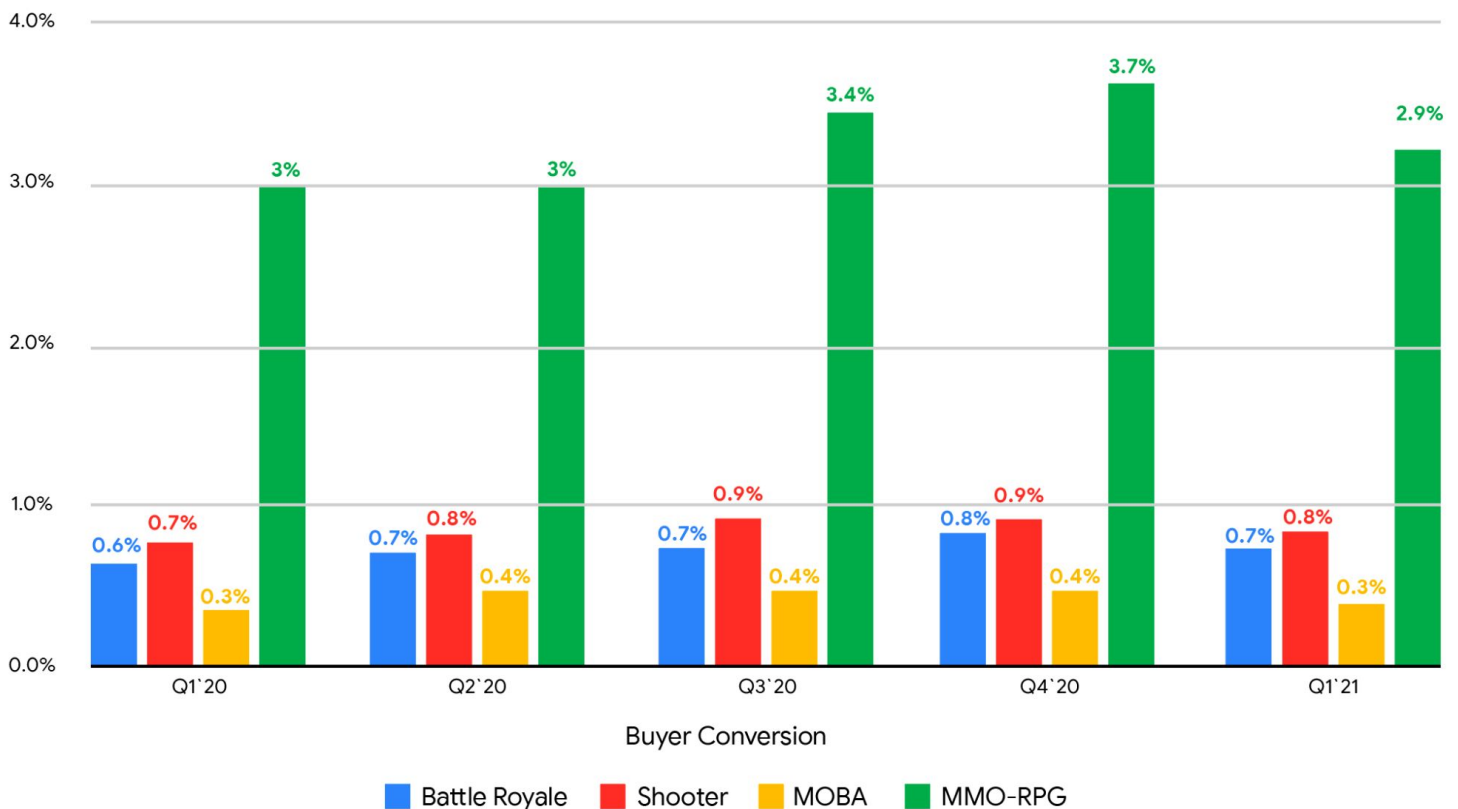
Battle royale games are often difficult to win, and this is a key motivator for players. Therefore, certain game systems or features, such as a weekly checklist, that work adjacent to core gameplay and drive players to come back and play again are key to improving sessions and stickiness.

Monetization: Battle Royale

► Monetization: Battle Royale

Battle royale games have high player counts but low buyer conversion and secondary monetization metrics. The reason is that monetization is not a requirement for players to succeed in battle royale.

Average buyer conversion trends from Q1'19 to Q1'20 across genres

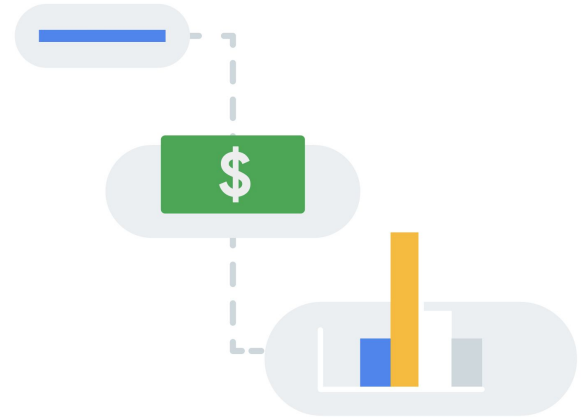


As buyer conversion is low, there was room for opportunity and improvement for battle royale developers. We saw major improvements to monetization in 2020 as a result of increased engagement and optimization.

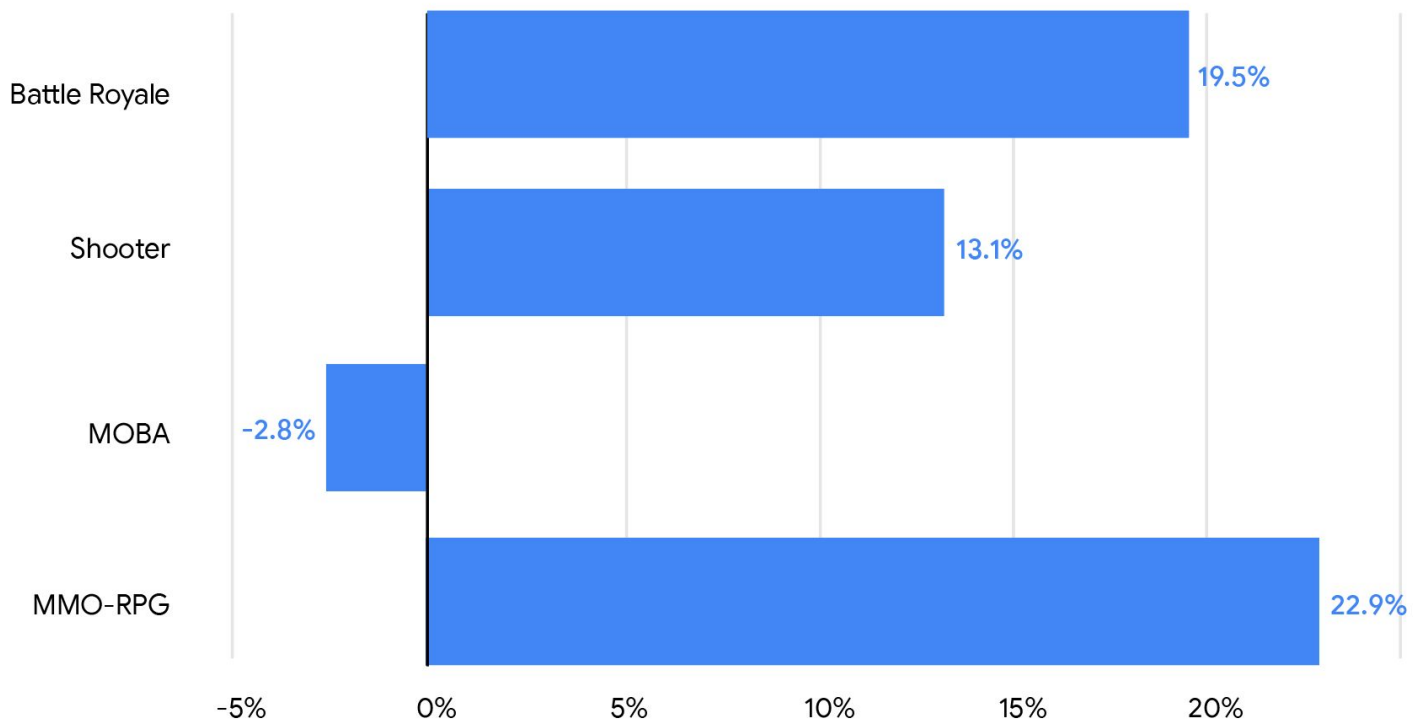
Monetization: Battle Royale

Battle royale saw a 20 percent improvement in buyer conversion, which is significantly higher than the shooter parent genre. Additionally, MOBA users spent 3 percent less while MMO-RPG players, although a much smaller niche playerbase, spent 23 percent more.

Battle royale buyer conversion, like engagement, saw strong improvements in the early user experience as we saw buyer conversion growth from the first week of install.

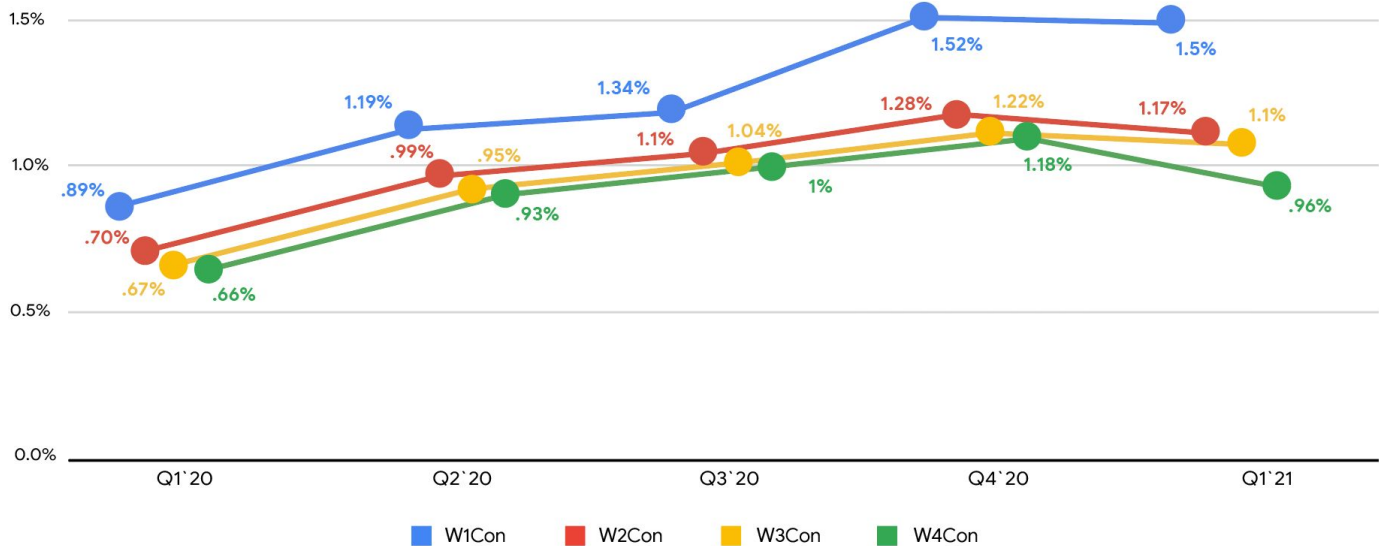


Buyer conversion growth from Q1'20 to Q2'21 across genres



Monetization: Battle Royale

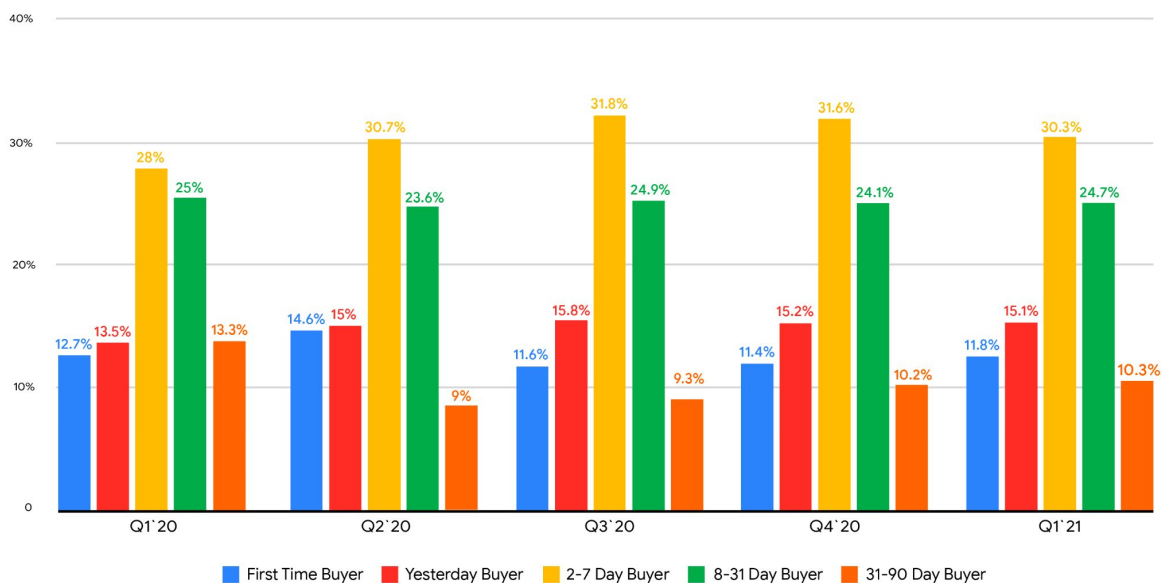
Weekly conversion since install from Q1'20 to Q1'21 for battle royale



In Q1'20, Week 1 buyer conversion for new users was 0.9 percent, and by Q1'21 the percentage of week 1 buyers has improved to 1.5 percent, a 70 percent increase. This trend carries on for Week 2 through Week 4, with 45 percent more users making purchases nearly a month after install.

The overall effectiveness of new buyer conversion across all users is illustrated by the change in buyer distributions. Most notably, on average, 15 percent of all buyers made a purchase the day before, a 13 percent increase. Additionally, more users are making purchases two to seven days after their last purchase year over year.

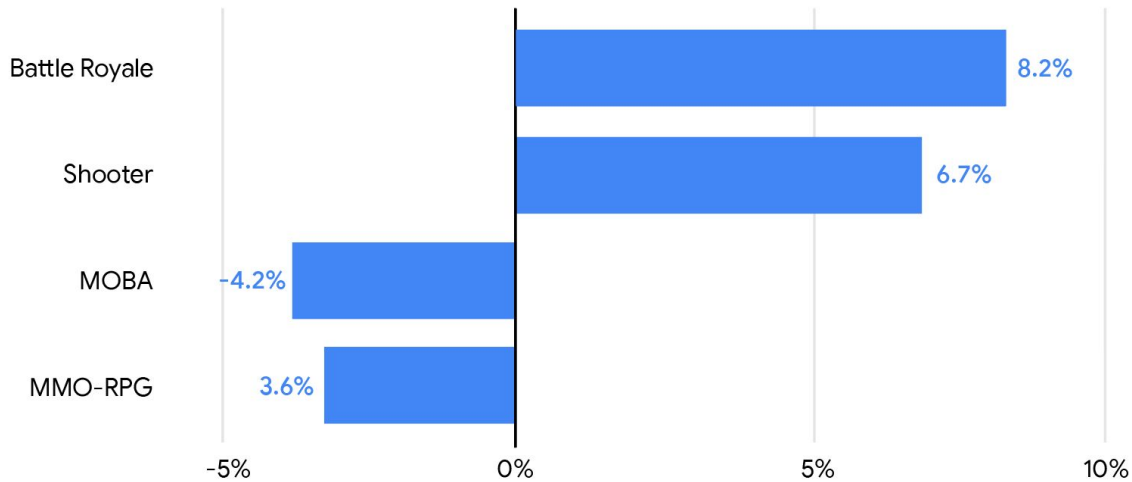
Buyer Distribution Q1'20 to Q2'21 for battle royale



Monetization: Battle Royale

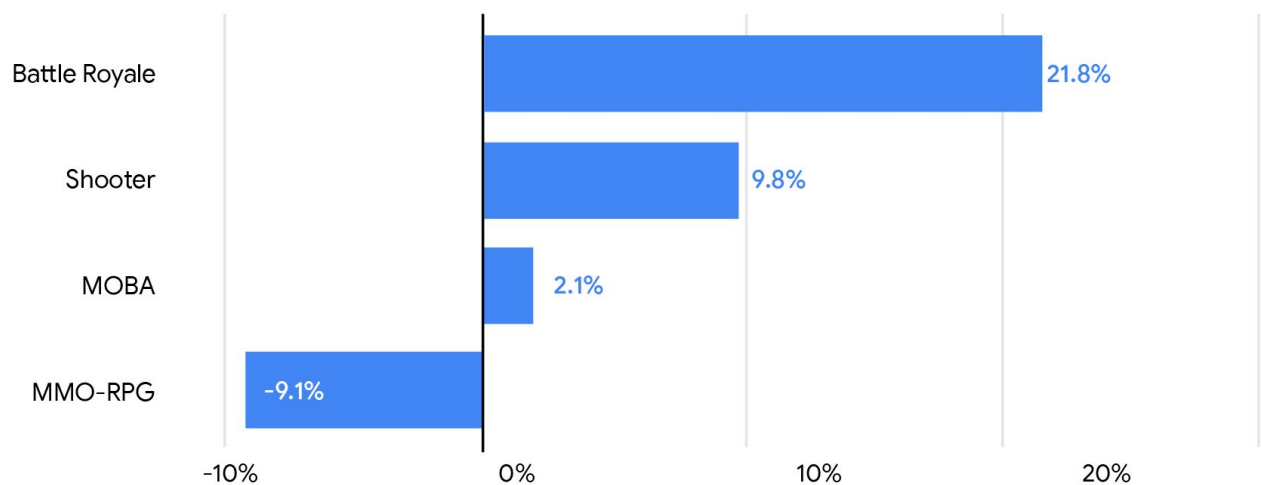
Additionally, more users are making purchases 2 to 7 days after their last purchase.

Buyer Distribution growth (2-7 Day) from Q1'20 to Q2'21 across genres



If you use 2-7 day buyers as a soft proxy for weekly purchase, 8 percent more users are making weekly purchases where you see fewer users buying 8 to 31 days after. This is because people are shifting from monthly purchase habits to weekly, and along with the growth of users and engagement, have catapulted revenue growth for battle royale games.

ARPDau growth from Q1'20 to Q2'21 across genres

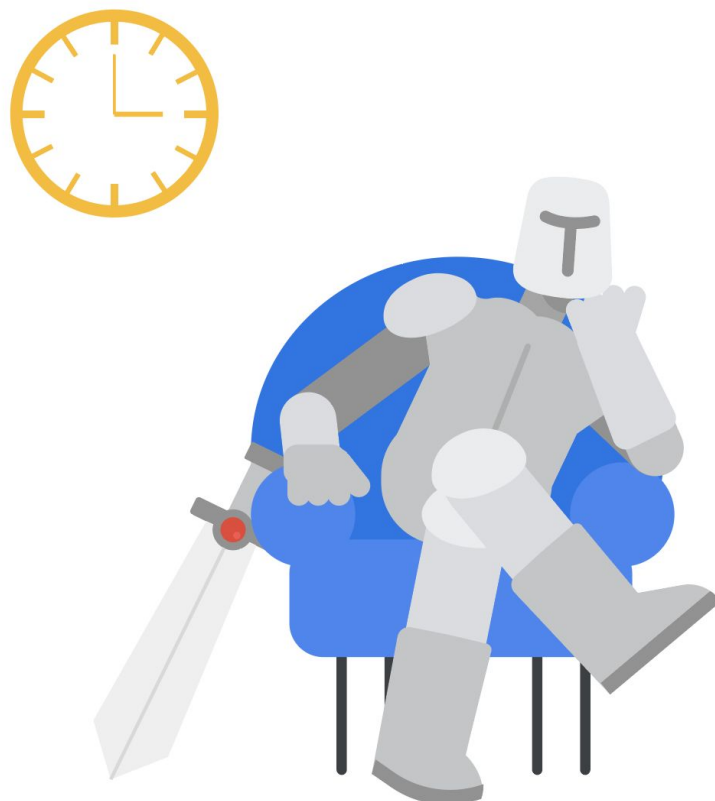


The ARPDau (Average Revenue Per Daily Active User) has improved by 22 percent due to more users making purchases more frequently. While the battle royale genre monetization metrics remain low (on average \$5 Average Revenue Per Paying User and \$.04 ARPDau), these changes were part of what made this a multibillion-dollar genre on mobile in just a few years. The genre's strategy of focusing on broad monetization at low price points has proven very successful.

► Insights and Tips: Engagement and Retention

Developers improved overall retention through D28, but minutes played on D28 for active users was 8 percent lower than the year before. A potential driver for this is developers optimizing the core loop experience to ensure that players are getting what they are looking for in the time spent in-game. These optimizations can include faster first-time boot and overall onboarding performance, subsequent loading and matchmaking times, and a clear daily core loop that respects the users' time.

How quickly a player can get in and out of the action is especially important, as dying and restarting is a large part of playing battle royale games. Consider when and where your users may be playing your game. Do you have something for someone who only has 5 minutes, 10 minutes, or more? Multiple game modes can help with filling those gaps. Also, create challenges and events that promote playing these game modes so that users get equal progression for playing each mode.



► Tips for optimizing your battle royale game's onboarding:

01 Product performance is key.

Top games can go from cold boot to in-game action within 30 seconds on high-end devices. This allows people to context switch quickly between apps or get into a match quickly if there is a time constraint. Better product performance has shown to correlate to new user retention rates. One way battle royale games quickly get people into a match is by loading them into a small map or asset while matching making.

02 Respect the user's time.

Ensure that players are getting good progress out of their time spent, regardless of outcome.

03 Multiple game modes.

Top games have multiple game modes to fill in the time. Whether it's a quick deathmatch game mode or squad-based objectives, these game modes use existing assets.

04 Keep the game fun and fair.

Battle royale games are fun, exciting, and sometimes punitive. Ensure that players are getting good progress out of their time spent, no matter the outcome.

► Insights and Tips: Monetization

Monetization in battle royale games must be **precise and deliberate**, as the overall monetization KPIs are much lower than other mid-core genres, such as MMO-RPG. Developers must understand, create, and support a realistic DAU to revenue ratio to achieve the 0.7 percent average buyer conversion. In other words, prioritize optimizing engagement to support top-of-funnel user acquisition before shifting your attention to revenue. In fact, some of the top games in the genre launched without monetization and built revenue after core game engagement KPIs stabilized. We have seen over the past few years that many developers in competitive multiplayer games have used **engagement focused monetization**.

Engagement focused monetization builds systems and features to reward time spent playing the game. This is imperative as battle royale games are difficult to win, and a player needs positive reinforcement loops that aren't only tied to winning games. These positive reinforcement loops can be as simple as layering RPG progression mechanics against a player profile. But the loops need to be strong enough to balance the negative reinforcement loop of losing to prevent churn. A player is unlikely to convert on a purchase if they feel that they are not being rewarded for playing. A perfect example of this system is the battle pass, which has taken off over the past few years.

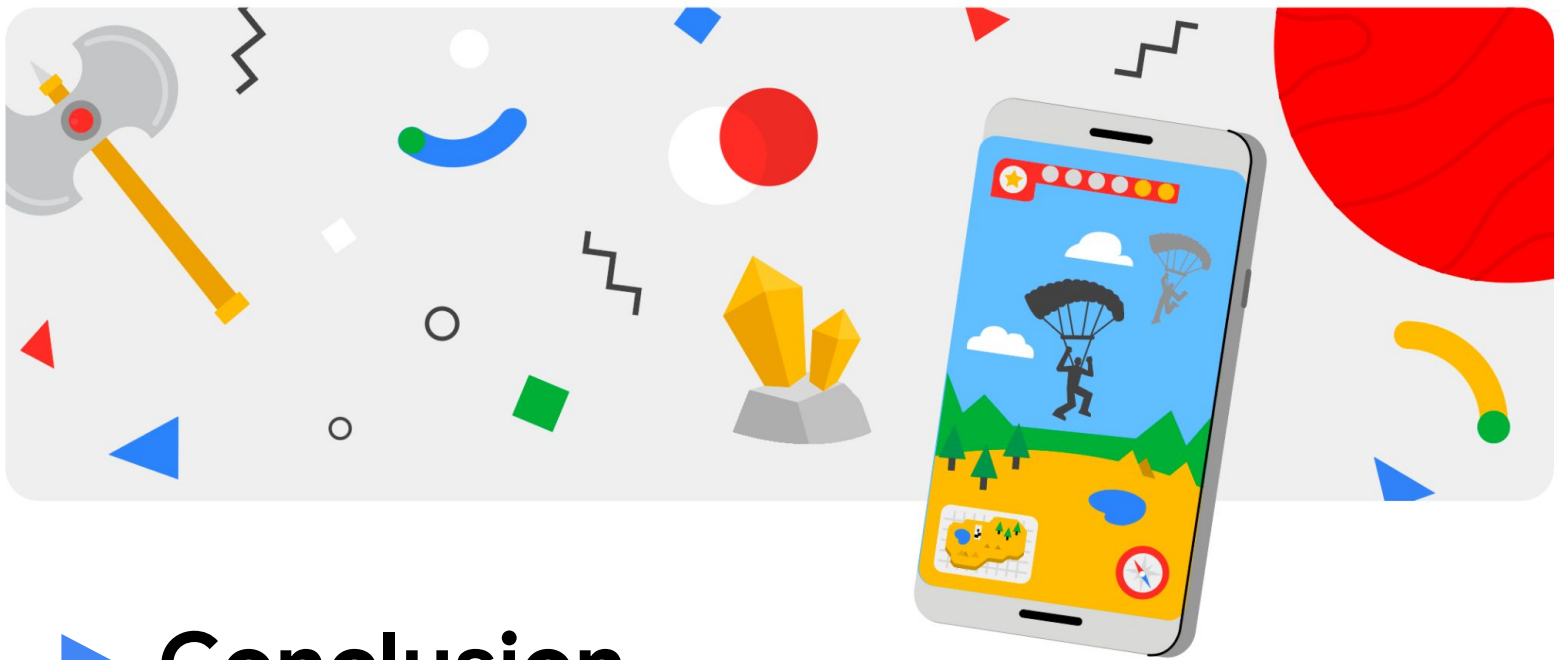


Another example of a monetization-driven engagement system occurs during onboarding, when some games provide players with an option for one-time-only progression events. Priced specifically to convert new paying users, these features can give players premium currency rewards that, if completed, provide 300 percent or more coins for their money. Players who want to min/max, or get the most out of, their spend will notice that this event, which usually takes only a day or two to complete, is an easy entry point to spend in the game. This approach takes the place of a typical free “premium currency” grant and introduces the player to the game’s store ecosystem. These systems aim to get players to spend and understand the benefits of spending at a low entry point with a huge benefit to engagement and retention. In 2020, we saw week one conversion improve by over 70 percent, and we hypothesize that this behavior was driven by early lifecycle, engagement-driven monetization systems.

Paying users are much more likely to keep playing; in fact, battle royale paying users are retained about 30 percent more than non-paying users day over day, and they are more likely to play more. Higher engagement leads to more monetization opportunities.

Tips for optimizing your battle royale game's monetization strategy:

- ▶ **Prioritize week one buyer conversion.** Week one buyer conversion can be encouraged through starter packs, first-time buyer promotions, and other proven monetization mechanics. Developers that focused on week one conversion saw a 70 percent improvement year over year. Low-cost, engagement-based events can create low-friction conversion points, as a player will get rewarded for playing the game anyway. Week one buyer conversion opportunities should concentrate on providing new players with significant value, which will lead to a surplus of premium currency for a user to spend in game.
- ▶ **Build layers to first-time buyer conversion.** Create layers of low-priced systems that lead from one system to the next. For example, after a player becomes a first-time buyer, reward them with enough premium currency to purchase a battle pass, which is another high-value ratio feature. Once a player purchases a battle pass, they are committed to the game's ecosystem for at least the rest of the season. Another example is weekly or monthly subscription cards that provide continued premium currency drips and other engagement-based rewards. These are systems that players may prefer to purchase for premium currency rather than using IAP transaction, at least in the early stages of the user journey.
- ▶ **Consider how your economy could scale.** If a player has purchased a battle pass, they are committed to the ecosystem. How does your economy scale with the increased engagement? Think about how the economy can grow and support this play style rather than limit engagement.



▶ Conclusion

Conclusion: battle royale

We hope you find success acting on the insights provided in this report. We will continue to provide these genre reports to highlight exclusive Google Play data and offer detailed analyses to help grow game businesses. If there are genres you would like covered in the future, please send us your feedback using [this quick survey](#).

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