



Unlocking successful retention: mindset and methods

A developer & expert perspective

In partnership with The Behavioural Architects

November 2020

About this report

A photograph of two men, one in a plaid shirt and one in a blue sweatshirt, looking at a smartphone together. They are outdoors, possibly near a body of water, with a bright, hazy background.

Google Play partnered with The Behavioural Architects to develop a set of best practices around retaining users and reducing churn in subscription apps, based on developer experiences.

The Behavioural Architects interviewed 5 retention experts and 11 subscription app developers from various categories, covering a range of teams including Product managers, Growth teams, CRM teams, and Data & Analytics teams.

This report explores challenges and opportunities around:

- Defining and measuring retention
- Developing a successful retention strategy over time
- Reducing voluntary churn

Developer experts:



Industry experts:



Nir Eyal is a former Lecturer at Stanford and bestselling author of [Hooked](#) and [Indistractable](#).



Peggy Anne Salz is the Chief Analyst and Content Strategist at MobileGroove, as well as a mobile marketing influencer.



Andy Carvell is a Partner at Phiture Mobile Growth Consultancy and a speaker at numerous growth summits.



Sunil Thomas is the Co-Founder and CEO at Clevertap, a leading analytics and engagement platform.



Almitra Karnik is the Head of Marketing at Clevertap and a regular contributor to Forbes.

There is agreement across the industry that retention is critical for long-term app success...

Industry experts across the board agree on the growing importance of a successful retention strategy.

As user acquisition becomes expensive and conversion strategies already highly refined, there is a shift in focus towards stronger engagement with existing users.

It's becoming even more important in the current climate

The need to understand what keeps users over time has grown even more in the context of Covid-19, new user behaviors, economic slowdown and shrinking budgets.



Many businesses know their growth strategy but not their engagement strategy. We call these businesses “leaky buckets”. People don’t appreciate that they can always buy growth, but you can’t buy engagement, it has to be built into the product.

Unless you have a crappy product, it’s much more cost effective to spend resources on keeping existing customers than finding new ones. Finding more customers and users is pointless if you don’t first nail how you will keep them coming back once they sign up. ”

[Nir Eyal](#), author of [Hooked](#) and [Indistractable](#)



Covid-19 has brought everyone’s attention to customer retention. App owners have acquired users and the new normal is making user engagement a clear focus. Retaining your existing users is critical for growth today. ”

[Sunil Thomas](#), CEO, Clevertap

Still many developers struggle to create successful retention strategies

Creating a user acquisition strategy is comparatively easy, with a clear budgetary requirement, easy to measure KPIs and hundreds of industry best practices or case studies to look up.

It can be more complex to achieve retention goals compared to optimizing at the top of the funnel, and many developers find it hard to take even the first steps towards making retention a higher priority.



“

Acquisition is relatively simple, 80% of your budget goes to your favourite advertising partner, and 20% go into other tools for attribution and measurement. On the other hand, the retention space is actually a mess. ”

Sunil Thomas, CEO, Clevertap

To successfully unlock retention, a new retention mindset needs to be embraced.

This involves shifting your thinking about retention in 3 main areas:

Only looking at retention at fixed points in time



Thinking about retention at every user interaction

Relying on industry default metrics



Designing your own metrics for actionability

Tasking one team with retention



Whole organization working towards a retention goal

3 mindset shifts for developers to unlock retention

1

Thinking about retention at every user interaction

It might be easy to just think about retention at fixed points of time, e.g. when the subscription renewal period starts approaching. But retention is cumulative - it's the end-result of all user interactions.

Basically, **retention is whether your users are returning to your app within a given time frame**. Every visit to your app within that time frame is an opportunity to increase the likelihood of user retention.

You need to not only deliver what the users need in that moment, but also use that interaction to learn and build a better experience for them over time.



Retention is just saying if they were present given a time frame - but there can be a big difference in level of engagement and likelihood to continue to use the app. ”

Andy Carvell, Partner & Co-founder, Phiture

2 Designing your own metrics for actionability

The challenge is to look past simple measures and find the right combination of inputs to understand why users are returning.

This might involve looking at things like:

- X-day return to app / return to feature
- Units of content consumed / time spent consuming content during a specific period
- Daily / weekly / monthly 'productive' users (who completed X amount of actions during that period)

Eventually **retention is a blended and cumulative measure**

- the result of a number of user actions over time. Just tracking app opens won't be enough - the user needs to complete **at least one meaningful action each time.**



Retention is a lagging metric, it is an output metric, it is the sum of many many things: how well users are onboarded, how well you've managed to keep user attention, re-engaged churned users, how well you advertise. Lots of things that are under your control, marketing efforts, email, notifications and there is also stuff that is totally out of your control, including what the weather was like, users are distracted by life - all of those factors then averaged across the whole user base is your retention. ””

Andy Carvell, Partner & Co-founder, Phiture

3

Whole organization working towards a retention goal

It might seem the easiest to task the churn teams with the responsibility of improving retention.

Eventually, responsibility for retention needs to **span the organization**, across product, acquisition, growth, CRM, data & analytics and churn teams.

As a result, teams should be able to:

- Combine expertise when designing features
- Align on metrics, combining data and feedback from multiple sources and departments
- Ensure that every initiative is tested and evaluated in terms of its potential impact on retention

“

Acquisition sits in one place and retention sits somewhere else, how can you have the two apart? One team gets the users and doesn't talk to the people who talk to the users that stay, They don't talk to the people at the top of the funnel, people in the business are so siloed. ”

Peggy Anne Salz, MobileGroove

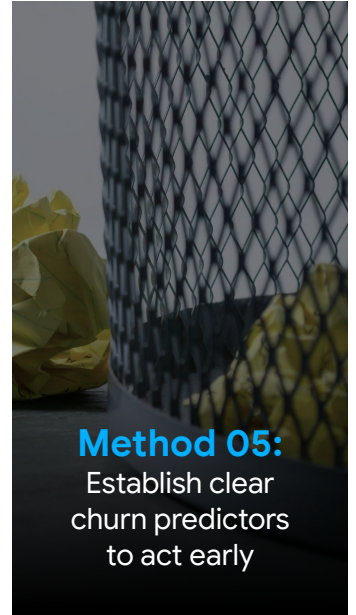
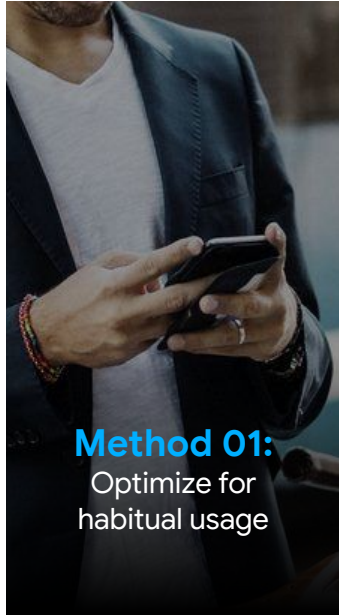
Embracing a new retention mindset is the first step towards a successful retention strategy.

The next section will help you get started with the details



methods to optimize your retention strategy, based on insights from top app developers

5 methods to optimize your app's retention strategy

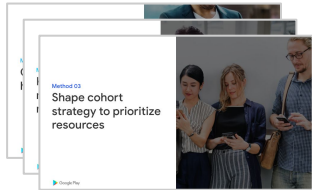


And when implementing these methods, **test**, **review**, **modify** and then **test again**

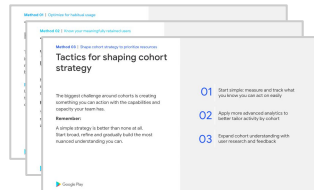
5 methods to optimize your app's retention strategy

How to use this deck

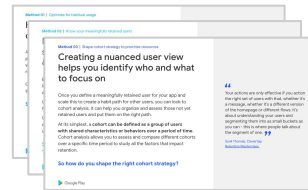
Methods



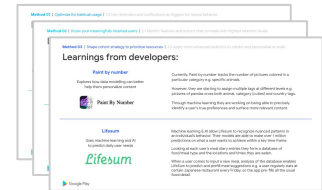
Overview



Tactics



Case Studies



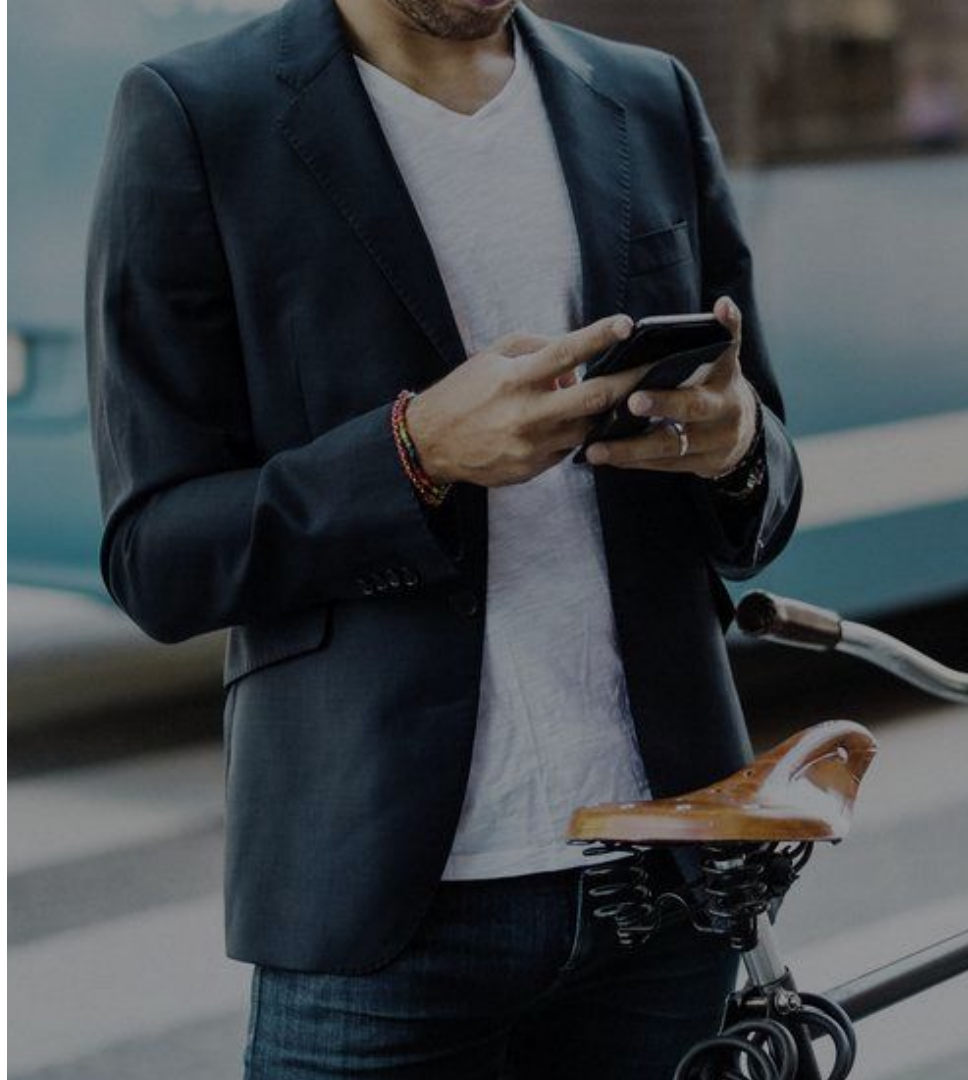
Learnings from developer interviews have been organized into **5 methods to help you unlock successful retention for your app.**

Within each **method**, there is an **overview** slide, followed by **tactics** on how to achieve it.

Finally, in each method we also share **case study examples**, that reflect lessons from developers who are successfully implementing the approach.

Method 01

Optimize for habitual usage



Habits are the holy grail of retention

A user that has formed a habit around your app won't need additional persuasion to keep them coming back - they will do it automatically, with little or no conscious thought or effort. This is different to a routine, which requires a higher degree of intention and effort.

Optimizing your app experience to encourage habitual use should be the cornerstone of your retention strategy.

So how can you get your users to return automatically?



By definition a habit is a behavior done with little or no conscious thought - you can't turn every behaviour into a habit. ”

Nir Eyal, author of [Hooked](#) and [Indistractable](#)

So how do habits form?



Motivation: There must be a **level of desire** for a behavior to occur, the **'energy for action'**



Trigger: Without the **right cue**, a behavior will not happen



Ability: The action must be **easy enough** with **minimal friction or effort**



Reward: There must be a **benefit** that drives the **'itch' or desire** to repeat the behavior

Habits will only form when all key elements are in place and desired behaviors are **repeated** frequently - **daily or weekly**.

How this works in practice for a weight loss app?



Motivation: Survey to capture user goals at on boarding and regular check in



Trigger: Reminder from the app to log calories, set by the user for a specific time



Ability: Single click to reach calorie logging page. Previous entries are saved as pre-fill options, plus easy selection from a long-list



Reward: Unlocking a new meal plan, lead to an achievement badge, or simply register as a milestone on a path to the weight loss goal

Tactics for optimizing habitual usage

Though habit theory might seem complex or hard to implement into your app experience at first glance, a number of developers have employed tactics inspired by this which have allowed them to increase retention.

Remember:

Usage habits and motivations evolve - be prepared to refine your approach across the user lifecycle to optimize for retention over the long-term.

- 01 Tailor the user experience by motivations
- 02 Use reminders and notifications as triggers for repeat behavior
- 03 Reduce friction across the user lifecycle
- 04 Establish a clear reward strategy

1.1 Tailor the user experience by motivations

By understanding goals and motivations, you can connect users to the right features and content to help them stay on for longer.

Identify the motivation early

If possible, ask the user directly about their goal and motivation as part of the onboarding process.

Explore other methods to understand motivations, such as reviewing acquisition channels (e.g. a user clicked on ad with a fasting creative vs ad with wedding creative) or analytics around actions taken in the first week.

Surface the right content

Based on user goals or motivations, highlight features or content that link to directly to these.

Build in additional check in points when you see key goals being reached e.g. when a user completes a goal, ask them what's next.

Monitor the external context too - e.g. some health apps post immune boosting content during the pandemic.

Track & evolve

Evolve how you frame messaging and adjust content as user goals and motivations shift.

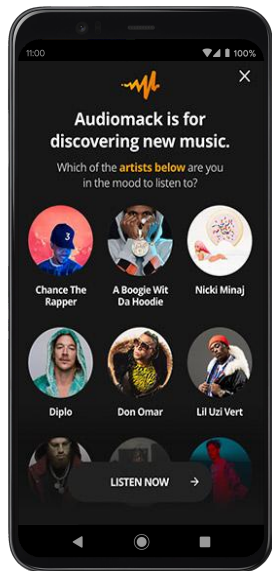
For example, this could be from saving to 'money management', learning a language to 'train your brain' or from calorie tracking to 'meal planning'.

Learnings from developers:



AudioMack

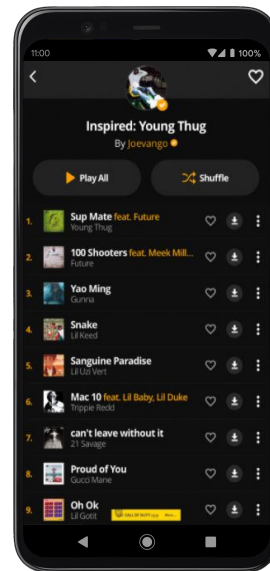
Audiomack is a music streaming platform that allows artists to upload their own music and podcasts



Onboarding captures music preferences

15 randomized artists are displayed for the user to select.

Randomizing the selection enables them to pinpoint the artists that resonate least and remove them from the pool.



Subsequent screens & features connect with stated preferences

The genres and artists are then surfaced on landing screens & playlists pre-populated with what they have selected.

This prompts the user to complete an action in line with their motivations.

This resulted in a boost of their northstar metric

Average **daily plays** from new users (signed up in the last 7 days) **increased by 5%**. Average daily playlist plays by new users significantly recovered after a several week decline following the onset of Covid-19.

1.2 Use reminders and notifications as triggers for repeat behavior

Users need support to establish their habits with helpful triggers, notifications or reminders to complete tasks linked to retention - particularly in the first week.

At first, you might need more

To help establish the habit, set up reminders to act as triggers during early usage of the app - but ensure you dial them down to avoid annoyance once a habit is formed.

Linking actions to a specific time or place can make them feel more manageable. Use contextual APIs - time your messages using contextual signals like user's location, time, etc.

Put the user in the driver seat

Enable users to set and manage their own schedule: when, where and how frequently they want to engage.

Make it easy for users to pause notifications for a set period, such as work hours or holidays.

Adapt to user disruptions

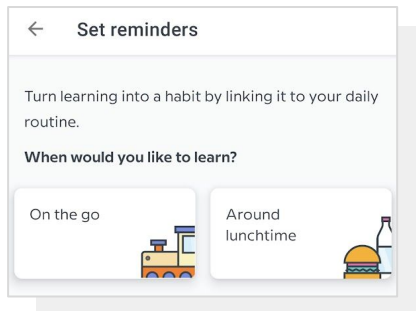
Even when a user has used the app for some time and a clear habit exists, their context can be disrupted and internal triggers disappear.

Use analytics to monitor changes in behaviour patterns, and introduce new triggers at the appropriate time to help restart habit formation.

Learnings from developers:

Babbel

Allows users to set their own habit building prompts

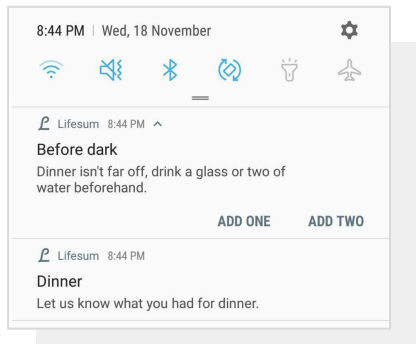


During onboarding the app explicitly references habit building, giving a number of options to tailor user notifications:

- Leveraging existing habits e.g. coffee break
- Setting specific daily time frames
- Setting number of times per week

LifeSum

Sends notifications at meal times to remind users to track what they've eaten



Lifesum tracks whether users have not updated their meal diary at key meal times, sending out a few friendly notifications to remind and encourage users to engage in the moment.

1.3 Reduce friction across the user lifecycle

Anything, no matter how small, that increases the users' effort to do something or wastes their time will stop them coming back and can prevent habits being formed.

Make it easy from minute one

Make the onboarding process as smooth as possible — users can be deterred from taking action by seemingly small barriers, e.g. asking for too much information.

Ease users into the app experience through helpful first-week notifications and guides, or unlocking new features gradually over time.

Find the right release cadence

Avoid sudden redesign of the app. Instead, aim to release features in stages that are logical from the user point of view.

Adjust the onboarding flow to reflect new features and consider creating walkthroughs for new users.

Show them why to invest

Avoid creating friction by showing users what they will get if they take the time to invest in the app, e.g. tell us your music tastes so we show you only what your interested.

Learnings from developers:

Tandem

Optimizes early usage to ensure users get the best experience and are more likely to be matched with an exchange partner early on.

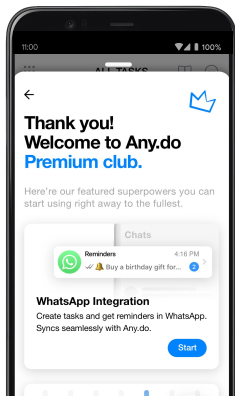


New users are also more visible to the community in the first 24 hours; increasing the likelihood of making a connection and being able to utilise the app fully.

Onboarding walks users through key actions via an activation checklist, educating them on features as well as guiding them to “core” moments in the app experience, like writing and receiving corrections or references.

Any.do

An award-winning app used by millions of people to stay organized and get more done.



After subscribing, thank you messages highlight premium benefits Any.do knows are popular based on user feedback e.g. unlimited attachments, unlimited collaborations etc.

LifeSum

Sends notifications at meal times to remind users to track what they've eaten.



After onboarding, users are immediately prompted to input a meal into their meal diary, to educate them on this core feature.

They are subsequently given a reward message e.g. ‘You’re a tracking expert’ and encouraged to engage with another feature e.g. life-score test.

1.4 Establish a clear reward strategy

Rewards are what keep users coming back to your app - these range from higher level benefits like a feeling of achievement to smaller incentives like a referral code or piece of content.

Reward them immediately

Make it easy for users to see right from onboarding that there is something in your app for them, such as music that suits their tastes, meal plans to fit their lifestyle.

This can be as simple as increasing the salience of relevant content, or showing them content matching their specific goals.

Keep on giving

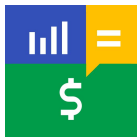
Introduce new benefits as users progress in line with their evolving motivations.

Highlight the value of their subscription with a clear user flow that showcases key features they have gained.

Surprise & delight them

Introduce unexpected features (variable rewards) that are surprising and exciting e.g. unlocking an unknown feature, extra points etc.

Learnings from developers:



Mobilis

Mobilis is a budget planner app which helps users manage their money and track spending

Mobilis deploys a number of distinct reward strategies to maximize the amount of time users spend engaging with the app

Variable free gifts

During the free trial, each day a user returns over a 30 day period, they unlock gifts such as:

- Day 1: Educational content
- Day 2: Useful infographics
- Day 7: 10% off a premium subscription
- Day 14: 20% off a premium subscription

Educational content

3-4 posts of useful articles are made each day across their blogs and social media accounts e.g. 'how to be debt free' '5 tips to save more'. These are linked to within the app and via notifications.

Points system

Every day a user visits the app they receive a number of points.

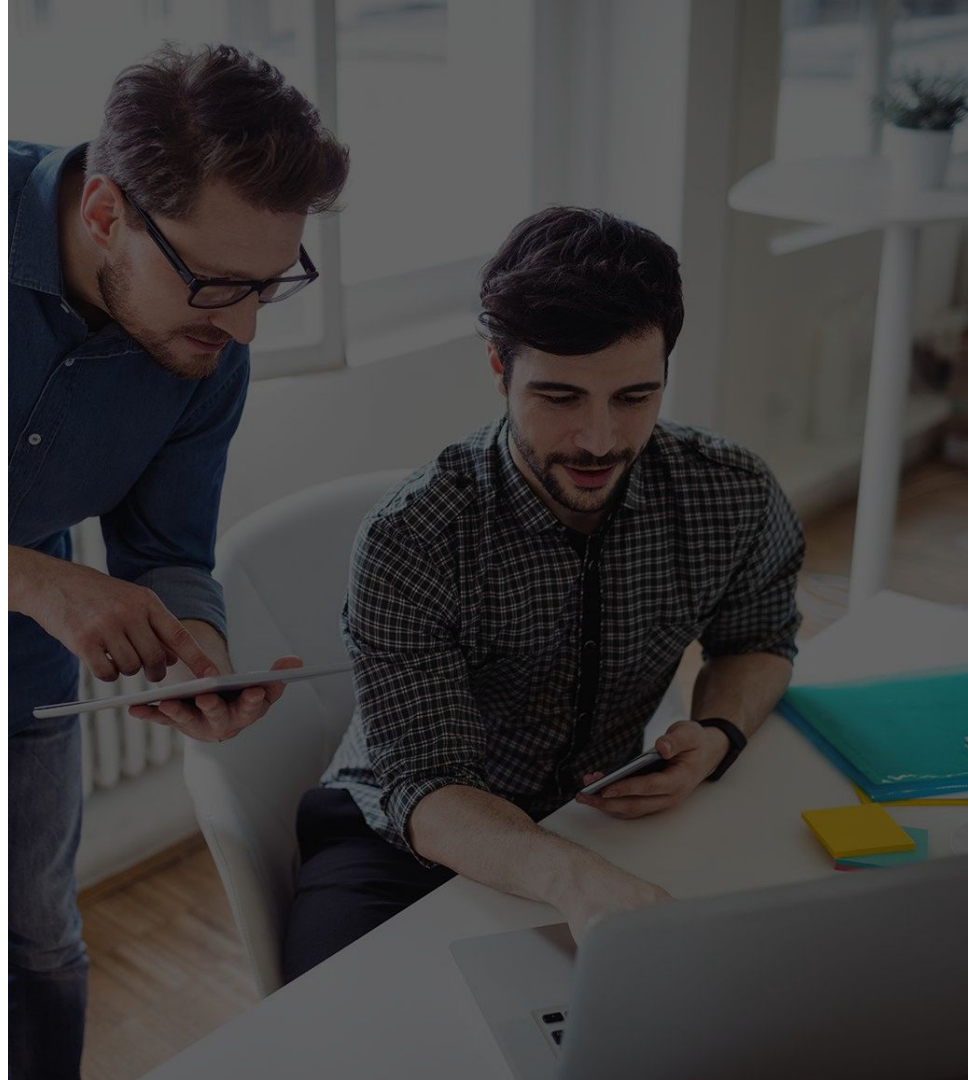
Points can then be exchanged for in-app benefits e.g. finance books.

Tackling subscriber drops due to Covid-19

Using a 30 day reward plan, Mobilis brought subscriber numbers up to pre-Covid levels.

Method 02

Know your meaningfully retained users



Meaningfully retained users show what you are doing well & what to replicate

By reviewing user groups that have been retained over the long-term, and breaking down what key features they have used and at what frequency, you can identify predictors of retention.

Users that completed that action or set of actions over time and formed a habit around your app, are **meaningfully retained**.

Understanding the path to becoming a meaningfully retained user can help you drive retention by modifying the experience for other users, right from day one.

**So how can you ensure your users are
'meaningfully retained'?**

“

This is called habit testing - identifying, codifying and modifying. We define what a habituated user does, then we understand what steps they took, then we change the product experience so that others follow the same steps as the habituated users. ”

Nir Eyal, author of [Hooked](#) and [Indistractable](#)

“

You can incorporate the core action and type of engagement you want to see into the retention metric itself. This provides a defined view of a meaningfully retained user: users who actually come back into the app to do something valuable - not just users who come back to the app. ”

Andy Carvell, Partner & Co-founder, Phiture

Tactics for understanding your meaningfully retained users

Having meaningfully retained users as a north star metric across teams can help to build cross-team collaboration.

Remember:

You may have different types of meaningfully retained user based on patterns in their behaviors and usage intervals.

01

Identify the features and actions that correlate with the highest retention levels

02

Develop pathways for others to follow

2.1 Identify features and actions that correlate with highest retention levels

Look for signals that correlate with long-term retention across different user groups.
Find the features they engaged with early, but also map what this looks like over time.

Find the core features and events that drive higher retention

These signals could be anything from core actions such as listening to a song or completing a task, to more 'exciting' moments like discovering new music or trying out new meal plans.

Ensure you repeat this analysis over time as needed, particularly as new core features are added.

Establish the frequency and intervals required

Understand how often groups of long-term retained users complete the action or set of actions within a specific timeframe. For example, listening to 3 songs within a week.

Use this to establish a definition of your ideal retained user, that includes what specific actions are completed within a specific time at a set frequency.

Look for other patterns in your data

Expand the analysis to take account of variables such as acquisition sources and exposure to certain types of content.

This can help to ensure you capture all elements that can nudge users along the retention path, as well helping to refine your acquisition strategy when relevant.

Learnings from developers:

Tandem

Monitors which activities are most retentive in the first 24 hours



Tandem analyzed their longest retained users' first 24 hours of use to identify which features they used at what frequency e.g. number of messages sent or minutes of video chats had

They found that sending 40 messages in the first 24 hours was a tipping point for long-term retention. This allowed them to define a retentive threshold that they wanted new users to reach.

Quickbooks

Identified various retentive use cases



Quickbooks tracked & ranked the features which had been highly adopted by their retained users (users with them for longer than 90 days).

1. Linking bank accounts
2. Successfully sending an invoice
3. Mileage tracking

Users who accessed the benefits of these features early on in the life cycle were much more likely to stick.

2.2 Develop pathways for other users to follow

Map out the ideal user journey towards retention, and build this into onboarding, first usage and beyond.

Build the pathway

Develop a specific sequence of features for users to be exposed to and actions you want them to take.

Don't overwhelm the user. Try to replicate the early steps your retained users took, and build towards usage of more complex features over time.

Ensure this can evolve over time, if new core features are added.

Ensure users are exposed to retentive features early on

The pathway needs to ensure that the right users are both exposed to and using key retentive features at the beginning of the journey, potentially during onboarding or first use.

Notifications and emails to nudge them should clearly highlight the benefits and make any action feel as easy as possible.

Learnings from developers:

Any.do

Established a clear behavioral sequence they wanted each user to follow



Any.do

Any.do create user benchmarks around the number of set tasks users should complete over a given time frame to form

- Finish 1 task on their first day
- Finish 2 tasks per day after a week
- Finish 3 tasks per day after a month

This allows them to track user progress and guide them down the right path to meaningful retention.

Quickbooks

Use multiple channels to ensure the use of their retentive features



Quickbooks monitor whether new users have begun to use their retentive features.

If they don't use them 3 days after sign up; they send a tailored notification or email that highlights the benefit of the particular feature with a clear call to action:

e.g. we see you've not yet linked your bank account, why not go try it now'.

Method 03

Shape
cohort

strategy to prioritize resources



Creating a nuanced user view helps you identify who and what to focus on

Once you define a meaningfully retained user for your app and scale this to create a habit path for other users, you can look to cohort analysis. It can help you organize and assess those not yet retained users and put them on the right path.

At its simplest, a **cohort can be defined as a group of users with shared characteristics or behaviors over a period of time.** Cohort analysis allows you to assess and compare different cohorts over a specific time period to study all the factors that impact retention.

So how do you shape the right cohort strategy?

“

Your actions are only effective if you action the right set of users with that, whether it's a message, whether it's a different version of the homepage or different flows. It's about understanding your users and segmenting them into as small buckets as you can - this is where people talk about the segment of one. ”

[Sunil Thomas, Clevertap Retention Masterclass.](#)

Tactics for shaping cohort strategy

The biggest challenge around cohorts is creating something you can action with the capabilities and capacity your team has.

Remember:

A simple strategy is better than none at all. Start broad, refine and gradually build the most nuanced understanding you can.

01 Start simple: measure and track what you know you can act on easily

02 Apply more advanced analytics to better tailor activity by cohort

03 Expand cohort understanding with user research and feedback

3.1 Start simple: measure and track what you know you can act on easily

Develop a cohort strategy that is in line with your capabilities and allows you to make actionable changes based on what you know about your users.

Start by building simple segments

- Location
- Device type
- Demographics
- Recency of sign up
- Acquisition channel
- Time of year/season
- Motivations/Goal/Attitudes
(if you can tag or attribute via analytics)

1. At its most basic level, this allows you to tailor content & features to specific groups (e.g. by season or motivation).
2. However, you can also look at whether any of these descriptors (individually or in combination) have specific engagement or drop off patterns, or are more likely to be retained for a given time period.
3. You can also explore their activity over different time periods so you know when best to act to keep them engaged e.g. users with specific motivations may be more likely to drop off after a certain number of days.

Learnings from developers:

Babbel

Identifies three key indicators that impact on when and how they target users



Babbel segments their users with a number of simple groupings:

geolocation, recency of becoming a lead and motivations (captured at onboarding) e.g. learning for a holiday.

They utilize these groups to better target who to invest in and when e.g. those learning for a holiday are more heavily targeted in spring.

LifeSum

Identifies three key indicators that impact on when and how they target users



Lifesum uses the advertising creative from acquisition to inform their cohort strategy.

They personalize the users' initial experience according to the content of ad they clicked on before sign up.

For example, clicking on a keto diet post on instagram means users will see keto options more prominently in the app.

Quickbooks

Optimizes acquisition of users most likely to be retained by by analyzing high level characteristics



Quickbooks compares demographics, job type, region and other simple groups to map which are more likely to be retained.

Then prioritizing acquisition spend on channels that deliver groups who are more likely to stay.

3.2 Apply more advanced analytics to predict and personalize at scale

Use advanced analytics and machine learning to predict underlying drivers of behavior and deliver a better user experience.

Look beyond the surface of your data

At a high level, data is often superficial, can be misleading, and will not always reveal the reasons behind user preferences and behavior.

Only advanced analytics can provide this deeper level of understanding to allow you to predict behavior and adapt content in the right way.

Predict user needs & behaviors

Use AI and prediction models to anticipate the user's regular needs and behaviors to offer more relevant contextualized information and minimize effort or friction.

For example, being able to predict what food or other inputs users will be entering into a diet app would allow the inputs to be pre-filled, eliminating friction for the user.

Learnings from developers:

Lifesum

Uses machine learning and AI
to predict daily user needs

Lifesum

Machine learning & AI allow Lifesum to recognize nuanced patterns in an individual's behavior. Their models are able to make over 1 million predictions on what a user wants to achieve within a key time frame.

Looking at each user's meal diary entries they form a database of food/meal type and the locations and times they are eaten.

When a user comes to input a new meal, analysis of the database enables LifeSum to predict and prefill meal suggestions e.g. a user regularly eats at certain Japanese restaurant every Friday, so the app pre-fills all the usual food detail.

3.3 Build out cohort understanding with user research and feedback

Ensure you understand what is driving behavior by combining your behavioral data with direct customer engagement via research.

Create on-going in-app feedback mechanisms across the journey

Identify key points where feedback could help improve user engagement. e.g. when users do not complete a key action, frequency of usage drops off, a goal is taking longer than expected to meet etc.

Once you've identified these points, give users an intuitive way to leave feedback.

Run dedicated surveys

Set up user research outside the app to get user input into potential improvements.

Explore what features paid and re-subscribed users are appreciating vs other cohorts.

Build and monitor spaces for user discussions

Use other channels beyond the app to get more qualitative feedback such as ratings & reviews on app stores and social media forums/user groups.

Learnings from developers:

Yazio

Uses multiple feedback channels to better understand user needs



Yazio collects and monitors user feedback both from their customer care team and their popular Facebook group that consists of more than 130,000 users in their core market.

Any.do

Runs surveys to explore which premium features are most attractive to users



Surveys ask simple questions e.g. which features users want the most, which they value the most and what is their favourite premium feature.

The best performing activities are prioritized in user messaging.

Tandem

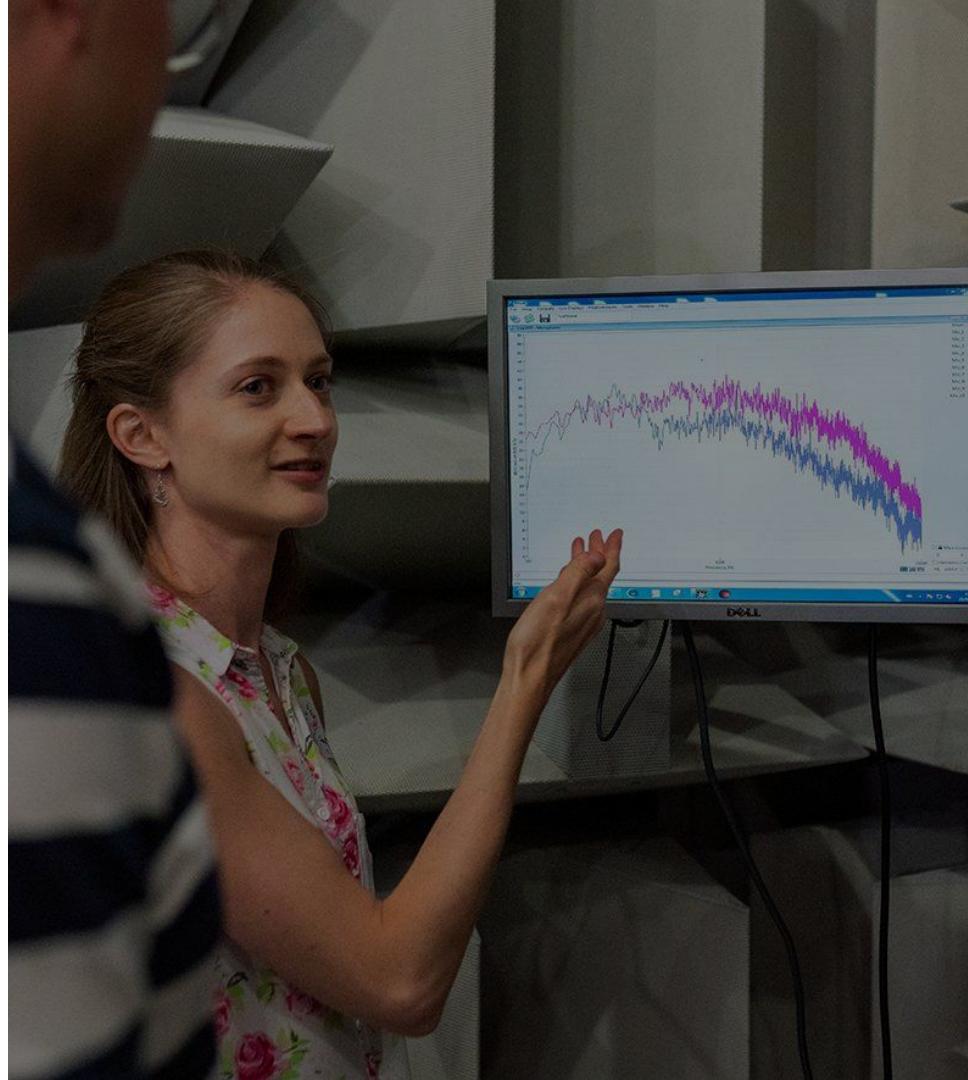
Runs regular user surveys and qualitative interviews to dig deeper



Tandem runs surveys and interviews to go beyond what their data can tell them and understand the why behind user behaviors. One survey includes questions for NPS, product/market fit and happiness with the community. Another survey is shown to those who decided to delete their account and asks them for the reason why.

Method 04

Create retention metrics that actually reflect your app



To be actionable, metrics must relate to the right time frames for your app

Standard measures of retention such as DAU and MAU do not reflect level or frequency of engagement for your app, but just capture the flux of users at single moment in time.

Metrics need to reflect a series of time periods that take into account both the user journey over time and how often different segments of users engage with your app.

1. Don't be constrained by restrictive industry defaults
2. Personalize time related metrics for your app just as you tailor content and actions for your users
3. Don't just look back, metrics can also look forward

So how can you identify the right metrics for your app?

Tactics for creating the right metrics:

To develop the right time based actions and metrics, ensure that you are set up to measure, track and action:

- Behavioral patterns of users and specific groups of users in your app
- Changing user contexts and engagement levels over time
- A range of different time periods within the user lifecycle

Remember:

It is important to identify the time frames that are right for your app.

01

Identify the natural rhythm of your app

02

Think long term - and blend timing with actions

4.1 Find the natural rhythm of your app

Understanding the natural variations in engagement of your app will allow you to identify and predict when subscribers are at risk.

Establish general frequency benchmarks for your vertical

Usage frequency is highly context driven and benchmarks must be relevant for your app. Health or productivity may involve multiple interactions a day vs. education or finance which might be less frequent.

Knowing how often you should expect a user to be engaging helps quickly highlight 'at risk' moments when users start to drop off.

Determine which features have a higher frequency of use

Look at data feature by feature to understand which have higher frequency e.g. tracking a meal = multiple times a day, reviewing food diary = once weekly.

Combining recency of these actions with frequency allows reminders to be sent at the right intervals, and quickly flag retention issues, especially for 'daily' features.

Allow for expected pauses in feature use

Some activities have a natural conclusion e.g. end of a lesson or finished listening to an album.

Ensure your tracking system can account for natural pauses between activities, so they are not misclassified as moments of low engagement.

This avoids irritating users with reminders when they are not needed.

Learnings from developers:

Babbel

Take into account natural breaks in usage and tailor comms accordingly



Babbel have identified key usage cycles around standard annual holidays. Users tend to naturally pause during the summer vacation period or Christmas and re-engage in Sept or January.

This means communication is carefully timed to maximize impact and avoid irritating users.

Quickbooks

Track usage frequency rates across multiple key features to understand cycles of engagement



Quickbooks identified that different features have different frequencies of usage. This helps them establish a time related benchmark to judge when engagement is dropping off

e.g. mileage tracking occurs daily vs. invoicing which happens monthly.

This ensures reminders are then sent at the right time.

Learnings from developers:

Mobills

Outline the perfect 60 day journey



Mobills identified that after 60 days of continual use, including adoption of main features and a clear understanding of the value proposition, that these users could stay as long as 3 years.

Once over this threshold, they move resources back to focus on newer users.

Quickbooks

Optimize for 90 day retained customer



Quickbooks identified that a user retained for 90 days is likely to stick for a further 18 months. Although they optimize for cohorts within this, the key measure is a 90 day retained user.

4.2 Think long-term, and blend timing with actions

The first few days are critical for engagement but retention is a long term strategy that requires you to look beyond initial interactions and continually optimize.

Set up retention goals which include specific actions at key points in the user journey

Establish usage frequency and level of engagement benchmarks specific to your app across multiple time intervals (0, 3, 7, 14 etc) and set retention goals based on these, e.g. retained users return 3 times in first 3 days and complete 4 specific events.

Whilst day 0, 3 and 7 are important, you should also look beyond this, to 14, 60 and 90 days for example. You may need to be nudging for continual use of specific features, and designing tailored rewards along a longer user journey path than the first week.

Find the right time period to predict longer-term retention

This could be a high level time based metric, such as engagement for a set number of days, correlating with propensity to be retained for a set period (e.g. 1 year).

When using a fixed time period as a measure, identify what actions users need to complete in this period to remain retained. e.g. 30 day usage plus 4 actions per week.

Consider KPIs around likelihood of returning within a time frame e.g. such as for those active on a given day, how many may come back with the next 3, 5, or 7 days.

Learnings from developers:

Tandem

Send out weekly reminders of the value users are receiving



Tandem reminds users of unread messages and new potential exchange partners from the previous week, which resulted in a 10% uplift in engagement on the day reminders were received.

Audiomack

Celebrate & connect with users at key milestones



Across the user lifecycle Audiomack sends out celebratory messages after key achievements are reached. Completed achievements and milestones are stored and displayed in a 'Trophy Room'.

e.g., if user has hits 1,000 plays or 50 people favorited their playlist.

Method 05

Establish clear churn predictors to act early



Identifying early churn predictors allows you to re-engage users before it is too late

Identifying patterns and key events that lead up to dormancy and unsubscribing provide signals to show when other users are at risk. Once dormant, it may already be too late to win users back, even though they may still be subscribed.

You need to analyze usage behaviours to identify:

1. When users typically start to disengage having continuously used the app.
2. What they are doing or not doing in the app in the lead up to reduced usage.
3. The optimal time frame before churn where there is still a window to re-engage them.

So how can you intervene before it's too late?

“

If you can figure out how you can engage people and how you push them in the right direction, it is easier to solve pre-churn vs. post churn. ”

[Almitra Karnik, Head of Marketing, CleverTap](#)

“

With subscription apps there is a more obvious opportunity to churn, but they may have become dormant before that, there is a lot of debate about when the right time to re-engage is. ”

[Andy Carvell, Partner & Co-founder, Phiture](#)

Tactics for establishing clear churn predictors and acting early

Users do not disengage overnight. There will be clear signals that can help you find the right moment to try and re-engage them.

Remember:

It is important to acknowledge that your app might not be right for all users. Focus on the ones that will bring you value rather than wasting resources on those who you can identify as having low levels of activity despite a number of efforts to re-engage.

01

Create a churn early warning system

02

Reinforce the value of your app at engagement dips

03

Optimize subscription end to increase chances of renewal

5.1 Create a churn early warning system

Map out key churn predictors to help identify low engagement behaviors and focus where to deploy prevention measures.

Redefine the point of churn

Look at engagement data to establish how long a user needs to be dormant for to be classed as 'potentially churned'

e.g. if they have not returned in 7 vs. 14 vs. 30 vs. 45 days.

Identify red flags in your user data

Look out for churn clues, such as:

- Superficial engagement, e.g. they only open the app vs. complete an action
- Not interacting with features you have identified as retentive
- Users looking at the cancelation flow

Track your churn trajectory

Analyze the following:

- Frequency of engagement i.e. is it less than other retained users
- The speed that engagement has declined i.e. sudden drops in usage require speedy action to stem the decline, whilst gradual declines can be tackled over a longer timeline

Learnings from developers:



Quickbooks

An accounting app that helps small to medium sized business with their, business payments, bills, payroll and beyond

Quickbooks deploys a number of distinct reward strategies to maximize the amount of time users spend engaging with the app

Quickbooks uses detailed modelling to deconstruct the behaviors of their recently churned users. They create 'user risk profiles' that highlight what behaviors correlate with high likelihood of churning.

Churn risk profiles consist of 200 to 300 discrete in-app behaviors, including lack of interaction with features, number of days dormant, failure to achieve north star metric and more.

These user 'post mortems' allow them to put in place tailored engagement strategies when a user begins to show similar signs of churning. Messaging can be timed to nudge users towards desired behaviors.

They continue to evolve and adapt this strategy as new & different users join each day.

The result

Early response to warning signals has allowed Quickbooks to intervene to reduce risk of churn.

Learnings from developers:

Babbel

Identified a correlation between key completed events and churn

The Babbel logo features a stylized orange plus sign followed by the word "Babbel" in a bold, orange, sans-serif font.

Babbel's machine learning team analyzed engagement data in the 14 days prior to renewal, when most cancelations happen.

They identified those who completed a lesson in that period were less likely to churn vs. those who completed a study review.

This enabled them to focus on sending out an e mail tailored to pushing them to complete a lesson rather than a review, resulting in a positive impact on retention metrics.

5.2 Reinforce the value of your app when engagement dips

Reminding users what they are getting from your app can help them reconnect

Highlight what they've achieved

Demonstrate the value they've received so far e.g. you've tracked 15 healthy meals with us.

Be sure to personalize content as much as possible to make the user feel valued.

Highlight what they will miss out on

Guide them to new features they have not yet interacted with e.g. you haven't used one of our most popular features.

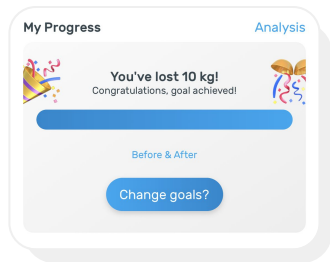
Showcase how the app is/has improved

- New features that are coming soon
- Technical fixes & feature updates
- Losing usage streaks

Learnings from developers:

Yazio

Dials up the user's sense of achievement by celebrating when users reach key goals



YAZIO uses progress bars and celebration screens to motivate users to keep going with their weight loss goals. This visually powerful positive feedback creates a big reward and encourages the user to return.

Mobills

Re-engages users with tailored & timely messaging



Mobills sends out tailored messages and notifications when engagement is dipping

e.g. to offer a free gift, to provide an encouraging message or to ask them to update any details that may cause involuntary churn.

Lifesum

Sends notifications to remind and educate users of key app features



Lifesum analyzes and identifies where usage is declining but users are still partially active.

Users are sent messages to help get them re-engaged. These include reminding users of key features and introducing them to elements that can support their goals such as coaching.

5.3 Optimize subscription end to increase chances of renewal

Subscription renewal window is always a potential risk - don't give users a reason to cancel

Identify the key subscription renewal window and act

Identify the time frame leading to renewal where you have the best opportunity to act - and don't assume it is always 14 days.

Identify key user actions in this time frame to see how they correlate with churned vs. retained users, and nudge at risk users to complete the same actions as retained ones did.

Offer other options beyond canceling

Offer subscription pauses.

Show different subscription plans e.g. move a user from a \$10 plan to \$6 plan.

Consider and test different ways to frame renewal

Loss vs. gain - a user may be more motivated to avoid a loss vs. getting a similar gain.

Personalize - tailor messaging to make users feel valued.

Reciprocity - Give back with gifts/exclusives or loyalty programs.

Create reference points for the price e.g. same as a cup of coffee

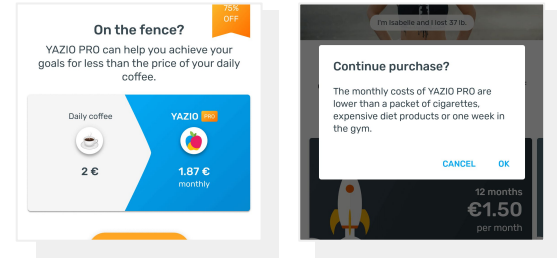
Learnings from developers:

Yazio

Compares the cost of subscription with other regular expenses



Yazio shows that a monthly cost of a Yazio subscription is less than a daily cup of coffee and less expensive than some diet products.



Quickbooks

Highlights achievements and key features to trigger FOMO



During cancelation flow Quickbooks showcases what the user has achieved via the app e.g tracked 1000 miles, and highlights features they have been paying for but not used yet.

And when implementing these methods,
**test, review, modify
and then test again**



Testing is key

The methods outlined can be executed in a number of ways, and the only way to understand what works best for your app is to run experiments.

Remember:

- You can't test too much or too often. Testing allows you to refine features, actions and cohorts over time.
- Learn from failures. Review and refine the target, timeframe or execution and test again.
- Check in over time with cohorts to ensure that the action tested has a positive ROI over the longer term.



We test everything. Most things go through AB testing. The best strategy is to reduce the number of solutions...try to find what is working or not. ””

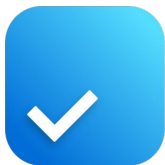
[Nina Pollex, Babbel](#)



If you really want to solve retention, and you think holistically, that includes messaging, omni-channel, real, deep segmentation, personalization, there are many things that have to come together. A mindset of experimentation and iteration, right? You've got to be able to iterate, measure, experiment, iterate again. ””

[Sunil Thomas, Retention Master Class with Peggy Ann Salz and John Koetsier](#)

Learnings from developers:



Any.do

Any.do constantly runs experiments to trial options and features that could optimize retention.

Not all motivations are helpful

Any.do collected use case data around the app, to better understand user personas. This included information around whether they were using the app for personal life, or using it for a family etc.

They ran a test to showcase specific app features related to the use case, and there was no impact on retention metrics.

Showcasing all features after sign up may not drive retention among all groups

Any.do wanted to increase the conversion rate from trial. Before the experiment they had identified a group of users that subscribed and cancelled on day 1.

They created an experience to 'celebrate' sign-up, with a post-purchase experiences that showcased all the premium features that they had unlocked. However, while this did reduce day 1 churn, it netted out after a week.

A culture of experimentation

Any.do continues to explore these areas, and has run a number of successful experiments to drive retention, but they are well versed in learning from experiments that don't work.

Learnings from developers:



Babbel

Babbel continually runs testing across all features and retention efforts.

Churn interventions need to be earlier

Babbel identified three groups with a very high risk of churn 2 weeks before the renewal date. They were then targeted with different messages.

One received an upgrade offer for a package with a longer period but cheaper overall, one received a motivational style message re-introducing the benefits of Babbel, and the third group received no message at all.

Results showed no difference in churn across the groups. This has led them to conclude that the decision had been made earlier, and that they need to try extending the time frame and run the test earlier, as well as trialling other interventions.

Test, test, and test again

Babbel uses A/B testing as much as possible and employs a range of different testing methods across the app to lower the risk of new features, messaging and other changes and additions.

To sum up...

Retention is the cumulative end-result of all user interactions, and it therefore requires a sophisticated measurement strategy and cross-team focus within the organization.

01

Optimize for habitual usage

02

Know your meaningfully retained users

03

Shape cohort strategy to prioritize resources

04

Create retention metrics that actually reflect your app

05

Establish clear churn predictors to act early

+

Test, review, modify and then test again



Thank you

Project conducted in partnership with
The Behavioral Architects