



WARBY PARKER

Learn SQL from Scratch

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1. Survey Funnel

Quiz Responses Drop Off Significantly Over Time

- In order to get familiar with WarbyParker data sets analyses were first conducted after getting an initial view of the quiz dataset
- Data structure consisted of user_id, question, and response – these then enabled a deep dive on quiz responses and their impact on purchasing behavior
- Ultimately only 54% of respondents answered all quiz questions which may impact sales
- Analyses reveal that customers may be dropping off early either after determining appropriate fit, or once a qualifying question around eyesight is asked which can be further examined by looking at purchasing behavior post quiz

Question	Total Responses (Survey Funnel)	Number of Customers Stopping at Each Question	Percent of Respondents Completing Each Question
1. What are you looking for?	500	25	100%
2. What's your fit?	475	95	95%
3. Which shapes do you like?	380	19	76%
4. Which colors do you like?	361	91	72%
5. When was your last eye exam?	270	270	54%

```
/*Explore Initial Dataset*/
```

```
SELECT *  
FROM survey LIMIT 10;
```

```
SELECT COUNT(DISTINCT user_id)  
FROM survey;
```

```
/*Survey Funnel*/
```

```
WITH QStoppedAt AS (  
    SELECT user_id, question, MAX(question) AS 'LastQAns'  
    FROM survey  
    GROUP BY user_id  
) ,  
QComplete AS (  
    SELECT user_id, question, COUNT(response) AS 'NumResponded'  
    FROM survey  
    GROUP BY question  
)  
SELECT QComplete.question, QComplete.NumResponded,  
COUNT(QStoppedAt.LastQAns) AS NumStoppedHere, ROUND((1.0 -  
(500.0 - QComplete.NumResponded) * 1.0 / 500.0), 2) AS  
completionPercent  
FROM QComplete  
LEFT JOIN QStoppedAt  
    ON (QComplete.question = QStoppedAt.question)  
GROUP BY LastQAns;
```

2. Customer Funnel + A/B testing

Significant differences in behaviors were seen across the 3 pair and 5 pair test groups

Customer Funnel	# of Customers
Quizzed	1000
Tried On	750
Purchased	495

Pairs Sent to be Tried On	# of Customers Taking Quiz	Try On Rate	Tried On After Quiz	Purchase Rate	# of Customer Purchasing
Did not Advance to Samples	250	100%	0	-	0
3 pairs	379	0%	379	53%	201
5 pairs	371	0%	371	79%	294

5 pair samples performed significantly better and should be used to increase overall customer purchasing/conversion rates

```
/*funnel + a/b test */
```

```
WITH purchases AS (  
  SELECT DISTINCT quiz.user_id, quiz.style AS 'quiz_style',  
    home_try_on.user_id IS NOT NULL AS 'is_home_try_on',  
    home_try_on.number_of_pairs,  
    purchase.user_id IS NOT NULL AS 'is_purchase',  
    purchase.style AS 'purchase_style',  
    purchase.product_id  
  FROM quiz  
  LEFT JOIN home_try_on  
    ON quiz.user_id = home_try_on.user_id  
  LEFT JOIN purchase  
    ON purchase.user_id = quiz.user_id  
  /*)  
  SELECT purchase_style, quiz_style, product_id, number_of_pairs,  
    COUNT(DISTINCT user_id) AS 'Quizzed?', SUM(is_home_try_on) AS  
    'Tried_On?', SUM(is_purchase) AS 'purchased?'  
  FROM purchases  
  GROUP BY purchase_style, product_id;*/  
)  
SELECT number_of_pairs, COUNT(DISTINCT user_id) AS 'Quizzed?',  
  SUM(is_home_try_on) AS 'Tried_On?', SUM(is_purchase) AS  
  'purchased?'  
FROM purchases  
GROUP BY number_of_pairs;
```