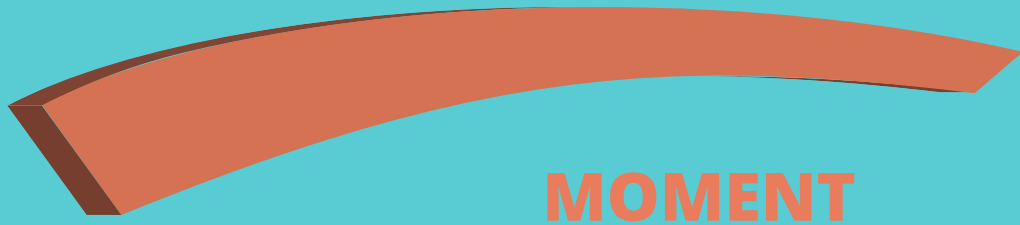


**STEP-BY-STEP GUIDE
TO FINDING YOUR APP'S**

AHA!



MOMENT

By Kendrick Wang and Alicia Shiu

AHA! MOMENT OF NOTABLE COMPANIES



Slack

2000 messages sent between a team

- Stewart Butterfield, Co-founder



Dropbox

One file in one Dropbox folder on one device

- ChenLi Wang, Growth Team



Zynga

User returns 1 day after signing up

- Nabeel Hyatt, Former GM



Twitter

X users followed, Y% followed back

- Josh Elman, Former Growth Lead



Facebook

User connects with 10 friends within 7 days

- Chamath Palihapitiya Former Growth Lead



LinkedIn

X connections in Y days

- Elliot Schmukler, Growth Team

AHA! MOMENT

AN ACTION OR SET OF ACTIONS THAT SEPARATE USERS IN YOUR PRODUCT WHO RETAIN, VERSUS THOSE WHO DON'T.

More so than acquisition, churn is the best indicator of steady, sustainable growth. That's why the Aha! moment has been such a key rally point for the most well known growth teams.

But what does your product's aha! moment look like? What key actions are you going to drive users toward?

That's exactly what we're going to figure out, walking you through step-by-step to help you figure out the Aha! moment in your app.

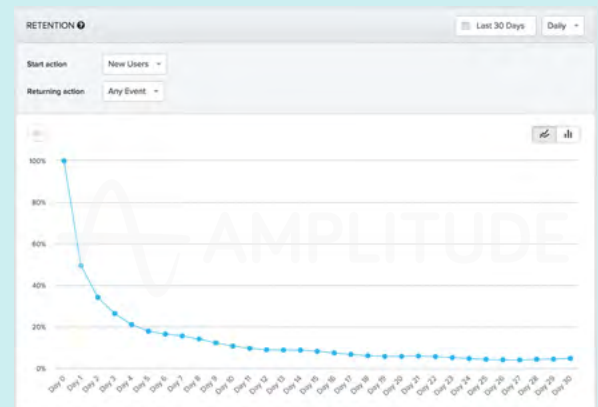
STEP 1

FIND YOUR RETENTION BASELINE WITH ACQUISITION COHORTS

- Segment groups of users by acquisition date, and track the retention rates over 10-30 days. This will be your baseline.
- Create a retention curve for easy interpretation.

RETENTION ⓘ ✕ Deselect All 🔍 Search Export CSV

SEGMENT	USERS	DAY 0	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7	DAY 8	DAY 9	DAY 10
▼ All users	322,902	100.0%	49.8%	34.7%	26.7%	21.3%	18.0%	16.6%	15.8%	14.3%	12.5%	10.9%
Nov 03	13,462	100.0%	57.2%	39.9%	*34.3%							
Nov 02	9,470	100.0%	67.7%	42.5%	31.6%	*27.9%						
Nov 01	6,462	100.0%	42.7%	41.6%	33.2%	25.6%	*23.3%					
Oct 31	7,495	100.0%	28.8%	29.4%	31.4%	24.2%	19.4%	*18.0%				
Oct 30	12,466	100.0%	33.1%	20.4%	22.5%	25.1%	20.4%	16.7%	*16.0%			
Oct 29	11,478	100.0%	55.1%	24.5%	16.2%	19.8%	23.4%	19.9%	16.5%	*15.8%		
Oct 28	12,467	100.0%	53.6%	41.8%	21.0%	14.0%	18.4%	21.9%	18.7%	15.7%	*15.4%	
Oct 27	13,473	100.0%	57.9%	39.6%	33.6%	16.4%	11.9%	15.8%	19.9%	16.6%	13.9%	*14.1%
Oct 26	9,465	100.0%	67.8%	43.0%	32.3%	28.4%	13.6%	10.0%	13.7%	18.1%	15.6%	13.0%



STEP 2

CREATE RETENTION HYPOTHESES

- List out all of the actions a new user takes after they first sign up for your app
 - e.g) sign in with Facebook/register, play a song, search for an artist, read info tab, favorite a song, replay a song, shuffle music, create a playlist, etc.
- Compare the actions between:
 - users who are retained and
 - users who download the app and churn

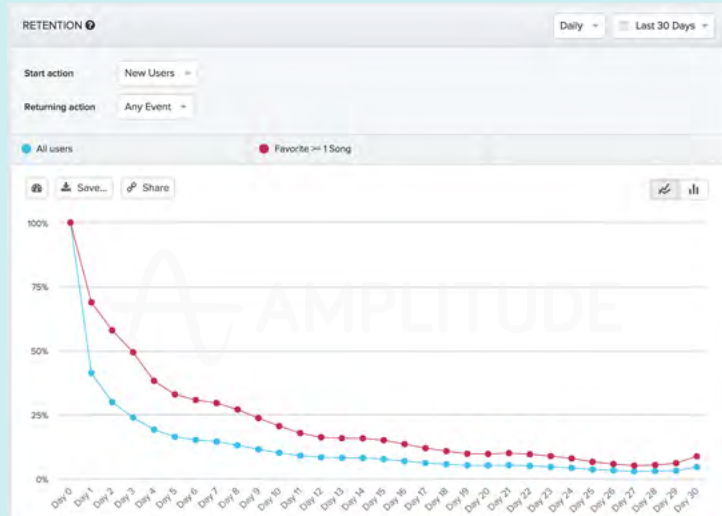
Do you notice any differences in behavior between the retained and churned users? Write them down.

- Using the list of differences, user feedback, and the input of your team, hypothesize which of the user actions would have the biggest effect on retention

STEP 3

DOES ACTION X AFFECT RETENTION?

- Using the list of actions above, create behavioral cohorts, i.e. cohort users by actions they took. For example, we can create a cohort of new users who perform the action 'Favorite a song' at least one time.
- Then, graph the retention of the behavioral cohort alongside the baseline retention curve.
- Did users who take that action have higher retention rates?



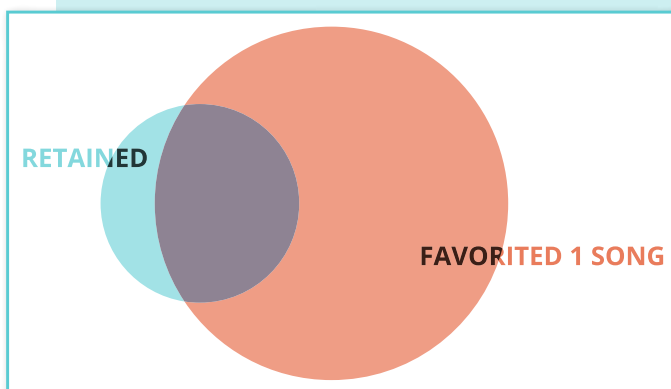
- If so (like in the figure above), we need to determine **how many times** a user needs to complete the action for optimal retention.

Tip: Keep in mind that **when** a user takes an action can be quite important as well.

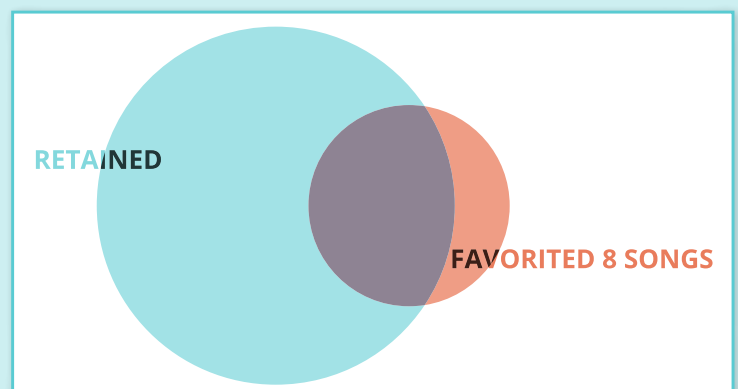
- Is it important to complete the action on their first day?
- Or is the effect still there as long as they do it in their first week? First month?

STEP 4

DETERMINING THE OPTIMAL NUMBER OF ACTIONS

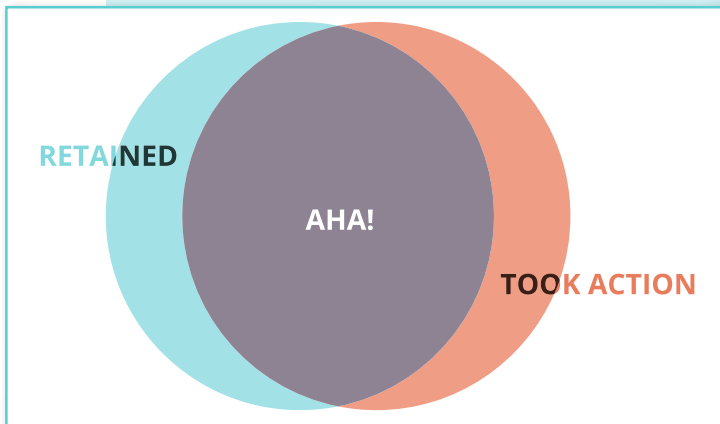


In the figure above, we can see that most users who retained favored 1 song, but most users who favored 1 song did not retain.



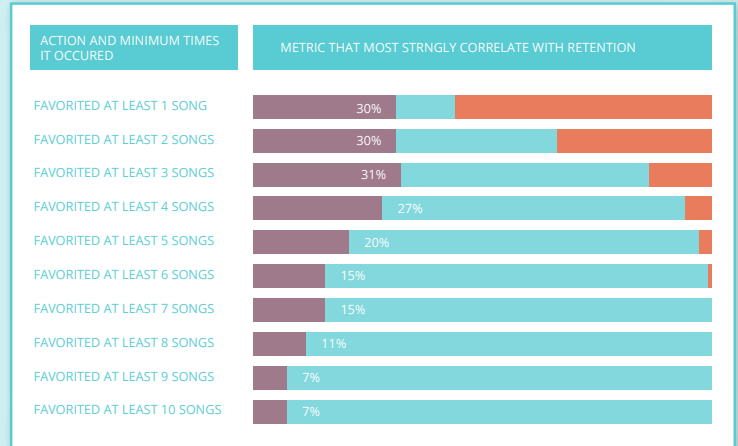
Conversely, we can see that users who favored 8 songs were very likely to retain, but most users who retained didn't favorite 8 songs.

- What we want to find instead is the sweet spot that has the most overlap:



We want to figure out the **actions taken by most people who retain.**

Chart the data comparing Users Who Retained and Favorited X Songs vs Users who retained and Didn't Favorite X Songs



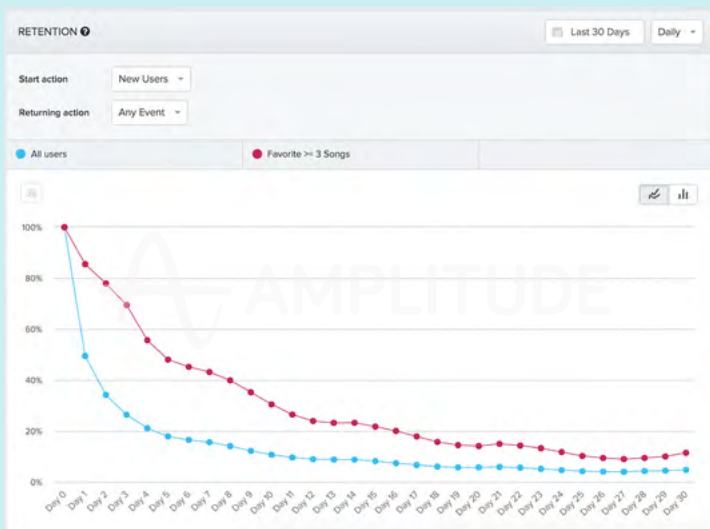
Then we find the percentage of the retained users out of the total who took an action.

We're looking for the largest overlap (purple) which indicates an Aha! moment. In this case, the largest overlap is at 3 songs.

STEP 5

ADD THE DATA TO YOUR RETENTION CURVE

- Graph the data again using the degree of the action determined above (retention rates of users who favorited 3 songs)
- Look for significant increases over the baseline retention curve.



- While 50% of all users churn within one day of using the app, only ~15% of users who favorite 3 or more songs churn out after day 1. There could be something about favoriting songs that keeps people around.
- From even this simple analysis you can see that getting people to favorite songs early in their experience allows them to encounter the core value of the app, meaning that they are more likely to continue as users

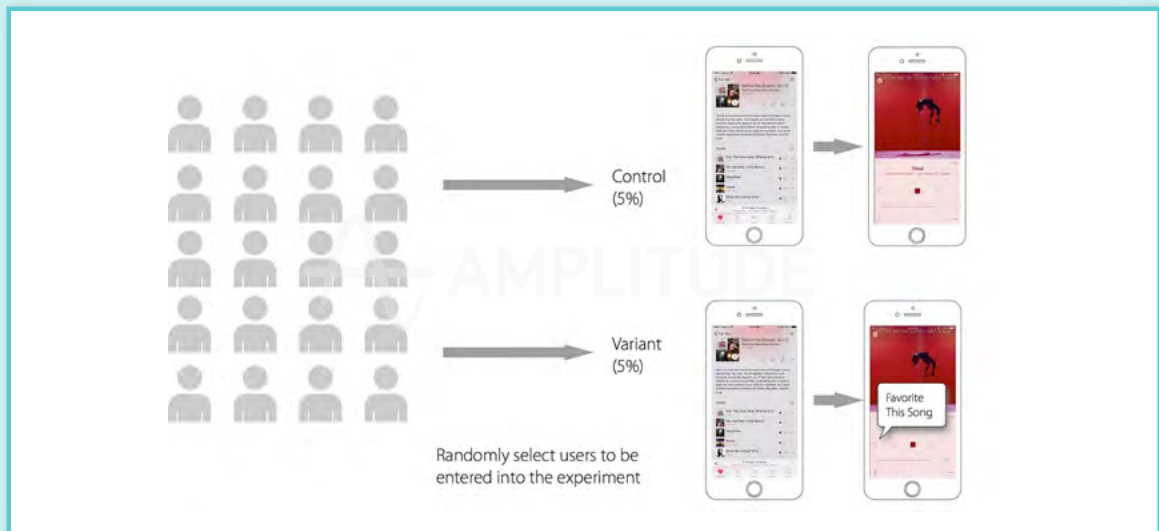
STEP 6

DETERMINE CAUSATION THROUGH EXPERIMENTATION

- Create an A/B experiment where the variant drives users toward the action(s) for your Aha! moment.
- Track metrics related to retention such as:

Cohort retention curves (normal retention vs those in variant group)

- Run a test to determine if these actions improve retention



RESULTS:

Graph the retention of the Variant's behavioral cohort v.s. the Control's behavioral cohort



If there is an increase or decrease you can start to draw causation between your Aha! moment and retention.

If there is a positive increase, you can begin making changes to drive new users toward your Aha! moment.

WHAT TO DO NEXT?

Send me a message at kendrick@apptimize.com and let me know what you think of this guide

To learn more about behavioral cohorts and user analytics, send alicia@amplitude.com a note.

See what we're up to at Apptimize.com and Amplitude.com



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