Challenge:
Recommend a course of action regarding the mystery spin experiment described below. Should we implement Variant 1, Variant 2, revert to the control, or wait longer?

Please provide a reproducible analysis that exposes your process and justifies your recommendation. There may not be a definitive answer. We're interested in your thought process and analytical approach.

We recommend spending 2-4 hours on this project.

Experiment Design

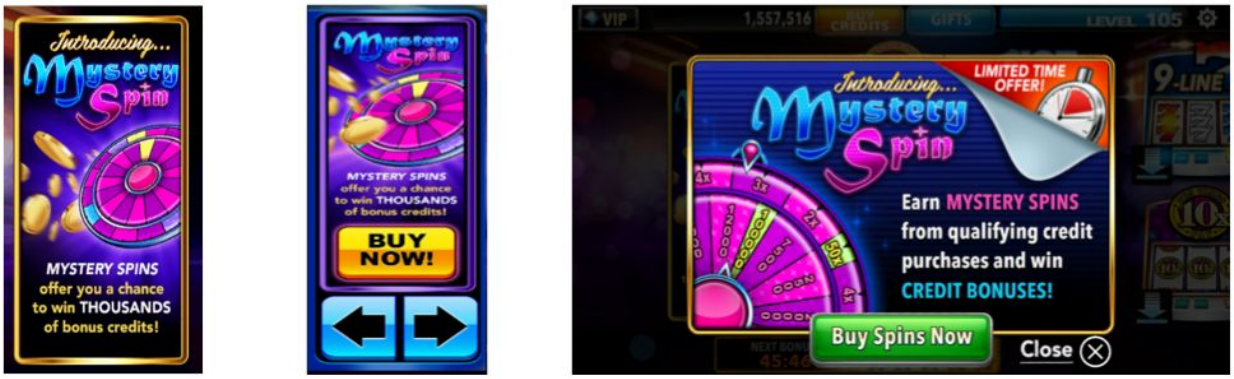
Mystery Spin is the name for a mini-game that is granted on purchases of $14.99 or higher in Viva Slots. Players receive N number of spins, where N is determined by which price point they purchase. The user earns an amount of credits with each spin that is random but is weighted.

The Mystery Spin was marketed on the buy page as an additional perk of higher price points. It was also marketed in the lobby via the Carousel and for users who were not in the Carousel experiment, a special fixed banner. Interacting with the Carousel or the Banner opened a special dialog, which would then take users to the Buy Page.

The variants tested different balances for the amount of credits distributed by the Mystery Spin. Variant 1 was balanced to give out 75% of the price point. Variant 2 was balanced to give out 150% of the price point. A third variant with even higher balance was developed but was untested, due to an accident.

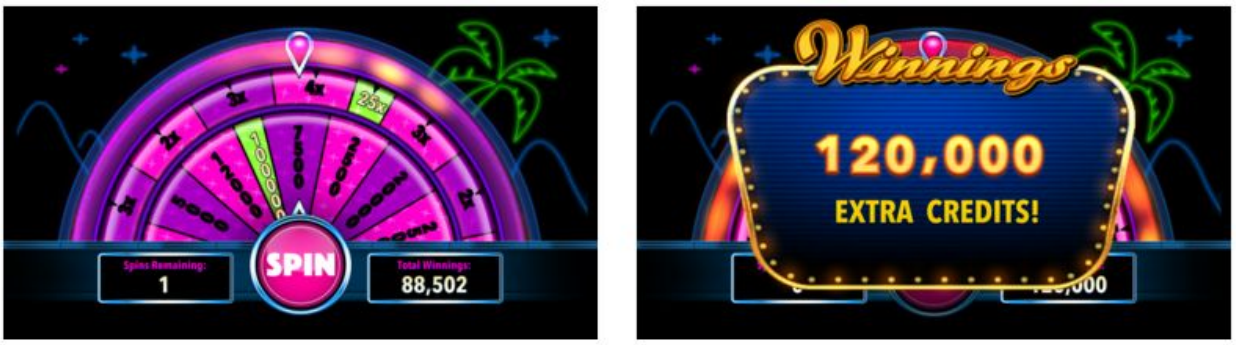
The feature initially went out with 1.13 and was briefly on for players prematurely, due to an accident. Revisions were made to the feature and it was later released again with 1.15.

UX



Banner, Carousel, and Dialog Feature Marketing

Buy Page (in Mystery Spin Variant)



Post-Purchase Flow

Experiment Logistics

Experiment Name	Experiment_purchase_sweetener
Type of Experiment	A/B
Variants	0: Control, no Mystery Spins 1: 75% tuning of Mystery Spins 2: 150% tuning of Mystery Spins
Starting Version	First shipped in 1.13.0. Experiment really started with 1.15.0.
Starting Date	Android: 1/13/2016 Amazon: 1/13/2016 iOS: 1/19/2016 Web: N/A
Ending Version	Still in code (as of 1.16.5 on 2/2)
Ending Date	Android: N/A Amazon: N/A iOS: N/A Web: N/A

Data Definitions

Each row represents a user.
variant: Identifies which experiment variant the user was in.
entry_date: When the user entered the experiment
u_custom_platform: Which platform the user is on (iOS, Android, Amazon).
version_name: Which game version the user is on.
install_date: When the user was first seen.
first_pay_date: When the user first paid.
playertype: Users are bucketed. Into three groups. New, Existing-Payer, Existing-Non Payer
revenue: Revenue from user during the experiment. (entry_date to 1/31/16)
bc: Binary variable that indicates whether or not the user made a purchase during the experiment.
txns: Number of transactions by the user during the experiment.
heartbeats: A heartbeat is a stat that measures playtime. 1 heartbeat is roughly 1 minute of playtime. This stat is # of heartbeats recorded during the experiment.
spins: # of times the user spun [any] slot machine during the experiment.
buypageviews: # of times the user viewed the buy page during the experiment.

d1: 1 if the player came back one day after entering the experiment. 0 if not
d7: 1 if the player came back seven days after entering the experiment. 0 if not
d14: 1 if the player came back fourteen days after entering the experiment. 0 if not
revenue_before: Revenue from user in fourteen days prior to the entry_date.