

A/B Test Case Study

Streaming App Homepage Experiment

Background

A streaming platform wanted to improve early user engagement and paid conversion. Many new users watched one show but did not return consistently or upgrade to a paid plan. The product team hypothesized that making it easier to resume content would increase engagement and conversion.

Methodology

We ran an A/B test on the app homepage.

Group	Experience
Control (A)	Standard homepage layout
Treatment (B)	Added personalized “Continue Watching” row at top

- Users were randomly assigned to groups
- 4,000 users included
- Metrics tracked for the first 30 days after exposure

Key Metrics

Metric	Why It Matters
Conversion Rate	Did more users subscribe?
Sessions First Week	Did the feature increase early engagement?
Avg Session Length	Did users spend more time watching?
Day 7 & Day 30 Retention	Did users keep coming back?
Revenue per User	Did the experiment increase monetization?

Results

Metric	Control	Treatment	Impact
Conversion Rate	Lower	Higher	Treatment improved subscription likelihood
Sessions First Week	Lower	Higher	Users engaged more often

Avg Session Length	Slightly lower	Slightly higher	Deeper content consumption
Day 7 Retention	Lower	Higher	Short-term retention improved
Day 30 Retention	Slightly lower	Slightly higher	No long-term retention harm
Revenue per User	Lower	Higher	Monetization increased

Key Insights

1. The Treatment group consistently outperformed the Control group across engagement, retention, and conversion metrics. The largest impact was seen in first-week activity, suggesting the personalized homepage element successfully improved early activation.
2. Importantly, increased engagement did not negatively affect long-term retention, indicating the change improved user experience without creating short-term-only behavior.

Recommendation

Based on the experiment results, the “Continue Watching” feature should be rolled out to all users.

Future analysis could explore:

- Personalization algorithms for recommendations
- Impact on different user segments (new vs returning users)
- Long-term revenue lift beyond 30 days