



Warby Parker marketing funnel

Learn SQL from Scratch

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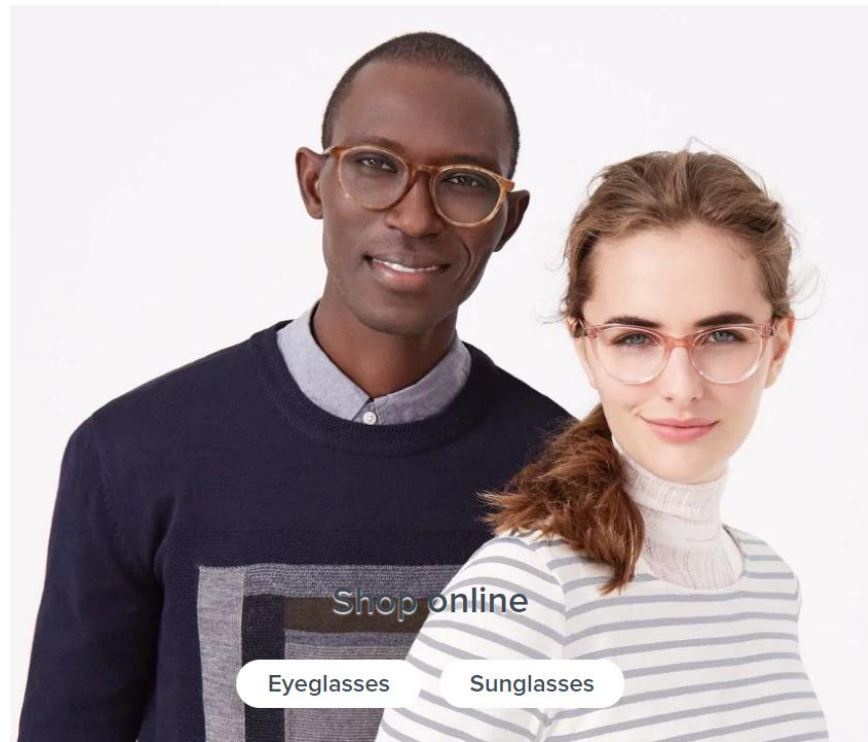
1. Background : Warby Parker's survey and home trial

Warby Parker's survey and marketing funnel

Warby Parker is a transformative lifestyle brand with a lofty objective: to offer designer eyewear at a revolutionary price while leading the way for socially conscious businesses.

The marketing team would like to measure the effectiveness of Warby Parker's online survey that helps customers narrow down trial preferences, lead to home trials and eventually a purchase.

We will look at the Quiz funnel to understand **user drop-off** and the Home Try-On funnel to understand the **impact of 3 pair vs 5 pair trials**.



2. Quiz Funnel

2.1 Style Quiz Funnel

To help users find their perfect frame, Warby Parker has a [Style Quiz](#) that has the following questions:

1. "What are you looking for?"
2. "What's your fit?"
3. "Which shapes do you like?"
4. "Which colors do you like?"
5. "When was your last eye exam?"

The users' responses are captured in a survey data table called "survey", and the columns include:

- question
- user_id
- response.

SQL Code:

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

2.1 Style Quiz data table - sample

Question	User_id	Response
1. What are you looking for?	005e7f99-d48c-4fce-b605-10506c85aaf7	Women's Styles
2. What's your fit?	005e7f99-d48c-4fce-b605-10506c85aaf7	Medium
3. Which shapes do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Round
4. Which colors do you like?	00a556ed-f13e-4c67-8704-27e3573684cd	Two-Tone
1. What are you looking for?	00a556ed-f13e-4c67-8704-27e3573684cd	I'm not sure. Let's skip it.
2. What's your fit?	00a556ed-f13e-4c67-8704-27e3573684cd	Narrow
5. When was your last eye exam?	00a556ed-f13e-4c67-8704-27e3573684cd	<1 Year
3. Which shapes do you like?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	Square
5. When was your last eye exam?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	<1 Year
2. What's your fit?	00bf9d63-0999-43a3-9e5b-9c372e6890d2	Medium

2.2 Quiz funnel

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?

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

SQL Code:

```
SELECT question,  
COUNT(response)  
FROM survey  
GROUP BY 1;
```


2.3 Quiz Funnel (1 of 2)

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?*

Responses per question reveal when the users dropped off in answering survey questions. Based on this funnel result, we have identified that only 475 out of 500 respondents continued from question 1 to 2 (or 95%). The other completion rates are listed below.

Question	Responses	Completion rate % (compared to previous question)
1. What are you looking for?	500	-
2. What's your fit?	475	95%
3. Which shapes do you like?	380	80%
4. Which colors do you like?	361	95%
5. When was your last eye exam?	270	75%

SQL Code:

```
SELECT question,  
COUNT(response)  
FROM survey  
GROUP BY 1;
```

2.3 Quiz funnel (2 of 2)

Questions 5 and 3, respectively, have low completion rates.

- **Drop-off at question 5** could be due to survey question fatigue and inability for users to recall when their last eye exam was
- **Drop-off at question 3** could be due to users having many different options, causing hesitation in responding or wanting to come back later

Potential ways to increase conversion is to include a short text at the bottom to encourage users to complete the question, such as “We’ll take your best guess!” to Q5 and “You can always choose different styles later” for Q3

Question	Responses	Completion rate % (compared to previous question)
1. What are you looking for?	500	-
2. What's your fit?	475	95%
3. Which shapes do you like?	380	80%
4. Which colors do you like?	361	95%
5. When was your last eye exam?	270	75%

SQL Code:

```
SELECT question,  
COUNT(response)  
FROM survey  
GROUP BY 1;
```

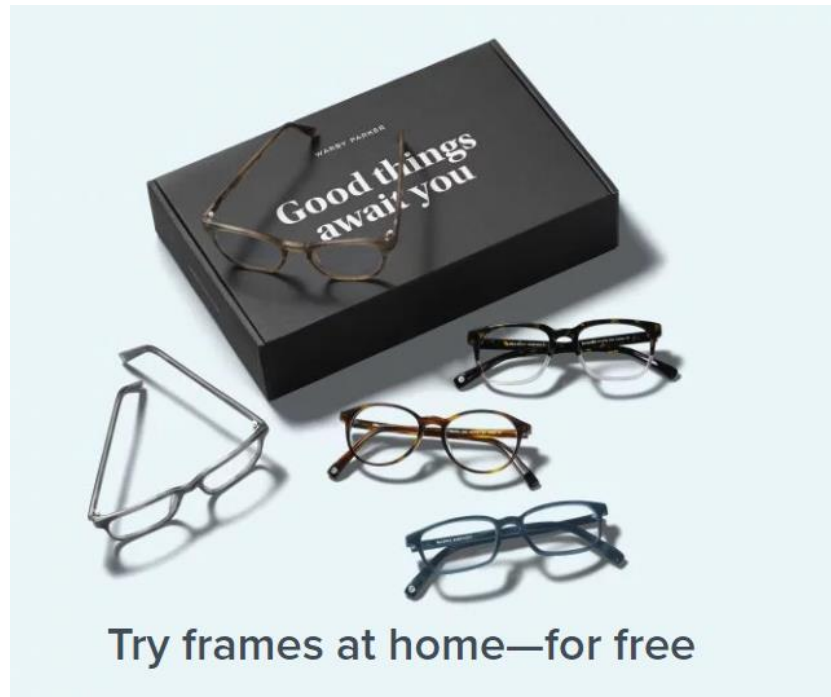
3. Home Try-On A/B Test

3.1 A/B testing for home try-on

Customers that have taken the quiz can now try on different glasses at home. We will now conduct an A/B test on the conversion rate of users who try on 3 pairs vs 5 pairs.

In our sample data set:

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



Try frames at home—for free

3.2 Database schema for Quiz, Home_Try_On, Purchase

The following data tables were combined to create the Home Try-On funnel. Examine the first five rows of each table. What are the column names?

Quiz

- User_id
- Style
- Fit
- Shape
- Color

Home_try_on

- User_id
- Number_of_pairs
- Address

Purchase

- User_id
- Product_id
- Style
- Model_name
- Color
- Price

SQL Code:

```
SELECT *  
FROM quiz  
LIMIT 5;
```

```
SELECT *  
FROM home_try_on  
LIMIT 5;
```

```
SELECT *  
FROM purchase  
LIMIT 5;
```

3.3 Database schema for Quiz, Home_Try_On, Purchase

The following data tables were combined to create the Home Try-On funnel:

Quiz

- User_id
- Style
- Fit
- Shape
- Color

Home_try_on

- User_id
- Number_of_pairs
- Address

Purchase

- User_id
- Product_id
- Style
- Model_name
- Color
- Price



User_id	is_home_try_on	number_of_pairs	is_purchased
4e8118dc-bb3d-49bf-85fc-cca8d83232ac	1	3 pairs	0
291f1cca-e507-48be-b063-002b14906468	1	3 pairs	1
75122300-0736-4087-b6d8-c0c5373a1a04	0		0
75bc6ebd-40cd-4e1d-a301-27ddd93b12e2	1	5 pairs	0
ce965c4d-7a2b-4db6-9847-601747fa7812	1	3 pairs	1
28867d12-27a6-4e6a-a5fb-8bb5440117ae	1	5 pairs	1
5a7a7e13-fbcf-46e4-9093-79799649d6c5	0		0
0143cb8b-bb81-4916-9750-ce956c9f9bd9	0		0
a4ccc1b3-cbb6-449c-b7a5-03af42c97433	1	5 pairs	0
b1dded76-cd60-4222-82cb-f6d464104298	1	3 pairs	0

SQL Code:

```
SELECT 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_purchased'
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;
```

3.4 Analysis from the Home Try-On data table

Once we have the data in this format, we can analyze it in several ways:

- We can calculate overall conversion rates by aggregating across all rows.
- We can compare conversion from quiz→home_try_on: **75%** and home_try_on→purchase: **66%**.
- We can calculate the difference in purchase rates between customers who had 3 number_of_pairs with ones who had 5
 - 3 pairs purchase rate: **40.6%**
 - 5 pairs purchase rate: **59.4%**

What are some actionable insights for Warby Parker? (see next page)

Data calculated from Home Try-On Analysis

Description	Units	Stats
Total that were quizzed	# of people	1000
Total that did home trial	# of people	750
Total that did home trial - 3 pairs	# of people	379
Total that did home trial - 5 pairs	# of people	371
Total that purchased	# of people	495
Total converted from 3 pair trial to purchase	# of people	201
Total converted from 5 pair trial to purchase	# of people	294
Total conversion rate from quiz to purchase	%	49.5%
Conversion from quiz to home trial	%	75.0%
Conversion from home trial to purchase	%	66.0%
Conversion rate from 3 pairs trial to purchase	%	40.6%
Conversion rate from 5 pairs trial to purchase	%	59.4%

Summary: Quiz Funnel and Home Try-On A/B Test

Quiz Funnel

- Overall, the Warby Parker's online survey has a good completion rate with users are navigating through the questions at 75-95% completion in each stage
- Areas of improvement are in questions 3 and 5 ("Which shapes do you like?" and "When was your last eye exam?"), which have lower completion rates
- **Consideration for marketing and website team:** Possible improvement could be adding "nudge" texts in the quiz, such as "We'll take your best guess!" for the eye exam question. Q5 is especially critical to make sure it leads to home trial

Home Try-On A/B Test

- When comparing home trials with 3 pairs vs 5 pairs, **5 pairs had a higher conversion rate to purchase of 59.4%**, 8.8 pts higher than with 3 pairs
- **Implication to marketing and operations:** Marketing should further explore whether users want a default of 5 pairs or would like to have an option of 3 pairs. Operations should understand cost and process implications of switching to shipping 5 pairs.