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The Impact of Pop-up Timing on Online Subscription Rates

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Introduction

Background

- Sign-up pop-ups are a common strategy employed to capture user interest and encourage subscription to newsletters, offers, and updates.

- Explore the **impact of the timing** of pop-up on user engagement and subscription rates

Hypothesis

- Altering the timing of the subscription **pop-up to appear after users have had sufficient time to engage with the content will lead to higher sign-up rates** compared to immediate prompts.
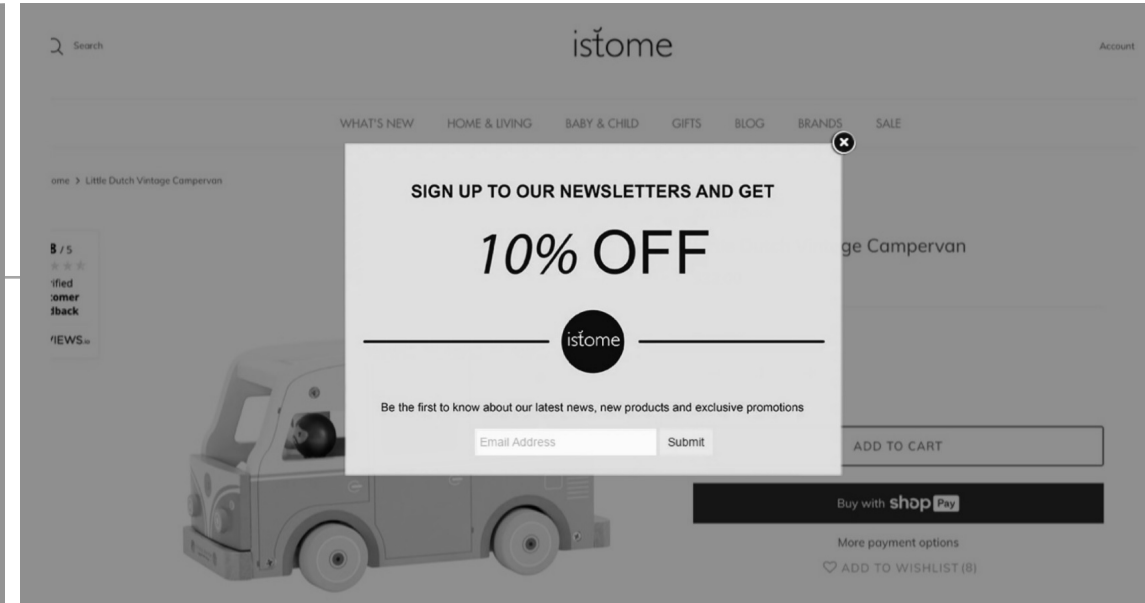
- OEC: Sign-up rates

Study Design

- Participants were randomly divided into two groups: a **control group** receiving the immediate pop-up window and **a treatment group** experiencing a delayed prompt.

- The questionnaire is divided into two main sections: **user behavior and experimental inquiries.**
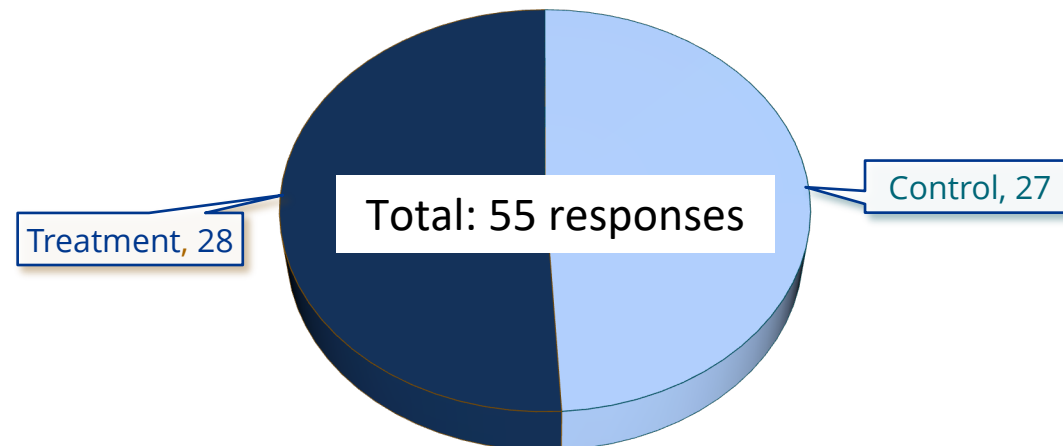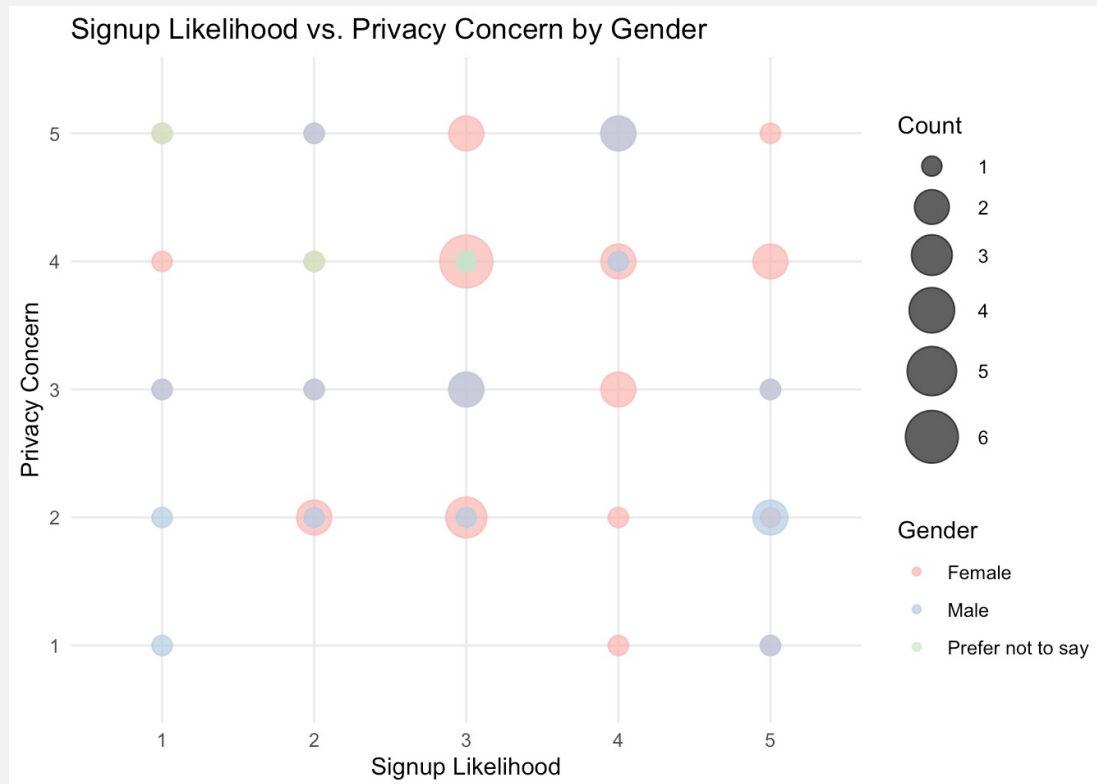
Control Group

Treatment Group

Pop-up immediately

Pop up after some interaction

Total: 55 responses

Treatment, 28

Control, 27

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User Behavior Analysis

Signup Likelihood vs. Privacy Concern by Gender

- Relationship between **signup likelihood** and **privacy concerns**, with gender distinctions highlighted through color coding

- The distribution of bubbles **does not demonstrate a clear correlation** between signup likelihood and privacy concerns

- **Female respondents** appear more frequently and with larger sizes, which suggests a higher participation rate among females in the study.
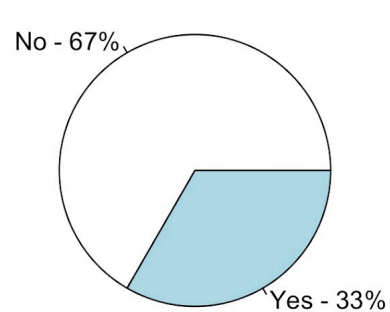
User Behavior Analysis

- Females reported a peak in willingness to sign up at a moderate likelihood level (a score of 3)
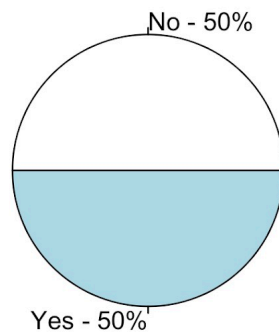- Male responses show less variation across the likelihood scores.

Percentage of Each Gender by Sign-up Likelihood
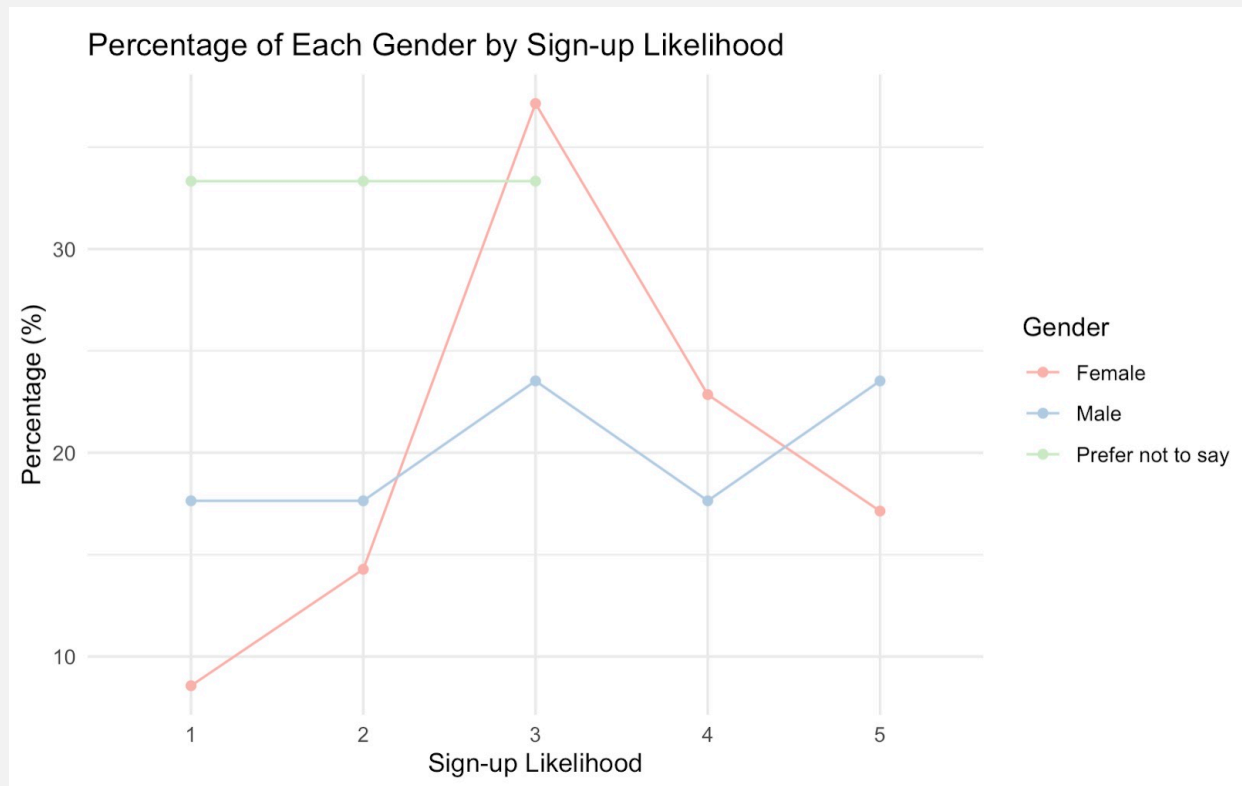
Treatment Impact Evaluation

Sign up Pie Chart of Control

Sign up Pie Chart of Treatment

No - 67%

Yes - 33%

No - 50%

Yes - 50%

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Pearson's Chi-squared test with Yates' continuity correction

data:  observed_counts
X-squared = 0.95904, df = 1, p-value = 0.3274
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- Treatment group has a **higher** proportion of affirmative responses to signing up
- However, the results of this test yielded a p-value of 0.3274, indicating that this difference is **not** statistically significant.

Two-tailed t-test

Test	t-value	df	p-value	CI 95% Lower	CI 95% Upper	Mean of Control	Mean of Treatment
Further Exploration	-1.1908	51.544	0.2392	-0.8525242	0.2176035	3.111111	3.428571
Satisfaction	-1.8546	52.958	0.06922	-1.1618959	0.0454938	2.37037	2.928571
Credibility	-2.2048	50.212	0.03208	-0.97061928	-0.04525374	2.777778	3.285714

- **Goal**: to examine the impact of the treatment on user satisfaction, their perception of the website's credibility, and their willingness to explore the website further.
- Only **credibility** aspect had a p-value < 0.05; users exposed to the treatment perceive the website as more credible
- While the p-values for the other aspects did not indicate statistical significance, it is noteworthy that all three factors exhibited **higher mean scores in the treatment group**.

Difference-in-Differences (Diff-in-Diff)

Dot Plot of Sign up Response by Account or Guest Status
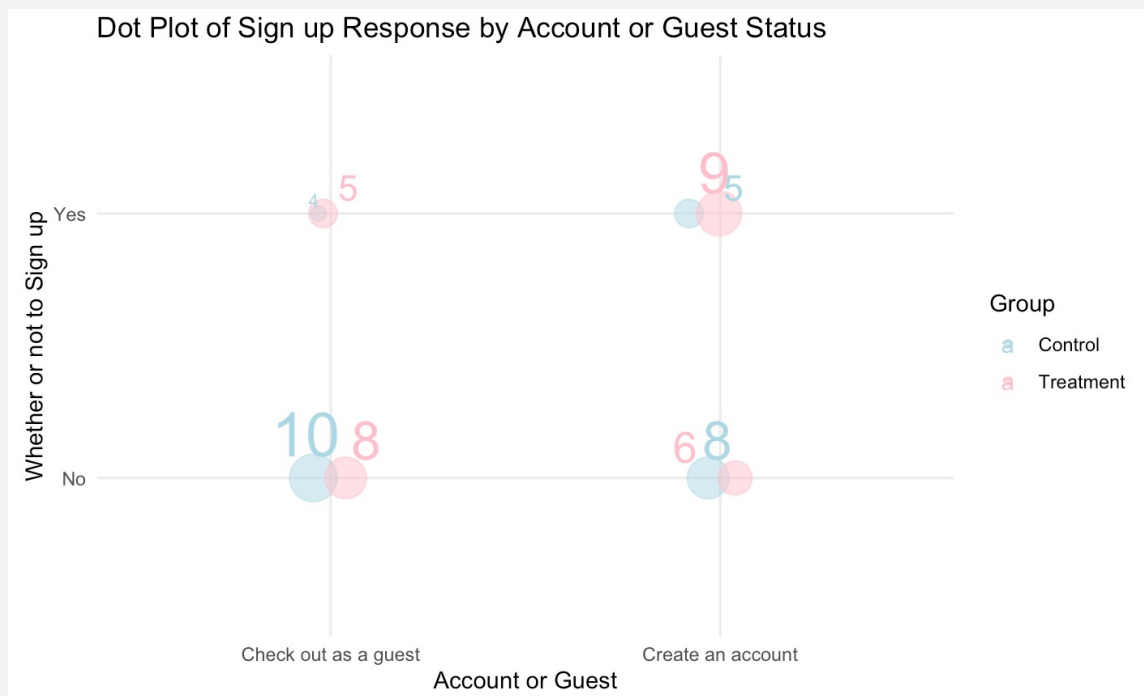
- Goal: compares the pre- and post-treatment shifts in outcomes between a treatment group and a control group
- Initial: 'sign up or guest checkout'
- After treatment: 'Whether or not sign up"

# Sign up	Treatment	Control
Before	A = 15	B = 13
After	C = 14	D = 9

- Treatment effect = (C-D)-(A-B) = (14-9)-(15-13) = 3

Results

1. Our observations indicated a trend where the treatment group demonstrated a greater tendency to sign up in comparison to the control group. However, did not reach statistical significance.
2. Those in the treatment group rated the website as more credible on average than those in the control group.
3. This approach revealed a net positive effect of the treatment on the decision to sign up among users who were initially reluctant. Specifically, the treatment persuaded 5 out of 13 users who were not considering signing up initially, a conversion rate marginally better than that of the control group.
4. Limitation: sample size, Overall Evaluation Criterion (OEC)...

Thank you!

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