



Capstone: Usage Funnels

Learn SQL from Scratch

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1. Quiz Drop-Off

1.1 Quiz Drop-Off: What columns does the survey table have?

The survey table has three columns.

- Question
- User_id
- Response

```
Query: select * from survey LIMIT 10;
```

1.2 Quiz Drop-Off: What is the number of responses for each question?

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

Query: select question, COUNT (DISTINCT user_id) AS respondents from survey GROUP BY question;

1.3 Quiz Drop-Off: Which questions of the quiz have a lower completion rate? What could be the reason?

- Largest drop-off occurs on Question 3 (“Which shapes do you like?”) and question 5 (“When was your last eye exam?”)
- Desired shapes can be difficult to identify. Might make sense to simply ask about 1-3 options and ask which looks best.
 - Many might not remember the exact date of last eye exam. Other options might include asking this at another time or giving a range of options (e.g. last 5 years, last 10 years.)

respondents	question	Completion Rate (% of total respondents)
500	1. What are you looking for?	
475	2. What's your fit?	95.0%
380	3. Which shapes do you like?	76.0%
361	4. Which colors do you like?	72.2%
270	5. When was your last eye exam?	54.0%

Query: select COUNT (DISTINCT user_id) AS respondents, question from survey GROUP BY question;

2. Home Try-On Funnel

2.1 Home Try-On Funnel: What are the column names?

The columns are distributed as follows:

- **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

```
Query: select * from quiz LIMIT 5; select * from home_try_on LIMIT 5; select * from purchase LIMIT 5;
```


2.2 Home Try-On Funnel: Are users who get more pairs to try on more likely to buy?

Yes - according to this data, users who get more pairs to try on at home are more likely to buy.

- Users who received 5 pairs (49.5% of total) account for over 59% of those who purchased shoes.

# of Pairs Received	# of Users	# of Users Who Purchase	Purchases as % of Total
3 pairs	379	201	40.6%
5 pairs	371	294	59.4%
Total	750	495	100.0%

```
Query: select number_of_pairs, count (distinct home_try_on.User_id) as number_of_users, count(distinct purchase.user_id) as number_of_users_purchasing from home_try_on LEFT JOIN purchase.user_id = home_try_on.user_id GROUP BY 1;
```

3. Analysis

3.1 Analysis: What are the overall conversion rates?

25% of total quiz takers fall out in the home try on stage, and another 25.5% fall off in the purchase stage. 49.5% of total users who take the quiz wind up purchasing.

quiz_users	home_try_on_users	purchase_users
1000	750	495
100.0%	75.0%	49.5%

Query: select count(distinct quiz.user_id) as quiz_users, count (distinct home_try_on.user_id) as home_try_on_users, count (distinct purchase.user_id) as purchase_users from quiz LEFT JOIN home_try_on on home_try_on.user_id = quiz.user_id LEFT JOIN purchase on purchase.user_id = quiz.user_id;

3.2 Analysis: What are the most common results in style quiz?

- In 'fit', 408 out of 1000 users prefer 'narrow' fits (40.8% of total users), the most common response, followed by 'medium' (30.5%).
- In 'shape', 397 out of 1000 users prefer 'rectangular' shapes (39.7% of total users), the most common response, followed by 'square' (32.6%).
- In 'color', 292 out of 1000 users prefer 'tortoise' colors (29.2%), the most common response, followed by 'black' (28%).

Query: select count (distinct user_id) as number_of_users, fit from quiz GROUP BY 2;

select count (distinct user_id) as number_of_users, shape from quiz GROUP BY 2;

select count (distinct user_id) as number_of_users, color from quiz GROUP BY 2;

3.3 Analysis: What is the most common type of purchase made?

“Eugene Narrow” is the most common purchase, with 116 users out of 495 total purchasing this model.

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

Query: select count (distinct user_id) as number_of_users, model_name from purchase GROUP BY 2;

4. Actionable Insights

Actionable Insights

1. **Quiz Funnel**
 - Consider modifying questions to reduce drop-off (e.g. asking about last test in a different format, or eliminating questions)
2. **Home Try-On Funnel**
 - Consider sending 5 pairs to a wider base of users to boost purchase rates
3. **Purchase Funnel**
 - Consider adjusting inventory, if necessary, to support more popular skews (e.g. Eugene Narrow)