

## Halfbrick uses Firebase Predictions to boost retention by **20%**

### Introduction

Halfbrick Studios is a professional game development studio based in Brisbane, Australia. Founded in 2001, Halfbrick has developed many popular games, including *Fruit Ninja*, *Jetpack Joyride*, and *Dan the Man*.

### Challenge

When Halfbrick first learned about Firebase Predictions, they were excited about targeting users based on predicted behavior, rather than historic. Re-engagement is tough, so intervening before a user churned—based on predictions instead of ad hoc heuristics—seemed like a strong strategy.

They had been trying to create their own churn prediction models, but like many companies, didn't have the time or resources to properly devote to the problem. Even once they had a prediction model, they found it time-consuming to change the in-app experience on a user-by-user basis.

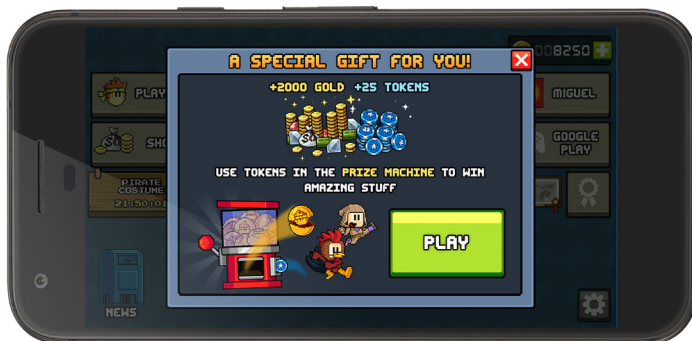
### Solution

Halfbrick already had Firebase Remote Config implemented in their game *Dan the Man*, so they decided to try Predictions there. They set up a 3-variant experiment testing whether they could boost retention by offering a pop-up with a gift of in-game currency.

Group 0 was the control and received no promotion. Users in Group 1 received the in-game gift based on Halfbrick's existing heuristic: beating level 3. Finally, users in Group 2 received the gift if they were identified by Predictions as 'will churn'. These are the results that Halfbrick saw:

	1-Day Active Users	7-Day Active Users
Group 0: No Promotion	59.52%	25.35%
Group 1: Gift After Level 3	59.07%	25.34%
Group 2: Predicted Churners	62.12%	30.24%

By serving the in-game promotion to users who were predicted to churn, Halfbrick boosted their 7-day retention for that group by 5 percentage points, which equated to a 20% boost. With the success they've seen in *Dan the Man*, Halfbrick is excited to test out Predictions in their other titles.



### Results

**20%**  
boost in 7-day active users

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*Based on the results of the experiment, we decided to roll-out the in-game promotion to our entire user base. Now, any user that Predictions identifies as 'will churn' receives a gift of 2000 gold coins and 25 gacha tokens. We can't wait to test Predictions in our other titles!*

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