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Usage Funnels with Warby Parker

Learn SQL from Scratch

Araceli Hintermeister

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Table of Contents

Background and Goals

Research Objectives

- Prioritize the "jobs to be done" in Home Try-On Funnel
- Asses level of interest for Prospective Customers (Prospects)
- Analyze completion rates for Style Quiz
- Assess results of A/B Test for Home Try-On Stage

Response Rate to Style Quiz

During our study period, we saw the following response rates to our Style Quiz. Prospects are "giving up" at different points.

(See Appendix Question 2 for additional data)

Question	Responses
What are you looking for?	500
What's your fit?	475
Which shapes do you like?	380
Which colors do you like?	361
When was your last eye exam?	270

Completion Rate to Style Quiz

An analysis of completion rates per question shows us that Question 5 (*When was your last eye exam?*) has the lowest completion rate.

We hypothesize that Question 5 may require Prospects to provide information that is not readily available to them.

(See Appendix Question 3 for additional data)

Question	Completion Rate
What are you looking for?	100%
What's your fit?	95%
Which shapes do you like?	80%
Which colors do you like?	95%
When was your last eye exam?	70%

Popular Fits

Through the quiz we learned the style, fit, shape, and color preferences of our Prospects. This slide showcases the responses for fit. **Narrow was the most popular fit.**

(See Appendix Question 6 - Analysis 4 for additional data)

Fit	Count
Narrow	408
Medium	305
Wide	198
I'm not sure. Let's skip it.	89

Popular Styles

Through the quiz we learned the style, fit, shape, and color preferences of our Prospects. This slide showcases the responses for style. **Women's Style was the most popular style.**

(See Appendix Question 6 - Analysis 4 for additional data)

Styles	Count
Women's Styles	469
Men's Styles	432
I'm not sure. Let's skip it.	99

Popular Shapes

Through the quiz we learned the style, fit, shape, and color preferences of our Prospects. This slide showcases the responses for shape. **Rectangular was the most popular shape.**

(See Appendix Question 6 - Analysis 4 for additional data)

Shapes	Count
Rectangular	397
Square	326
Round	180
No Preference	97

Popular Colors

Through the quiz we learned the style, fit, shape, and color preferences of our Prospects. This slide showcases the responses for color. **Tortoise was the most popular style.**

(See Appendix Question 6 - Analysis 4 for additional data)

Colors	Count
Tortoise	292
Black	280
Crystal	210
Neutral	114
Two-Tone	104

Home Try-On A/B Testing

Prospects who visited our website during our study period were also part of an A/B Test conducted by the Marketing Team. During this test, customers received different home try-on kits.

- 50% of the users received **3 pairs** to try on
- 50% of the users received **5 pairs** to try on

Home Try-On A/B Testing

During this A/B Testing, we learned that Prospects who received 5 pairs of glasses were more likely to complete the purchase.

(See Appendix Question 6 – Analysis 3 for additional data)

Home Try-On Kit	Likelihood of Purchase
3 Pairs	53%
5 Pairs	79%

Home Try On & Purchase Conversion

During our study period, 75% of Prospects went from the quiz phase to the home try-on phase. Sixty six percent of Prospects went from the home try-on phase to completing a purchase.

(See Appendix Question 6 – Analysis 1 & 2 for additional data)

Num_checkout	Num_purchase	Checkout Conversion	Checkout Purchase
750	495	0.75	0.66

Recommendations – Jobs to be Done

A/B Testing on Quiz Questions

An analysis of completion rates per question shows us that Question 5 (*When was your last eye exam?*) has the lowest completion rate. We hypothesize that Question 5 may require Prospects to provide information that is not readily available to them.

Recommendation: Omit or change Question 5 and conduct A/B testing to conclude if changing the question will increase completion rates.

Implement 5 pair home try-on kits

During this A/B Testing, we learned that Prospects who received 5 pairs of glasses were more likely to complete the purchase. 79% of these prospects completed a purchase.

Recommendation: Implement 5 pair home try-on kits.

Focus Groups for Conversion

During our study period, 75% of Prospects went from the quiz phase to the home try-on phase. Sixty six percent of Prospects went from the home try-on phase to completing a purchase.

Recommendation: Focus groups could be conducted to better understand why there is a lower conversion rate between the home try-on and purchase phase.

Develop Marketing Personas & Campaigns

Our study period collected a wealth of information concerning our Prospects preferences in style, fit, shape, and color. This information could be helpful in developing marketing personas and campaigns.

Recommendation: Use information provided in quiz analysis to create marketing personas and campaigns.

Appendix

Question 1

To help users find their perfect frame, Warby Parker has a Style Quiz that has the following questions:
- "What are you looking for?"
- "What's your fit?"
- "Which shapes do you like?"
- "Which colors do you like?"
- "When was your last eye exam?"

The users' responses are stored in a table called survey.
Select all columns from the first 10 rows.
What columns does the table have?

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

Answer:
- question
- user_id
- response

Question 2

Users will "give up" at different points in the survey. Let's analyze how many users move from Question 1 to Question 2, etc.

Create a quiz funnel using the GROUP BY command.
What is the number of responses for each question?

```
SELECT question,
    COUNT(DISTINCT user_id)
FROM survey
GROUP BY question;
```

Answer:
1. What are you looking for? – 500 responses
2. What's your fit? – 475 responses
3. Which shapes do you like? – 380 responses
4. Which colors do you like? – 361 responses
5. When was your last eye exam? – 270 responses

Question 3

Using a spreadsheet program like Excel or Google Sheets, calculate the percentage of users who answer each question.:

Which question(s) of the quiz have a lower completion rates?
What do you think is the reason?

```
/* No queries
```

Answer Question 3.a:
Question 1 Completion Rate – 100%
Question 2 Completion Rate – 95%
Question 3 Completion Rate – 80%
Question 4 Completion Rate – 95%
Question 5 Completion Rate – 70%
Question 5 has the lowest completion rate.

Answer Question 3.b:
It is possible that customers do not have the information necessary to complete Question 5 of the quiz and may either move away from their computers or choose not to complete the quiz.

Question 4

What are the column names?	SELECT * FROM quiz LIMIT 5; SELECT * FROM home_try_on LIMIT 5; SELECT * FROM purchase LIMIT 5;

Answer:
- quiz table contains five columns named user_id, style, fit, shape, color .
- home_try_on contains three columns named user_id, number_of_pairs, address .
- purchase contains six columns named user_id, product_id, style, model_name, color, price .

Question 5

Use a LEFT JOIN to combine the three tables, starting with the top of the funnel (browse) and ending with the bottom of the funnel (purchase).

```
SELECT DISTINCT q.user_id,
     h.user_id IS NOT NULL AS
'is_home_try_on',
     h.number_of_pairs,
     p.user_id IS NOT NULL AS
'is_purchase'
FROM quiz q
LEFT JOIN home_try_on h
     ON q.user_id = h.user_id
LEFT JOIN purchase p
     ON p.user_id = q.user_id
LIMIT 10;
```

Question 6 – Analysis 1

Calculate overall conversion rates by aggregating across all rows.

Answer:
Conversion from quiz → home_try_on is 75%.
Conversion from home_try_on → purchase is 66%.

```
WITH funnels AS (
  SELECT DISTINCT q.user_id,
    h.user_id IS NOT NULL AS
'is_home_try_on',
    h.number_of_pairs,
    p.user_id IS NOT NULL AS
'is_purchase' FROM quiz q
LEFT JOIN home_try_on h
    ON q.user_id = h.user_id
LEFT JOIN purchase p
    ON p.user_id = q.user_id)
SELECT COUNT(*) AS 'user_id',
        SUM(is_home_try_on) AS
'num_checkout',
  SUM(is_purchase) AS 'num_purchase',
  1.0 * SUM(is_home_try_on) /
COUNT(user_id), 1.0 * SUM(is_purchase) /
SUM(is_home_try_on)
FROM funnels;
```

Question 6 – Analysis 2

Compare conversion
from quiz→home_try_on and home_try_on→purchase.

Answer:
Conversion from quiz ➔ home_try_on is 75%.
Conversion from home_try_on ➔ purchase is 66%.

```sql
WITH funnels AS (
  SELECT DISTINCT q.user_id,
    h.user_id IS NOT NULL AS
'is_home_try_on',
    h.number_of_pairs,
    p.user_id IS NOT NULL AS 'is_purchase'
FROM quiz q
LEFT JOIN home_try_on h
    ON q.user_id = h.user_id
LEFT JOIN purchase p
    ON p.user_id = q.user_id)
SELECT COUNT(*) AS 'user_id',
        SUM(is_home_try_on) AS
'num_checkout',
  SUM(is_purchase) AS 'num_purchase',
  1.0 * SUM(is_home_try_on) /
COUNT(user_id), 1.0 * SUM(is_purchase) /
SUM(is_home_try_on)
FROM funnels;
```

Question 6 – Analysis 3

Calculate the difference in purchase rates between customers who had 3 number_of_pairs with ones who had 5.

Answer:

Out of 379 Prospects who received 3 pairs in their home try-on kit, 201 purchased a pair. Approximately 53% completed a purchase.

Out of 371 Prospects who received 3 pairs in their home try-on kit, 294 purchased a pair. Approximately 79% completed a purchase.

The 5 pair home try-on kits had the most successful purchase conversion.

```
SELECT number_of_pairs,
SUM(is_home_try_on) AS
'is_home_try_on', SUM(is_purchase)
AS 'is_purchase'
FROM (SELECT DISTINCT q.user_id,
     h.user_id IS NOT NULL AS
'is_home_try_on',
     h.number_of_pairs,
     p.user_id IS NOT NULL AS
'is_purchase'
FROM quiz q
LEFT JOIN home_try_on h
     ON q.user_id = h.user_id
LEFT JOIN purchase p
     ON p.user_id = q.user_id)
GROUP BY 1;
```

Question 6 – Analysis 4

Most common results of the style quiz.

Answer:
The most common fit was narrow.
The most common style was women's style.
The most common shape was rectangular.
The most common color was tortoise.

```
SELECT fit,
    COUNT(DISTINCT user_id)
FROM quiz
GROUP BY fit;


SELECT style,
    COUNT(DISTINCT user_id)
FROM quiz
GROUP BY style;


SELECT shape,
    COUNT(DISTINCT user_id)
FROM quiz
GROUP BY shape;


SELECT color,
    COUNT(DISTINCT user_id)
FROM quiz
GROUP BY color;
```

Question 6 – Analysis 5

Most common types of purchase made.

```
SELECT *,
    COUNT(DISTINCT user_id)
FROM purchase
GROUP BY product_id;
```

Answer:
The most common type of purchase is Men's Style Dawes in Driftwood Fade. The second most common type of purchase is Women's Style Eugene in Narrow and Rose Tortoise.