A/B Testing

Part 1

Arranged by Melissa Nsiah

The A/B Test Plan

I decided to test different variations of an ad for the collectibles and video game retail store, Chad's Game Room. The variable tested was the caption for each ad.

I evaluated performance based on engagement. Engagement was measured by the likes and comments each ad received. I hypothesized that variation 2 would be the winner, due to having more questions about specific hobbies. I believed that the caption would be more personalized based on the ability to garner a sense of familiarity from the audience.

Two groups were created to be tested on. Each group consisted of 40 members chosen through randomized selection.

It ran for a duration of three days (Tuesday to Friday).

I decided to test the ad, because I wanted to see how a change of captions could possibly differ in engagement based on the strategy. I am also familiar with the store's owner and will be helping with the store's marketing in the future, so performing these A/B tests will serve as practice.

The Content

The two versions were:

Variation 1 – Control: Looking for something to do during your break while you're working from home? Chad's Game Room has video games, comic books and collectibles to keep you entertained! Check us out at www.chadsgameroom.com or come visit us at 26 King Street West, Bowmanville, Ontario L1C 1R3!

Variation 2 – Test: Are you Team DC or Team Marvel? Do you prefer Pokemon or Magic the Gathering cards? Are you faithful to Nintendo, Playstation or XBOX? Chad's Game Room has video games, comic books and collectibles to keep you entertained! Check us out at chadsgameroom.com or come visit us at 26 King Street West, Bowmanville, Ontario L1C 1R3!

Changes after the Status Check

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It's important to note that there was change from the original plan. Rather than the attached photos being altered, I decided to change the text of the post.

Since click-through rate couldn't be monitored due to the ad not being paid, the comments were monitored as a source of engagement alongside the likes.

The duration of the A/B Test changed from a week to 3 days (Tuesday to Friday). It was decided that the groups would only need a few days to engage with the post.

Variation A

Melissa Nsiah
3d

Looking for something to do during your break while you're working from home? Chad's Game Room has video games, comic books and collectibles to keep you entertained! Check us out at www.chadsgameroom.com or come visit us at 26 King Street West, Bowmanville, Ontario L1C 1R3!

Minh Trang, Ayyappan Thiru and 18 others   14 Comments Seen by 32

Trần Kim Ngân Great! I'm looking Inuyasha collection. Do you have it?

Like · Reply · 3d

Melissa Nsiah Trần Kim Ngân No, sorry!

Like · Reply · 3d

Trần Kim Ngân You don't have mango, do you? 🙀

Like · Reply · 2d

Trần Kim Ngân Manga*

Like · Reply · 2d

Melissa Nsiah Trần Kim Ngân No, sorry! Mostly comics from DC or Marvel. For manga, I would suggest The Beguiling or Silver Snail in the downtown core 😊

Like · Reply · 2d

Write a reply...

Anjali S Nair Will definitely Checkout their website! Thanks 😊

Like · Reply · 1d

Jona Haxhiaj thank you 🙂

Like · Reply · 1d

Manya Tailor Great! Thanks 👆

Like · Reply · 22h

Engagement from Variation A

Most of the comments were inquiries about the store's offerings.

Maddie Rogers Do you have games for the Nintendo Switch?

Like · Reply · 2d

Melissa Nsiah Yes we do! https://www.chadsgameroom.com/nintendo-switch

CHADSGAMEROOM.COM
Nintendo Switch — Chad's Game Room

Like · Reply · Remove Preview · 2d   👍 1

Claudia Regina de Souza Do you have gaming headsets?

Like · Reply · 1d

Melissa Nsiah Claudia Regina de Souza Sorry! Don't have any at the moment.

Like · Reply · 1d

Claudia Regina de Souza Melissa Nsiah thanks

Like · Reply · 1d

Write a reply...

Aasil Imran I have been looking to add to my gaming collection. Let me check the link.

Like · Reply · 1d

Write a reply...

Variation B

Sample Groups
The test and control groups consisted of 40 members chosen through randomized selection. There were no set demographics needed to be chosen for the test.
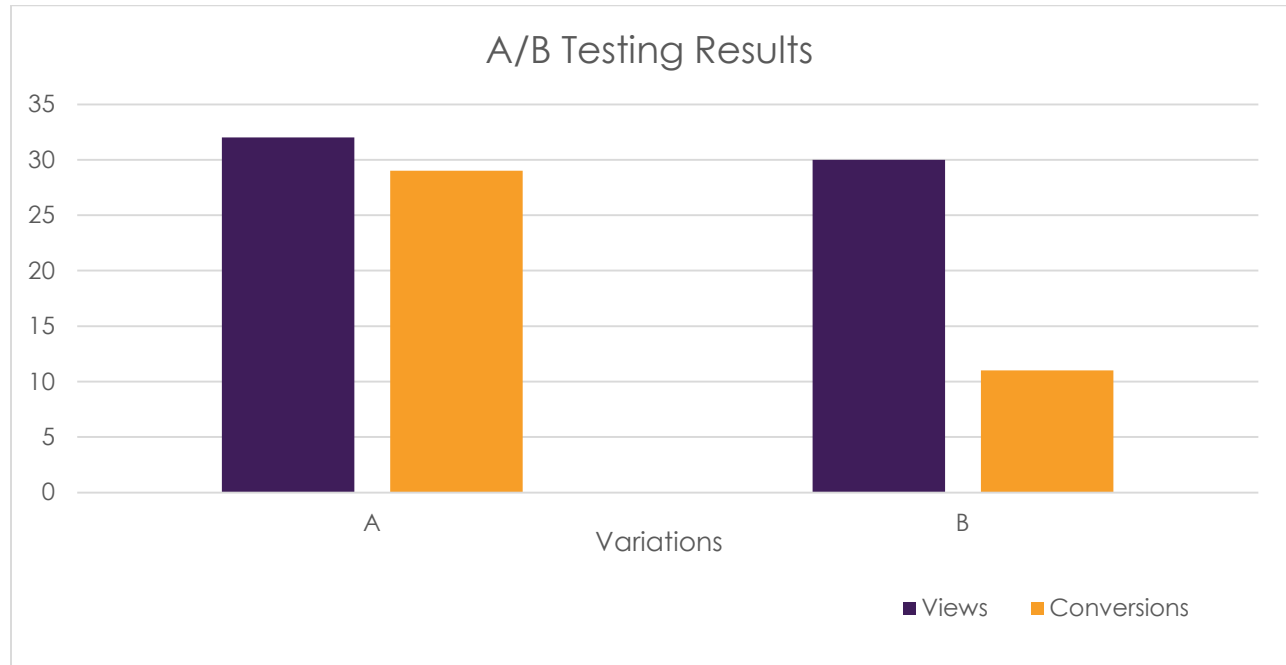
Analysis and Key Learnings

I hypothesized that variation 2 would succeed, due to having more questions about specific interests, but variation 1 came out as the winner. I believe the text regarding working from home, resonated well with the audience more, due to it being a common factor for everyone in each group.

Step 1:	Plug and Chug your Views and Conversion rates from each variation here!			
		Views	**Conversions**	Plug your result into the red cells on the left (D5:E6)
	Variation A	32	29	
	Variation B	30	11	

Step 2:	Your variations' conversion rates and standard error.			
		Conversion Rate	**Standard Error**	You'll see the conversion rates and standard level of error calculate automatically for you based on the numbers you inputted in Step 1.
	Variation A	90.63%	5.15%	
	Variation B	36.67%	8.80%	

Step 3:	Significance levels based on your inputs			
	90% Conversion Rate Limits			Based on your inputs in Step 1, you'll see the estimated range of confidence that the value is statistically significant based on Z score confidence intervals. These are then used to test the P value against the confidence intervals. Feel free to look at the equations within the cells to see how the logic is calculated.
		From	*To*	
	Variation A	82.12%	99.13%	
	Variation B	22.15%	51.18%	
	95% Conversion Rate Limits			
		From	*To*	
	Variation A	80.53%	100.72%	
	Variation B	19.42%	53.91%	

Step 4	How confident are we that your test is significant based?		
	Significant At		This step calulates the results. If P passes the 90% and the 95%, you result below will say the test is statistically significant. If P passes the 90% but not the 95%, the result will say it is unlikely to be statistically signficant. If the results say it does not pass either, the test is not statistically significant.
	Does it pass 90% confidence?	YES	
	Does it pass 95 Confidence?	YES	
	Z =	5.2921	
	P-value =	1.00	

Step 5	Are you test signifiant? Find the answer here.		
Read cells to right, then down	**Version A** converted **147.2%** better than **Version B.** We are certain that the changes in **Version A** **100%** will improve your conversion rate. **Your test is statistically significant!**		Read cells C38:E41 to the right, then down. The results of your test (and whether or not they are significant) will be printed for you here. For the logic behind the formulas, feel free to click into the cells.

A/B Testing

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A/B Testing Results

Variation 1 garnered more likes and comments, while variation 2 received only likes (which were less than the competing variation).

According to the A/B Testing Calculator, Variation A has a conversion rate of 90.63%, with a standard error of 5.15%, while Variation B has a conversion rate of 36.67%, with a standard error of 8.80%. Based on statistical significance, Version A converts 147.2% better than Version B. The test was statistically significant, since the p-value passes 95% confidence.

From this test, I learned that the caption may be an effective variable for enhancing the engagement of the audience. Though my previous hypothesis was incorrect, it was interesting to see how the audience engaged with both posts.