

# Data storytelling

COMMUNICATING DATA INSIGHTS

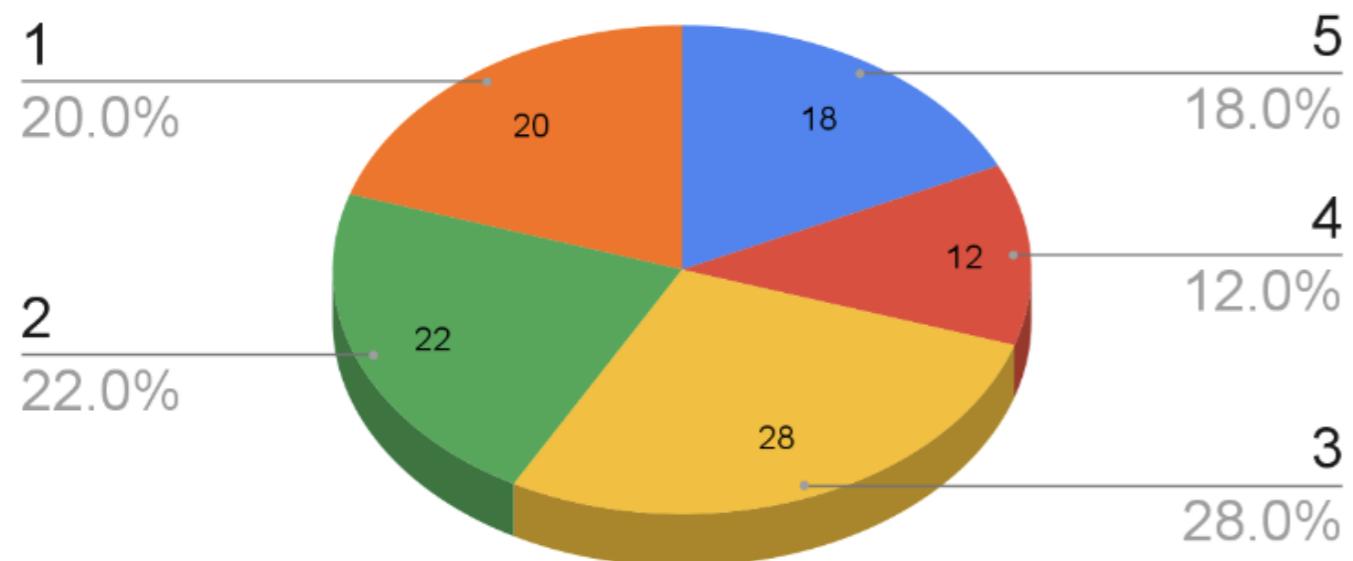


**Joe Franklin**

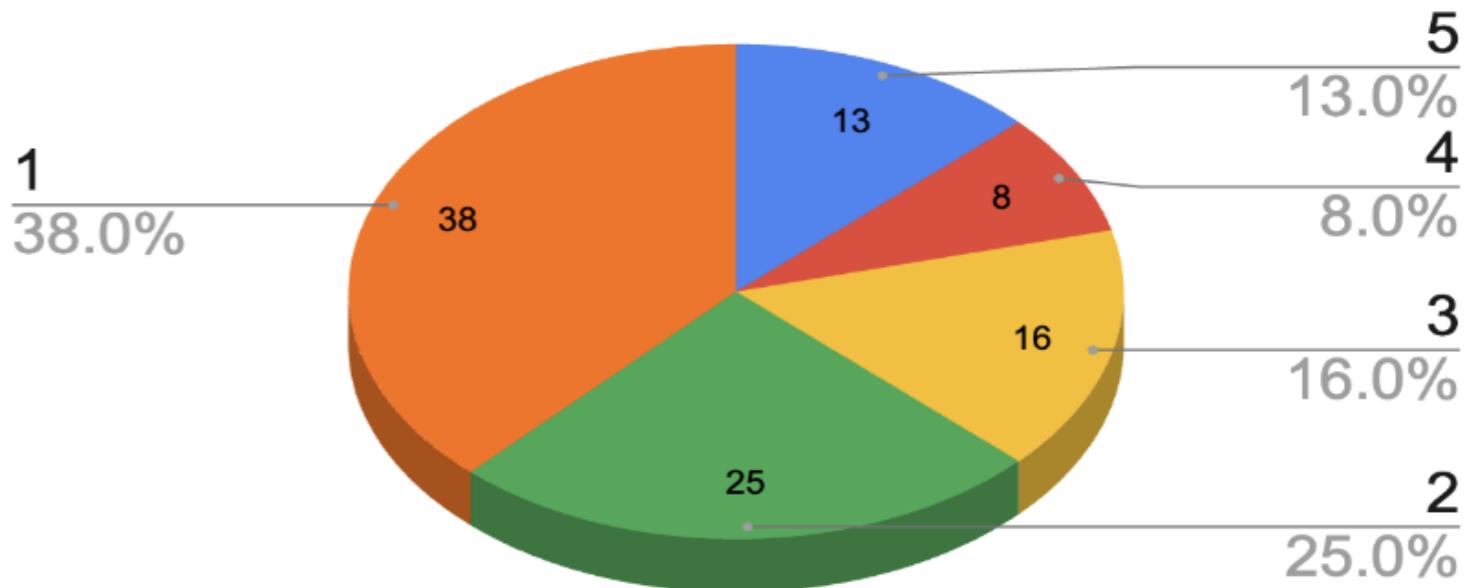
Senior Curriculum Manager, DataCamp

# A picture tells a thousand words?

Patient pre-treatment pain index

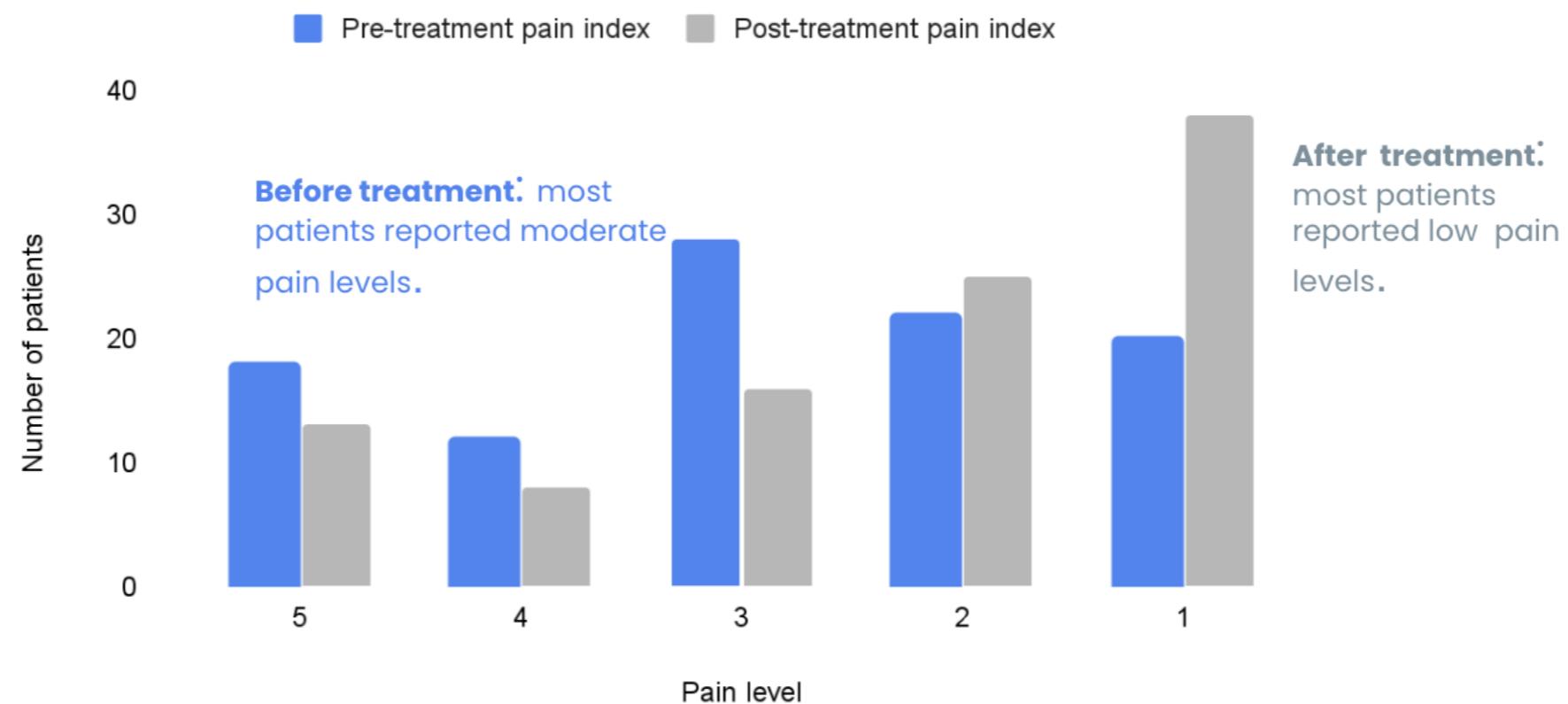


Patient post-treatment pain index



# A story tells a single insight

Pain reduction treatment is a success.

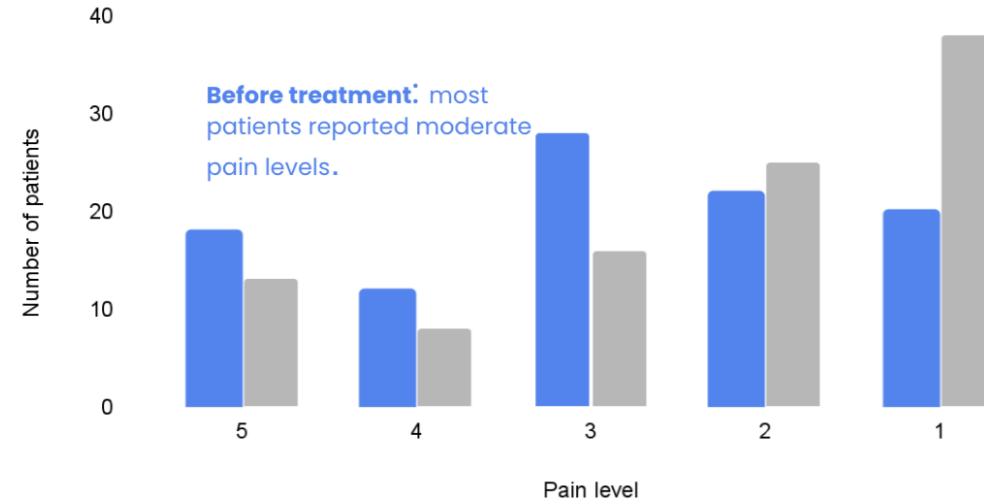


Chronic pain patients received an experimental treatment regimen resulting in a large improvement in reported pain levels. This treatment should become the new standard for pain management among chronic patients.

# Spot the difference

Pain reduction treatment is a success.

Pre-treatment pain index Post-treatment pain index

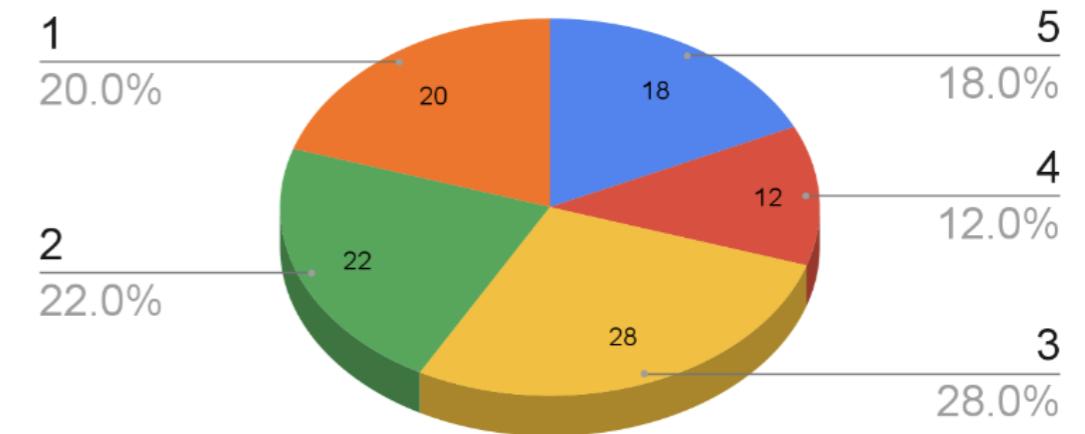


Before treatment: most patients reported moderate pain levels.

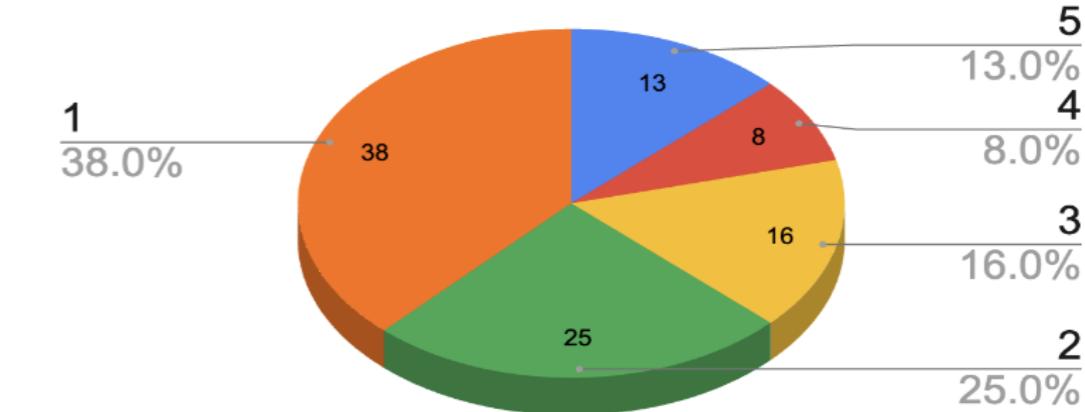
After treatment: most patients reported low pain levels.

Chronic pain patients received an experimental treatment regimen resulting in a large improvement in reported pain levels. This treatment should become the new standard for pain management among chronic patients.

Patient pre-treatment pain index



Patient post-treatment pain index



# Why?

## Data story distinctions

- Easier to understand
- Inspire action
- Retain information

Pair visualizations with written communication



# Engagement

Stories increase engagement over raw data.



Method	Donation amount
Data only	\$1.14
Data story	\$2.38

<sup>1</sup> Small, D. A., Loewenstein, G., & Slovic, P. (2007). Sympathy and callousness: The impact of deliberative thought on donations to identifiable and statistical victims.

# Sticky situation



**Remembering individual numbers is hard**

**Retaining the impact of stories is much easier**

<sup>1</sup> Heath, C., & Heath, D. (2010). *Made to stick: Why some ideas survive and others die.*

# **Let's practice!**

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# Keys to a good story

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# Building a definition



Challenging definition without universal consensus.

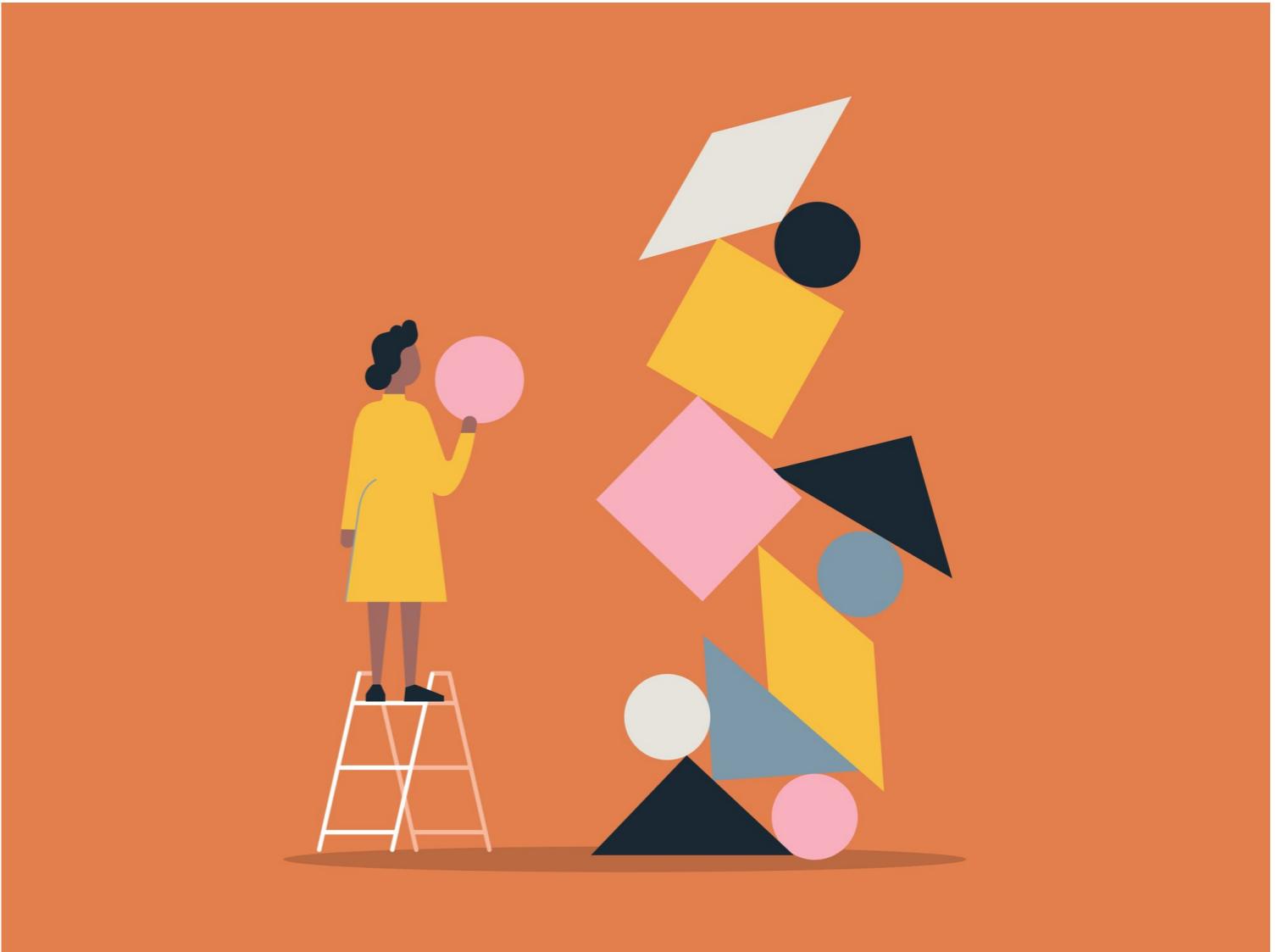
Data Storytelling - Method of communicating data insights tailored to a specific audience with an overarching narrative

# Parts of a story

**Visualization** - Share story familiar format.

**Context** - Shows story as part of larger effort.

**Narrative** - Gives the data a voice.



# Visualizations

Share information quickly that is easy to understand and action.

Focus on trends and patterns over specific details.

Visualizations are the core of a data story.



# Context is king

## Objectives:

- Show audience broader picture
- Focus on what is essential to understand
- Unifies data story with business objectives and outcomes



# Weaving a narrative

People need to connect with the message to make decisions.

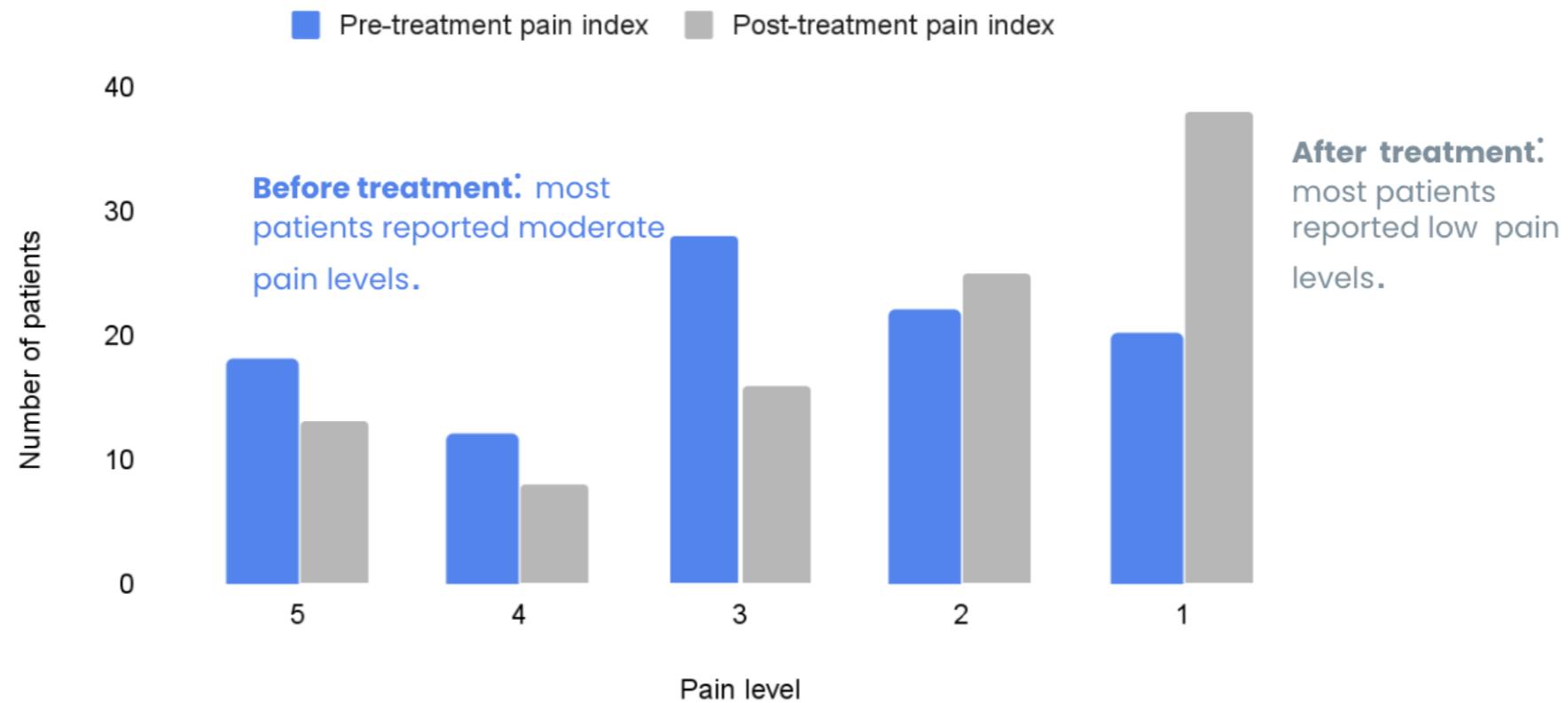
## Narrative objectives:

- Give data a clear and convincing voice
- Explain why insights are significant
- Clearly outline next steps and inspire action



# Bringing a story together

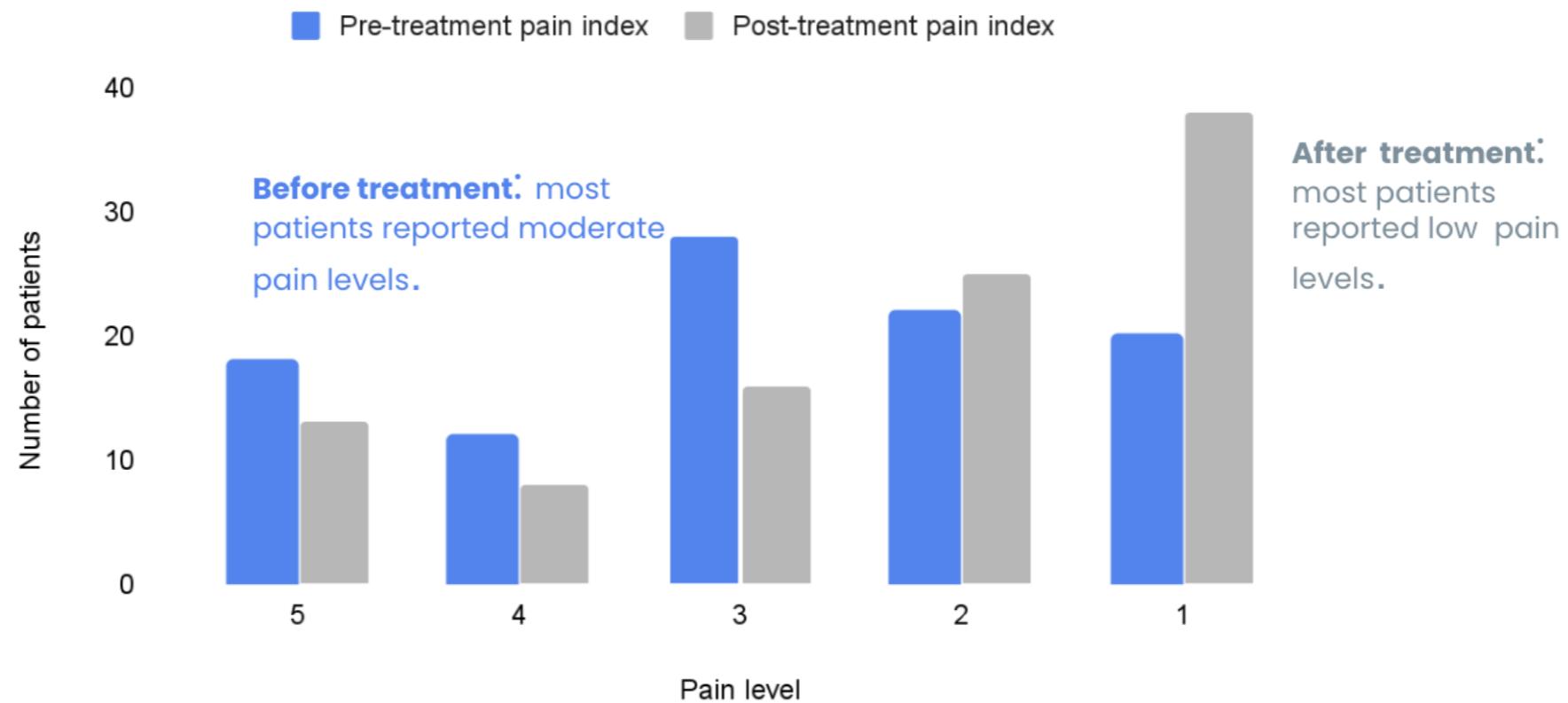
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# Bringing a story together

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# **Let's practice!**

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# Storytelling in action

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# Starting line



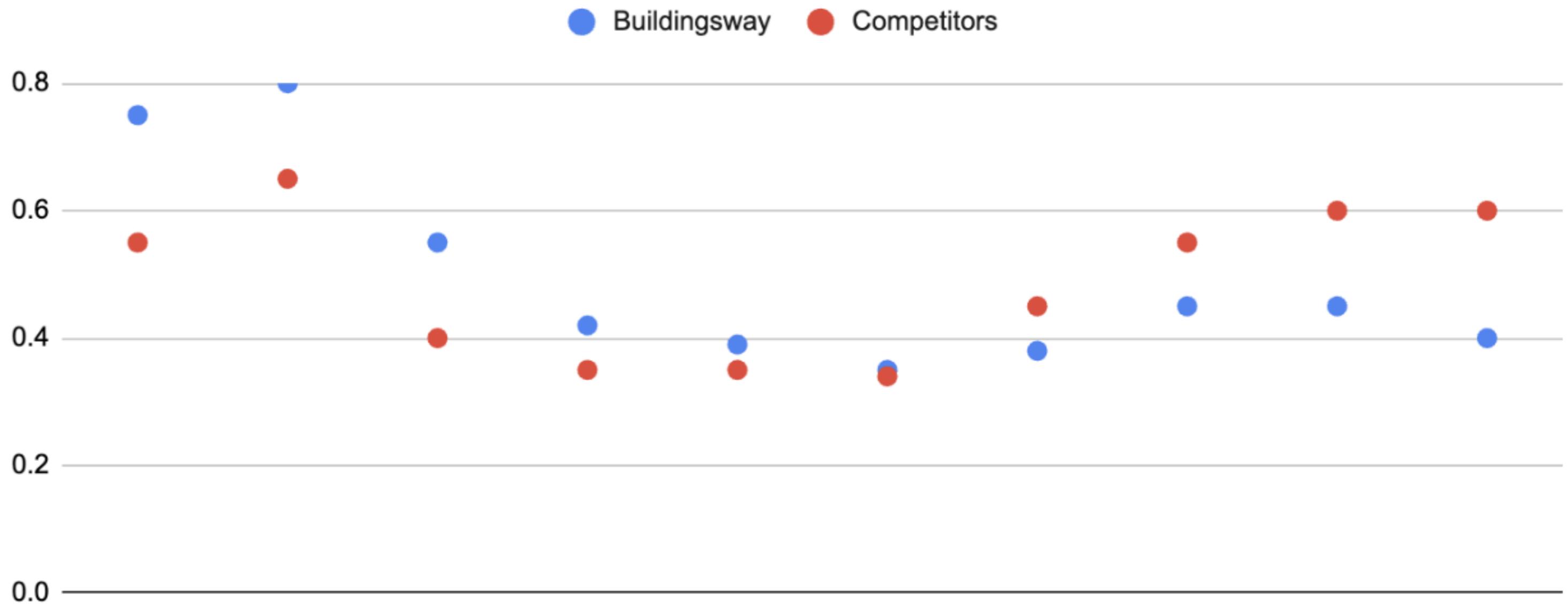
1. What are we trying to say
2. What visualization is best to share our message

# Buildingsway

Category	Buildingsway	Competitors
Exclusive Options	0.75	0.55
Appealing Atmosphere	0.8	0.65
Latest Treehouse Accessories	0.55	0.4
Showroom is arranged nicely	0.42	0.35
Wide Selection	0.39	0.35
Fast sales experience	0.35	0.34
I can find what I'm shopping for	0.38	0.45
Knowledgeable Sales Staff	0.45	0.55
Friendly Associates	0.45	0.6
Quick Builder Feedback	0.4	0.6

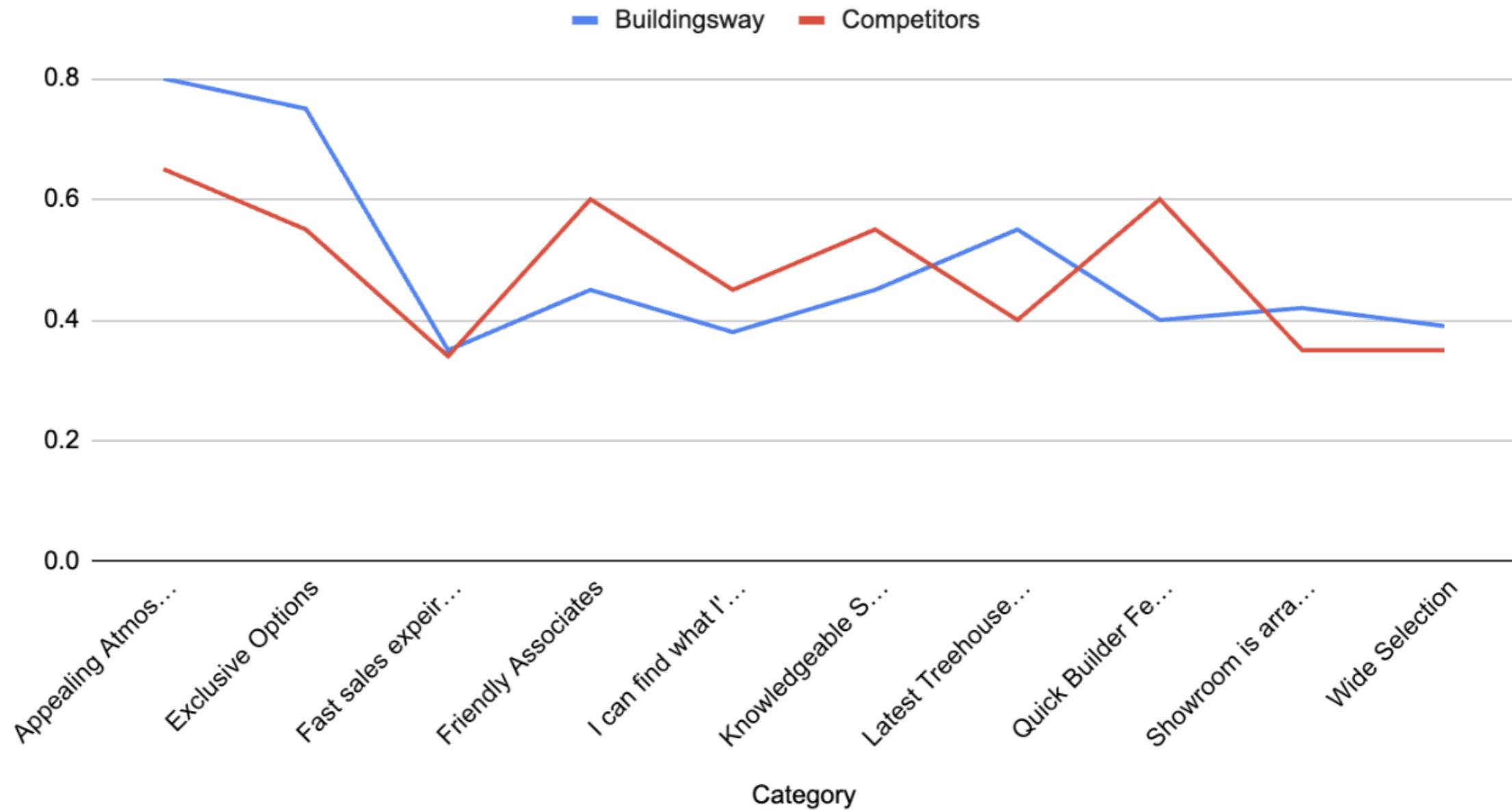
# Scatter dud

## Buildingsway and Competitors



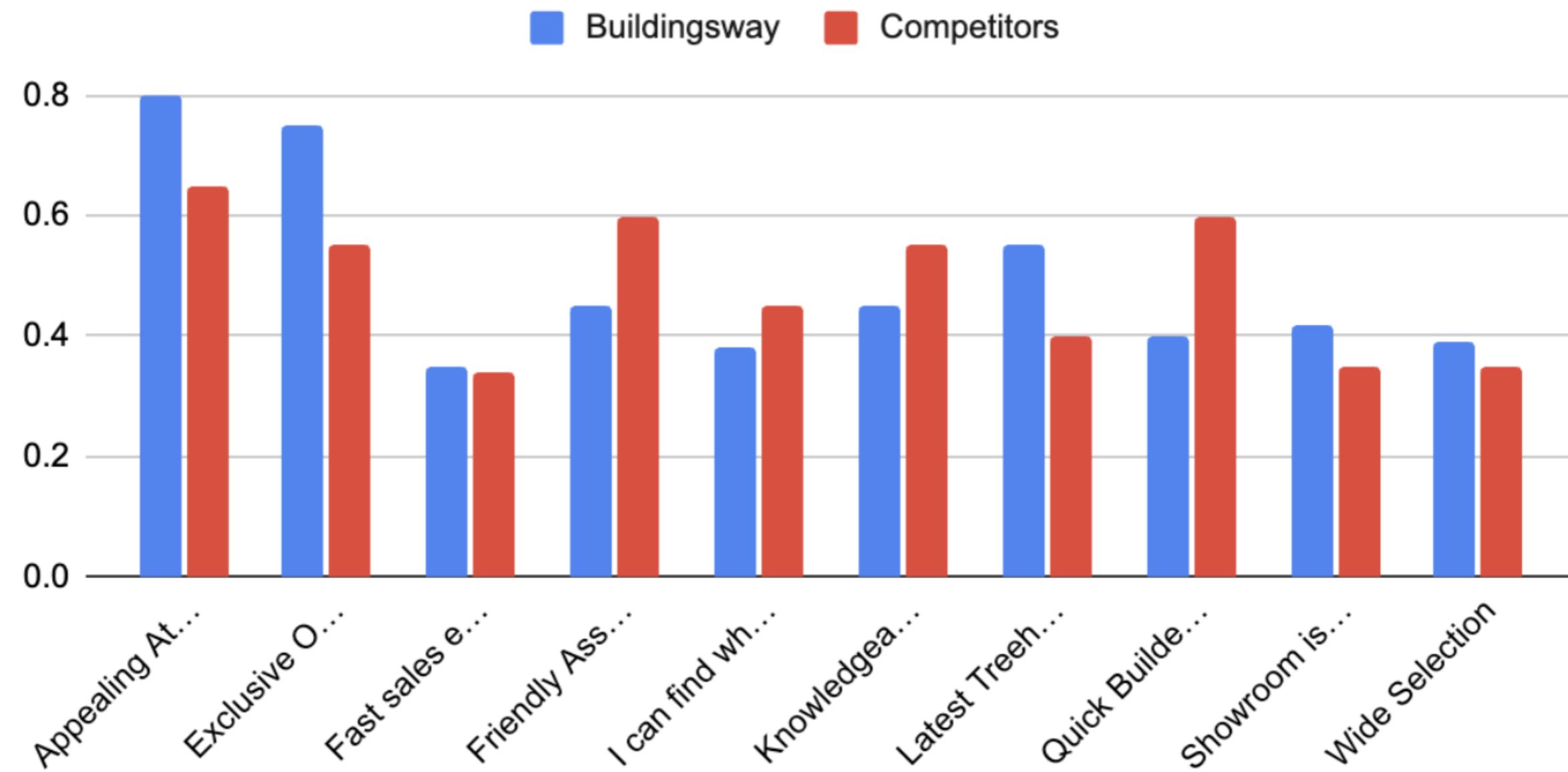
# Line them up

Buildingsway and Competitors



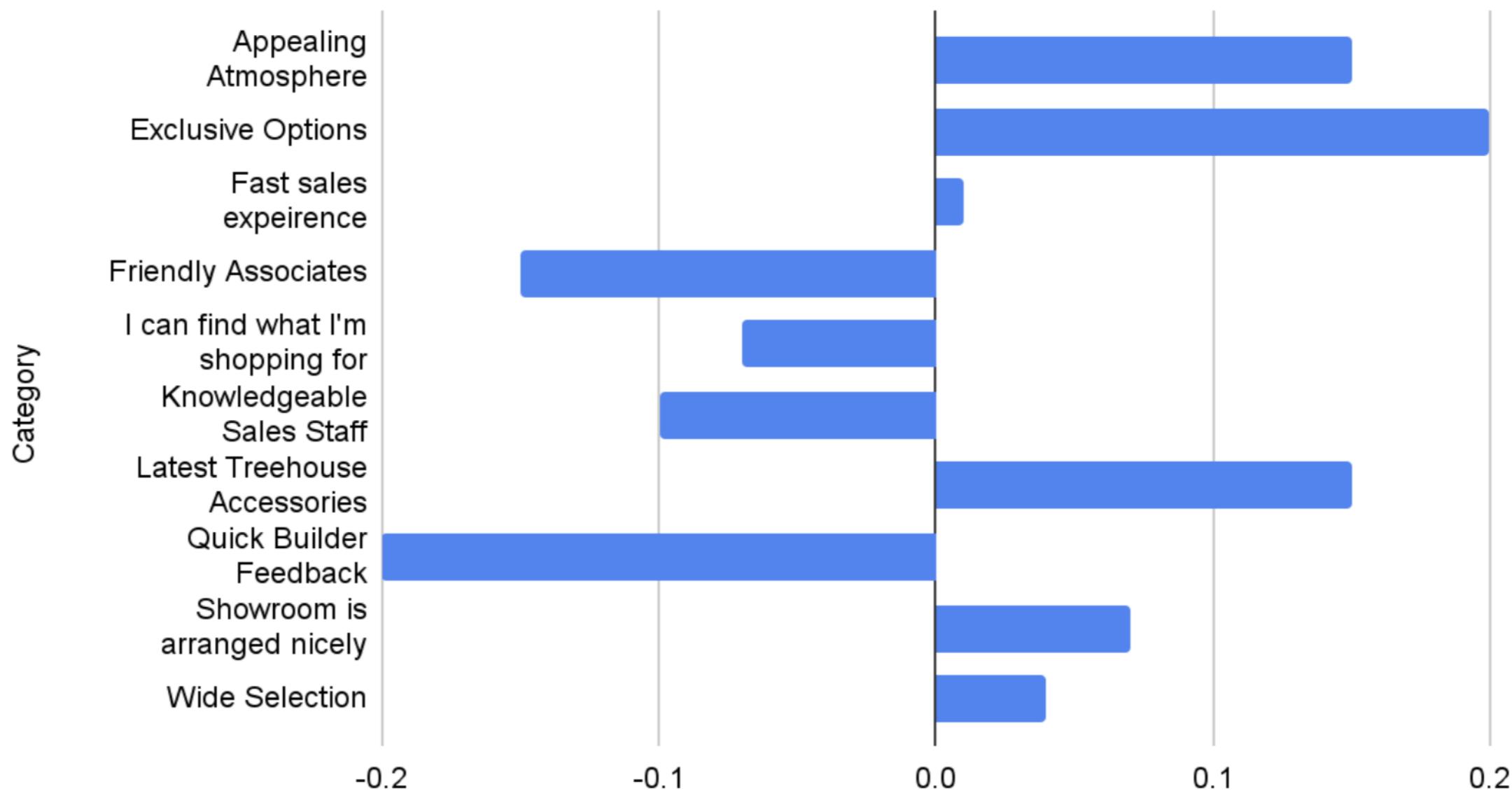
# Two graphs walk into a bar

## Buildingsway and Competitors



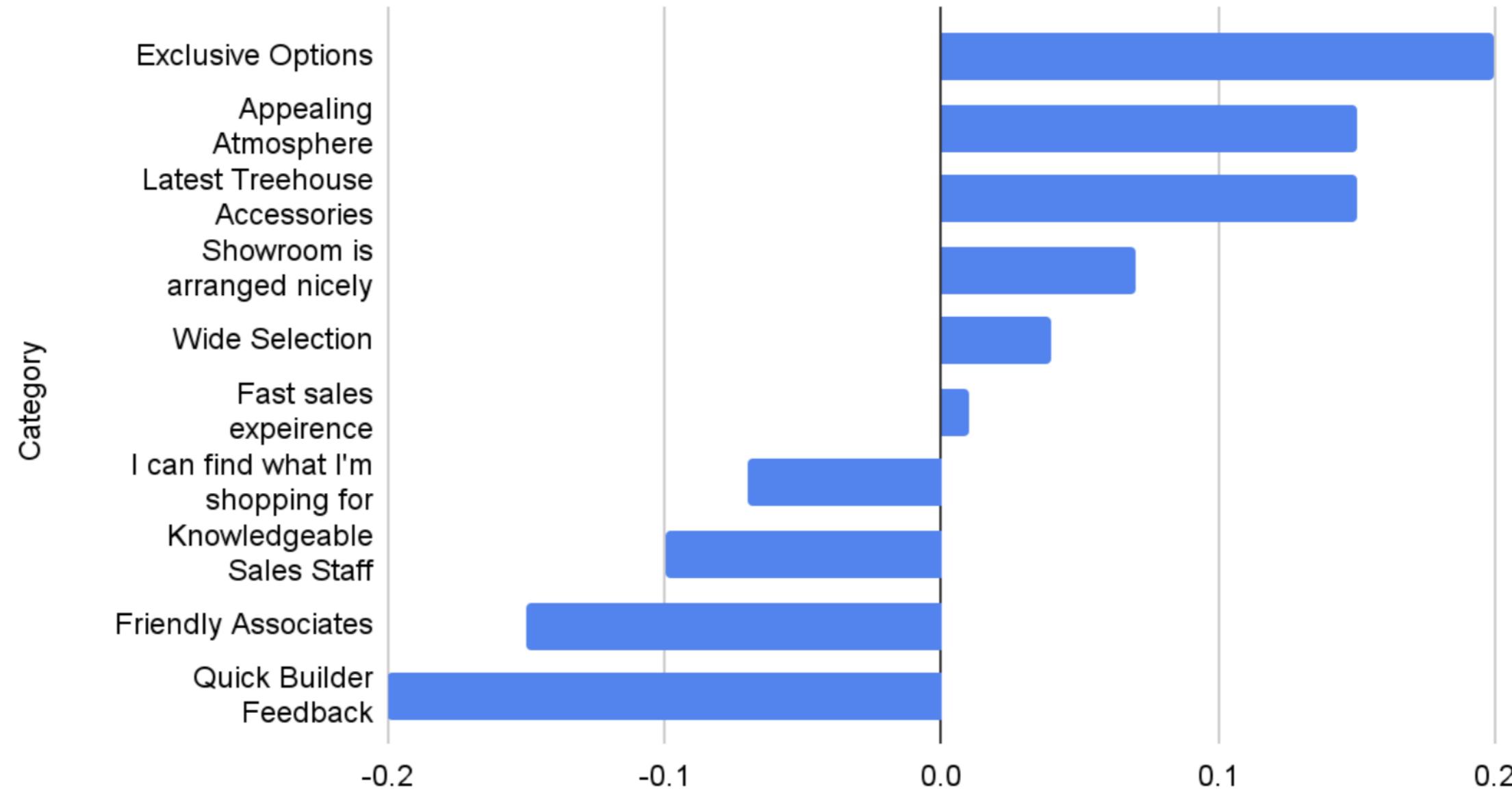
# What a difference

Buildingsway vs Competitors Difference



# Rough around the edges

Buildingsway vs Competitors Difference



# Leveling up



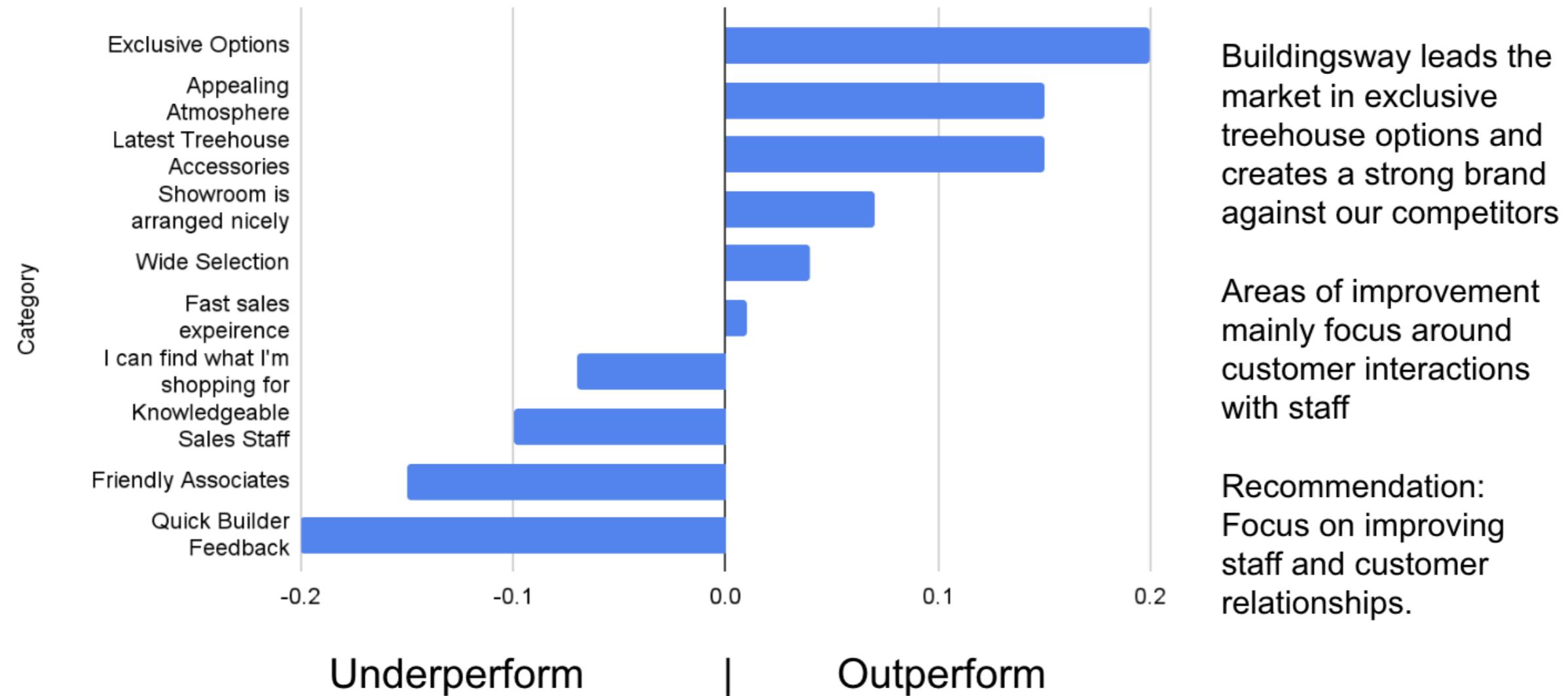
Strong interaction presentation

## Universal Principles

- Incorporate text
- Utilize color
- Simplify visual elements

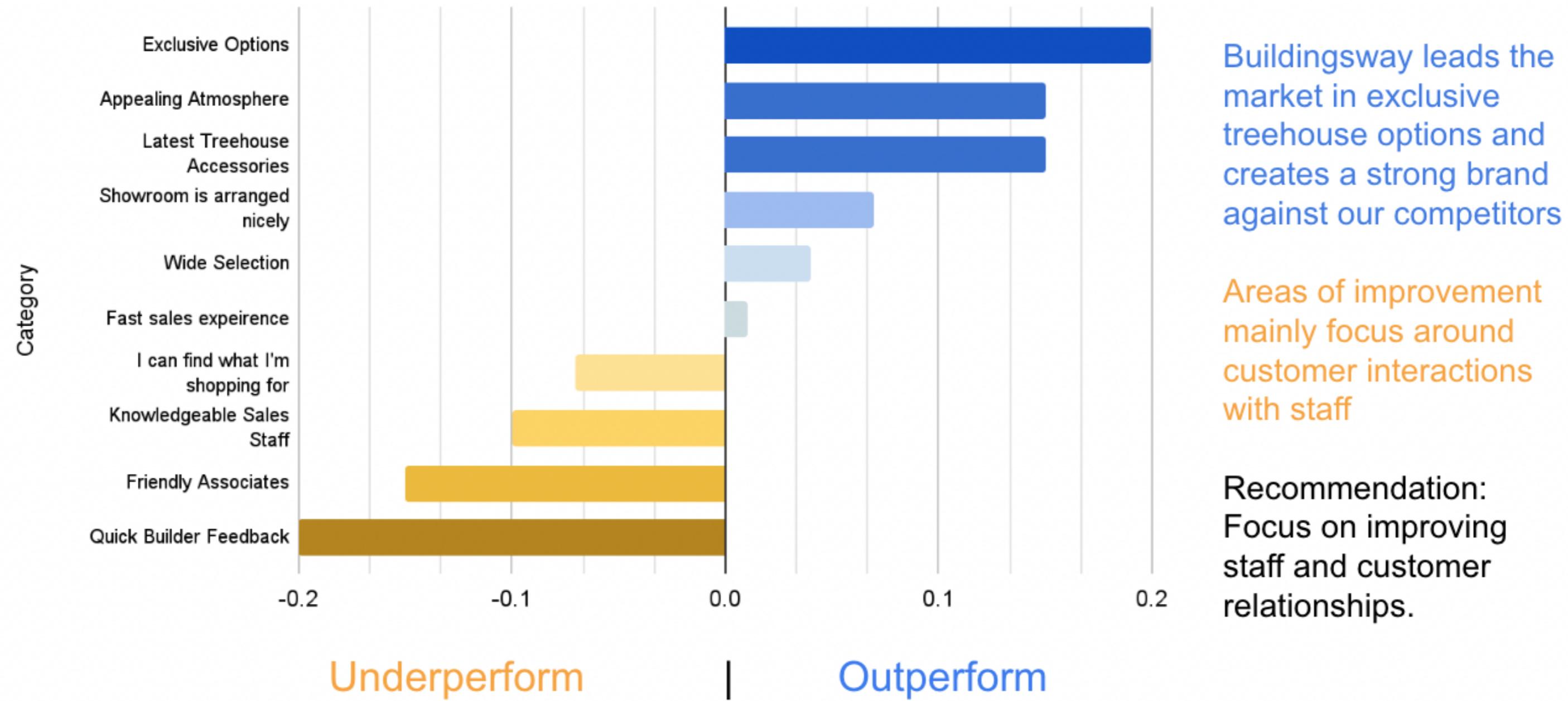
# Getting wordy

Buildingsway vs Competitors Difference



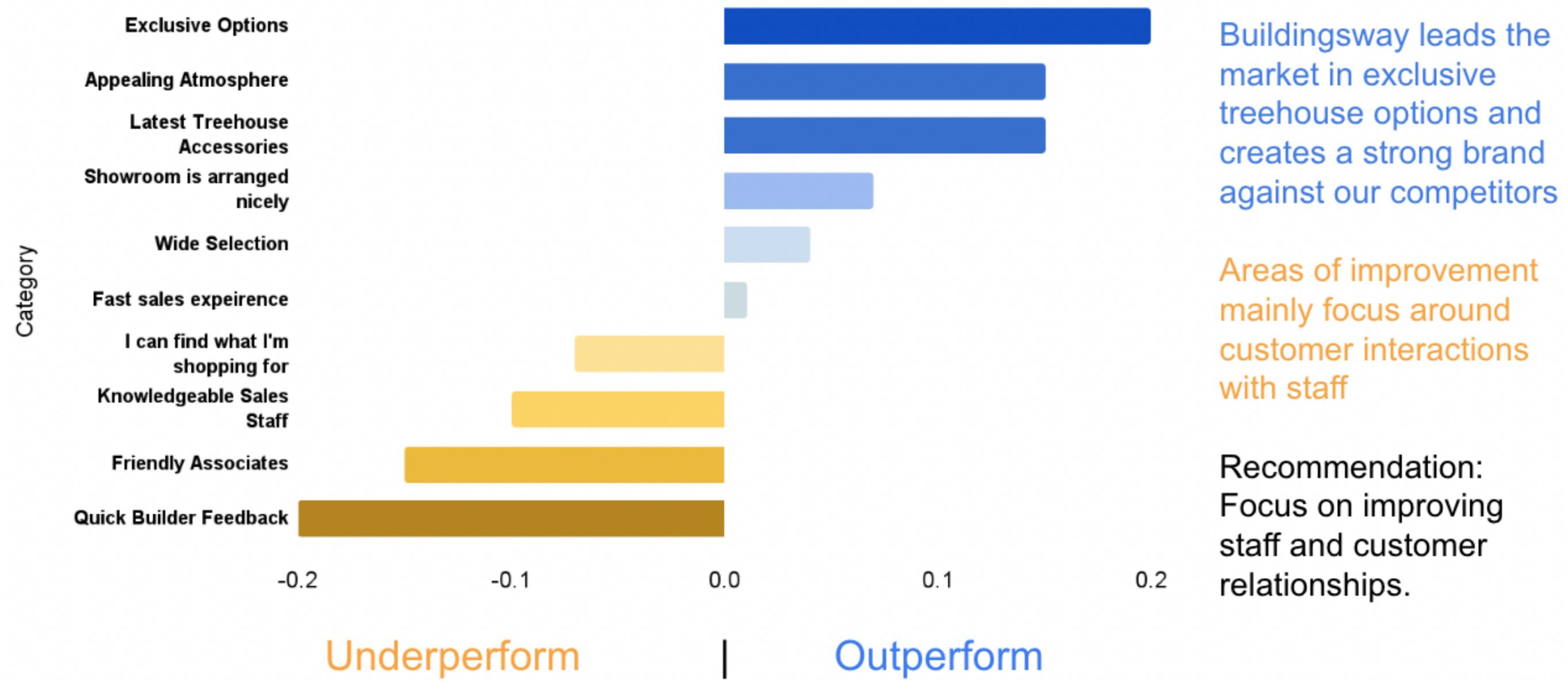
# Coloring between the lines

## Buildingsway vs Competitors Difference



# Simplifying the journey

## Buildingsway vs Competitors Difference



# **Let's practice!**

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# Data storytelling group framework

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# Teamwork makes the dream work



# Getting the band back together

## Major Roles

- Subject Matter Expert
- Analyst
- Visualizer
- Reviewer



# Subject matter expert (SME)



## Subject matter expert

Responsible for knowing the business problem completely

## Group objectives:

- Develop narrative, giving data story a voice
- Build context, relate data story to organizational efforts

# Art and science



## Visualizer

Blends art and science to create compelling visuals

### Group objectives:

- Craft stunning visualizations
- Ensure insights are properly showcased

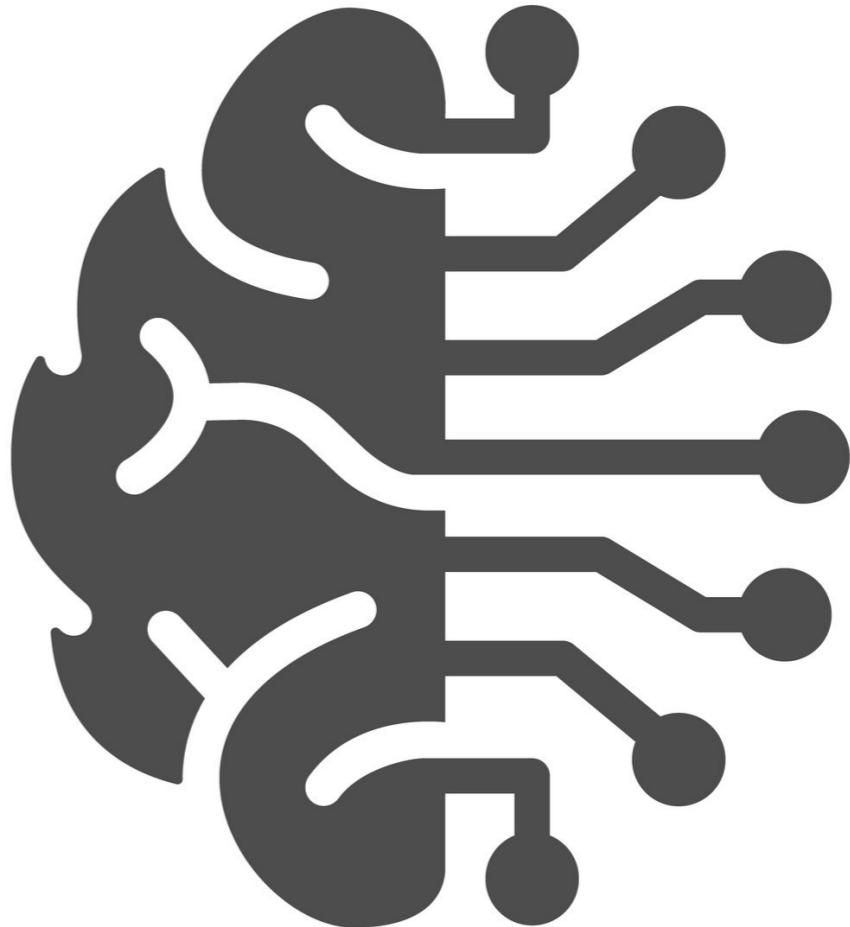
# Analyze this

## Analyst

Technical expert in charge of uncovering and supporting insights

### Group objectives:

- Support other roles
- Answer analytical questions
- Does not require business expertise



# Focus the story

## Reviewer

Evaluates the overall data story

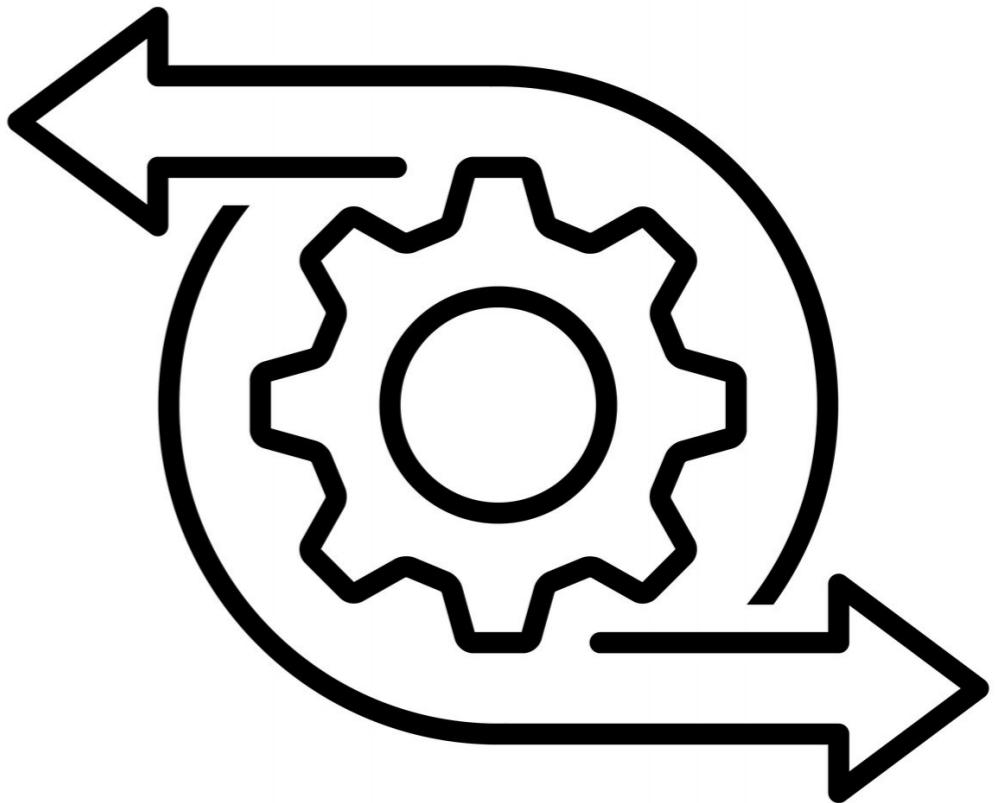
## Group objectives:

- Verifies assumptions
- Gives overall impression of data story
- Acts as a sample audience



# Remain flexible

- Within a group, someone can serve more than one role
- Start with any amount of members
- Rotate roles and learn collectively



# **Let's practice!**

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# Wrap-up

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# Recap

- You learned about:
  - How knowledge is shared
  - Created compelling visualizations
  - Unlocked the power of data stories

# Additional Resources

## Books

- Good Charts: The HBR Guide to Making Smarter, More Persuasive Data Visualizations
- Storytelling with Data: A Data Visualization Guide for Business Professionals
- The Big Book of Dashboards: Visualizing Your Data Using Real-World Business Scenarios

## DataCamp Courses

- Data communication concepts

# **Congratulations!**

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