# Warby Parker's Marketing Funnels

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## 1. Get Familiar with Warby Parker

- Let's take a look at the data on the Survey table :
  - Columns are (1)
     question, (2) user\_id
     and (3) response

```
1 ---Select all columns from first 10 rows of survey table
2 SELECT *
3 FROM survey
4 LIMIT 10;
```

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. Quiz Funnel

- Let's create a quiz funnel from the survey dataset to figure out when users "gave up" while completing the survey.
  - As the survey progresses, more and more users give up.
- Let's take a look at the percent completion for each question.
  - Questions 3 and 5 have the lowest completion rates (80% and 74.79% respectively).
  - The users might be unsure of different glasses shapes for question 3. It might be helpful to include images of each lense type.
  - Users might be uncomfortable answering personal questions like question 5.

```
6 ---Create a funnel of survey to see
   when users "give up"
7 SELECT question,
8   COUNT(DISTINCT user_id) AS 'User
   Count'
9  FROM survey
10  GROUP BY question;
11
```

question	User Count
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

Question	Count	Percent Completion
1. What are you looking for?	500	100.00%
2. What's your fit?	475	95.00%
3. Which shapes do you like?	380	80.00%
4. Which colors do you like?	361	95.00%
5. When was your last eye exam?	270	74.79%

## 3. A/B Testing with Home Try-On Funnel

- Let's first look at the data spread across the quiz, home\_try\_on, and purchase tables.
  - The "quiz" table contains columns (1) user\_id, (2) style (men's or women's), (3) fit, (4) shape, and (5) color.
  - The "home\_try\_on"
    table contains columns
    (1) user\_id, (2)
    number\_of\_pairs, (3)
    address
  - The "purchase" table contains columns (1) user\_id, (2) product\_id, (3) style, (4) model\_name, (5) color, (5) price

```
---Examine first five rows of the quiz,
home_try_on and purchase tables

SELECT *
FROM quiz
LIMIT 5;

FROM home_try_on
LIMIT 5;

SELECT *
FROM purchase
LIMIT 5;
```

user_id		style	fit	shape co	lor
4e8118dc-bb3d-49bf-85fc-cca8d83232ac Won		men's Styles	Medium F	Rectangular Tor	toise
291f1cca-e507-48be-b063-002b1490646	68 Wo	men's Styles	Narrow	Round BI	ack
75122300-0736-4087-b6d8-c0c5373a1a	04 Wo	men's Styles	Wide F	Rectangular Two	-Tone
75bc6ebd-40cd-4e1d-a301-27ddd93b12	e2 Wo	men's Styles	Narrow	Square Two	-Tone
ce965c4d-7a2b-4db6-9847-601747fa783	12 Wo	men's Styles	Wide F	Rectangular Bl	ack
user_id		number_of_pairs		address	
d8addd87-3217-4429-9a01-d56d681	11da7	5 pairs		145 New York 9a	
f52b07c8-abe4-4f4a-9d39-ba9fc9a1	.84cc	5 pairs		383 Madison Ave	
8ba0d2d5-1a31-403e-9fa5-79540f8477f9		5 pairs		287 Pell St	
4e71850e-8bbf-4e6b-accc-49a7bb46c586		3 pairs		347 Madison Square N	
3bc8f97f-2336-4dab-bd86-e391609dab97		5 pairs		182 Cornelia St	
user_id	product_id	style	model_name	color	price
00a9dd17-36c8-430c-9d76-df49d4197dcf	8	Women's Styles	Lucy	Jet Black	150
00e15fe0-c86f-4818-9c63-3422211baa97	7	Women's Styles	Lucy	Elderflower Crystal	150
017506f7-aba1-4b9d-8b7b-f4426e71b8ca	4	Men's Styles	Dawes	Jet Black	150
0176bfb3-9c51-4b1c-b593-87edab3c54cb	10	Women's Styles	Eugene Narrow	Rosewood Tortoise	95
01fdf106-f73c-4d3f-a036-2f3e2ab1ce06	8	Women's Styles	Lucy	Jet Black	150

## 3. A/B Testing with Home Try-On Funnel

- Let's create a funnel from quiz → home\_try\_on → purchase and look at which steps users gave up
  - 1,000 users took the quiz,
     750 users did a home try
     on and 495 users made a
     purchase
  - 75% of users who to the quiz moved onto the home try on step and 66% of users who did the home try on made a purchase
  - The home try on to purchase ratio is smaller, suggesting that Warby Parker should provide an incentive to purchase like discounts or a better variety of frames. Let's explore these options...

```
WITH funnel 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 AS Q
  LEFT JOIN home_try_on AS H
  ON Q.user_id = H.user_id
  LEFT JOIN purchase AS P
  ON P.user_id = Q.user_id)
SELECT COUNT(*) AS 'num_quiz',
SUM(is_home_try_on) AS 'num_home_try_on',
SUM(is_purchase) AS 'num_purchase',
1.0*SUM(is_home_try_on) / COUNT(user_id) AS
'quiz_to_home_try_on',
1.0*SUM(is_purchase) / SUM(is_home_try_on) AS
'home_try_on_to_purchase'
FROM funnel;
```

num_quiz	num_home_try_on	num_purchase	quiz_to_home_try_on	home_try_on_to_purchase
1000	750	495	0.75	0.66

## 3. A/B Testing with Home Try-On Funnel

- Let's use the funnel to explore if the number of pairs of glasses received during home try on has any influence on the rate of purchase
  - The purchase rate for users who received 3 pairs is 53% and the purchase rate for users who received 5 pairs is 79%.
  - Warby Parker should send users 5 pairs of frames in order to increase sales

```
WITH funnel 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 AS 0
 LEFT JOIN home_try_on AS H
  ON Q.user_id = H.user_id
 LEFT JOIN purchase AS P
   ON P.user_id = Q.user_id)
SELECT number_of_pairs, ROUND(1.0 *
SUM(is_purchase) / COUNT(*),2) AS
'purchase_rate'
FROM funnel
GROUP BY number_of_pairs;
```

number_of_pairs	purchase_rate
Ø	0.0
3 pairs	0.53
5 pairs	0.79

## 4. Other Insights - Popular Price Points

- Let's look at popular price points.
  - Frames priced at \$95
     account for 52.7% of
     sales and frames priced
     at \$150 account for 39%.
  - This suggests that customers might be most comfortable purchasing frames at a \$95 price point, but the popularity of particular models will influence the number of purchases at each price point.

84	Find the number of purchases made at
	each price point
85	SELECT price, COUNT(*) AS 'Count'
	FROM purchase
87	GROUP BY price
88	ORDER BY price ASC;

price	Count
50	41
95	261
150	193



## 4. Other Insights - Popular Models

- Which models are most popular based on purchases?
  - Eugene Narrow is the most popular, followed by Dawes and Brady. These three styles account for over 60% of purchases.
  - Warby Parker should advertise these models more or encourage users to add these models to their home try-ons.

92	SELECT model_name, COUNT(*) AS 'Count	•
93	FROM purchase	
94	GROUP BY model_name;	

model_name	Count
Brady	95
Dawes	107
Eugene Narrow	116
Lucy	86
Monocle	41
Olive	50

