Final Assignment

A/B Testing at Item Level

We are running an experiment at an item-level, which means all users who visit will see the same page, but the layout of different item pages may differ.

Question 1: Does this table have everything you need to compute metrics like 30-day view-binary?
ANS: No, the given table does not have a date column or when the test starts so this table does not have everything you need to compute metrics like 30-day order-binary.

1. Data Quality Check

| | item_id | test_a | test_b | test_c | test_d | test_e | test_f |
	item_id	test_a	test_b	test_c	test_d	test_e	test_f
1	2512	1	0	1	1	0	1
2	482	0	1	1	1	0	0
3	2446	0	1	1	0	1	0

This table only shows the first 1,000 rows. View complete results in Report Details.

Reformat the final_assignments_qa to look like the final_assignments table, filling in any missing values with a placeholder of the appropriate data type.

2. Reformat the Data

| | item_id | test_assignment | test_number | test_start_date |
	item_id	test_assignment	test_number	test_start_date
1	1762	1	item_test_5	2013-01-05 00:00:00
2	423	1	item_test_1	2013-01-05 00:00:00
3	3090	0	item_test_3	2013-01-05 00:00:00

This table only shows the first 1,000 rows. View complete results in Report Details.

3. Compute Order Binary

| | test_assignment | num_of_items | items_ordered_30d |
	test_assignment	num_of_items	items_ordered_30d
1	Control	1130	386
2	Treatment	1068	363

Final Assignment

3a) Subquery

	item_id	test_assignment	test_number	test_start_date	created_at	order_binary_30d
	item_id	test_assignment	test_number	test_start_date	created_at	order_binary_30d
1	215	0	item_test_2	2015-03-14 00:00:00	2016-08-22 00:00:00	0
2	2756	1	item_test_2	2015-03-14 00:00:00	2017-05-18 00:00:00	0
3	2255	0	item_test_2	2015-03-14 00:00:00	2013-05-06 00:00:00	0

This table only shows the first 1,000 rows. View complete results in Report Details.
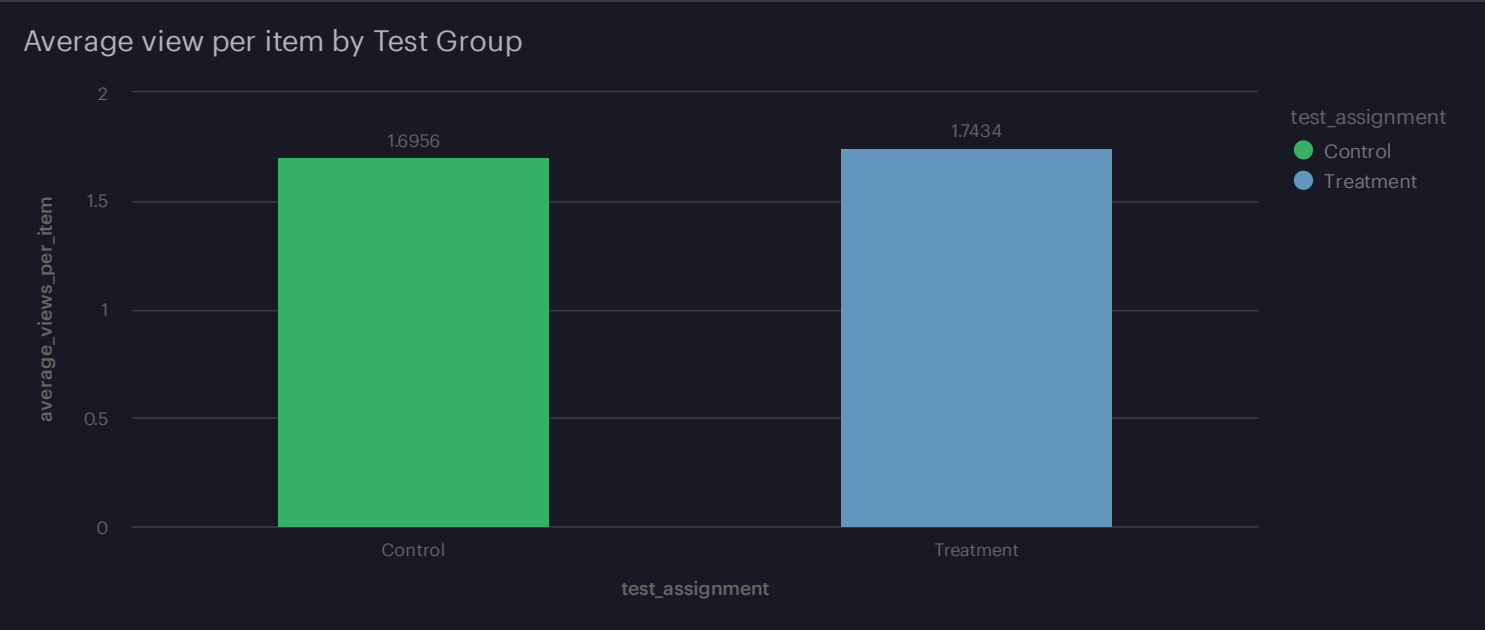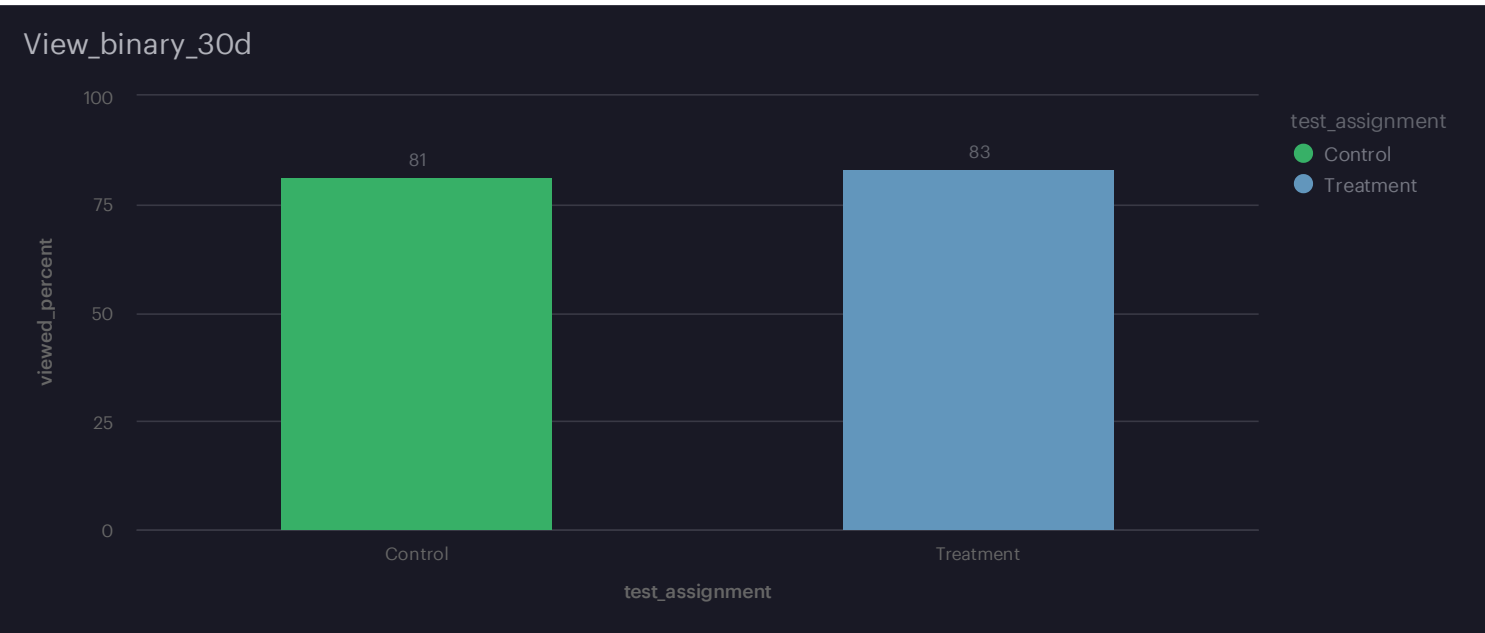
Order_binary_30d
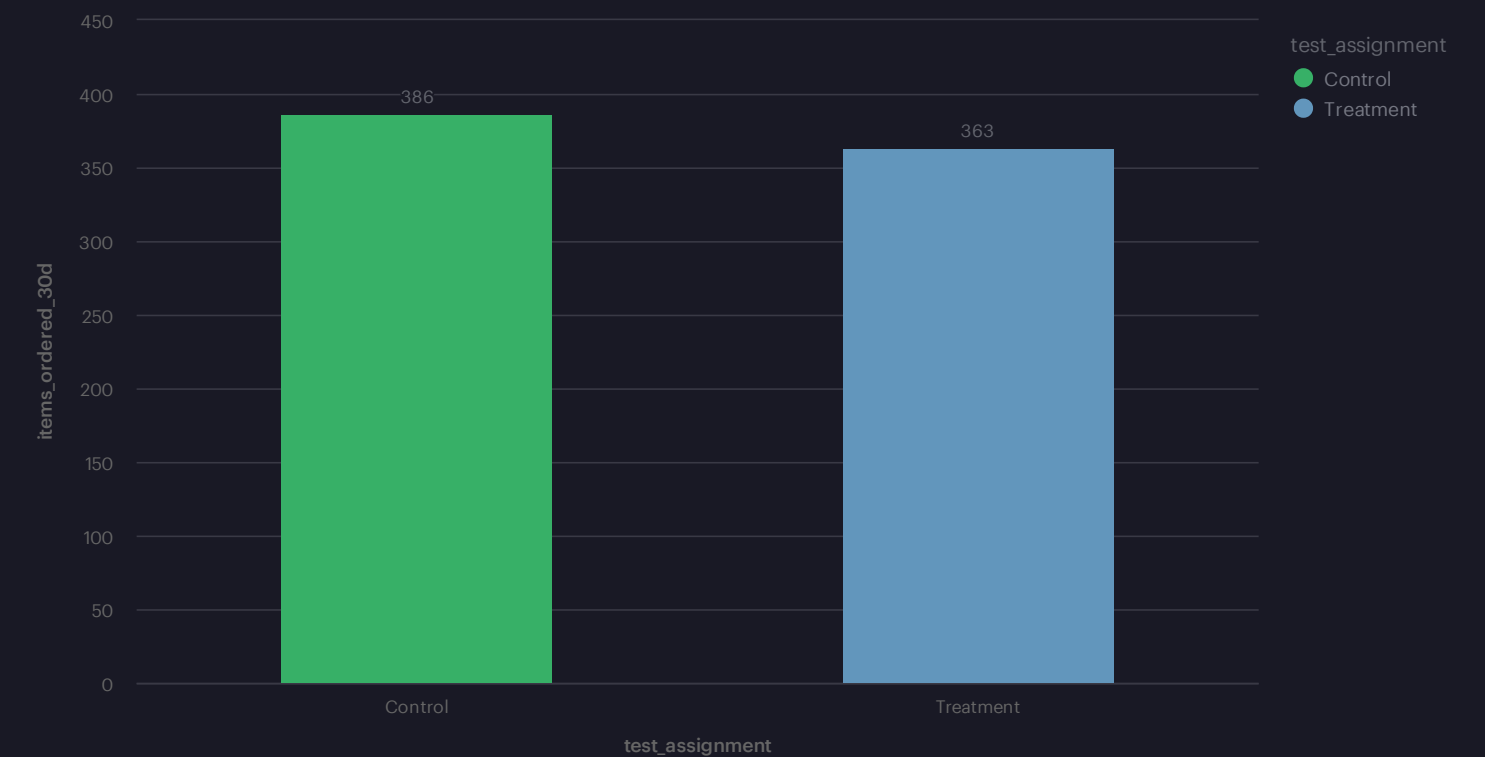
Computing lift and p-value for the 30 day order binary metric

We see a negative improvement in the success rate of -0.5% for the test_item_2 and its p-value is 0.97 which is very close to 1, so result of this a/b testing is statistically insignificant.

4. Compute View Item Metrics

	test_assignment	num_of_items	viewed_items	viewed_percent	views	average_views_per_item
1	Control	1130	918	81	1916	1.69557522124
2	Treatment	1068	890	83	1862	1.74344569288

Final Assignment

View_binary_30d

Average view per item by Test Group

Computing lift and p-value for the 30 day view binary metric

We see a positive improvement in the success rate of 2.3% for the test_item_2 and its p-value is 0.25 which is not so good since confidence interval is 95% so p value should be less than or equal to 0.05 for the results of this a/b testing to be statistically significant.