

Data storytelling

COMMUNICATING DATA INSIGHTS

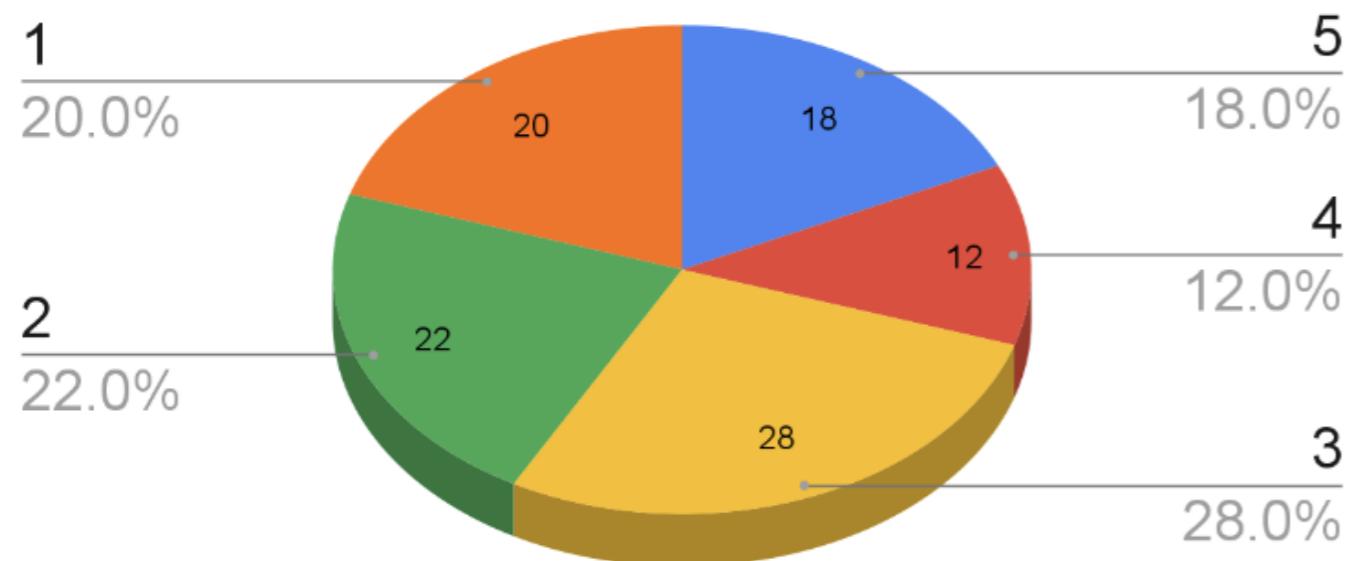


Joe Franklin

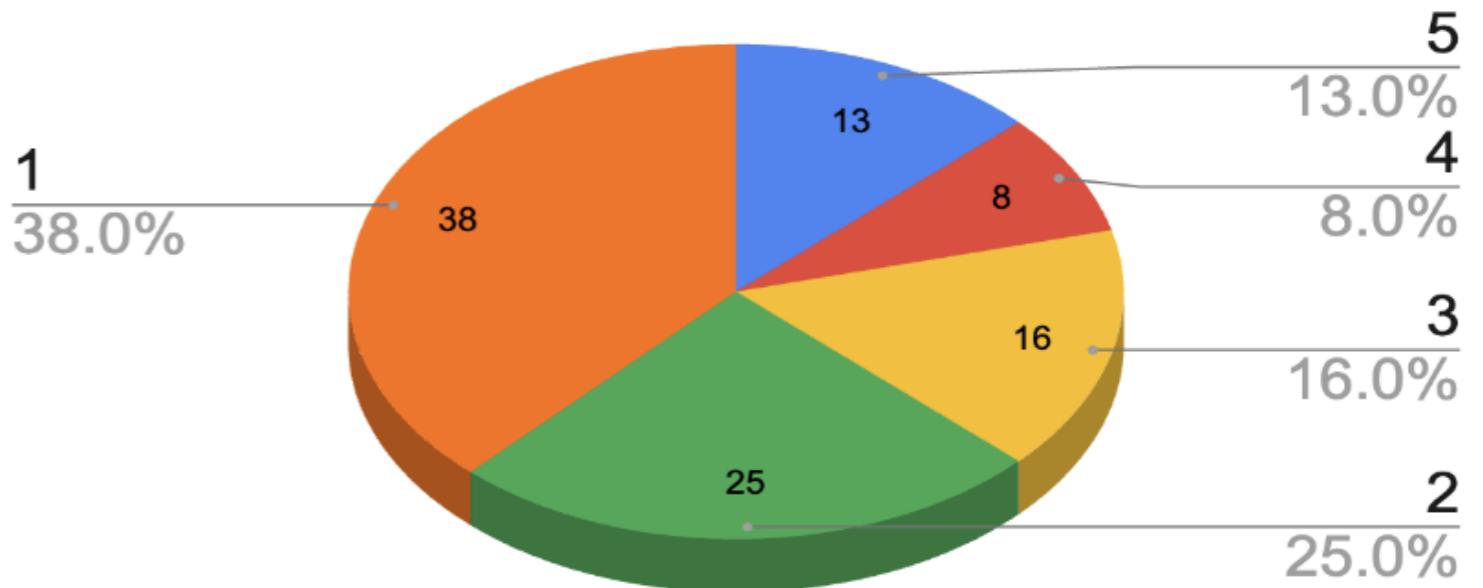
Senior Curriculum Manager, DataCamp

A picture tells a thousand words?

Patient pre-treatment pain index

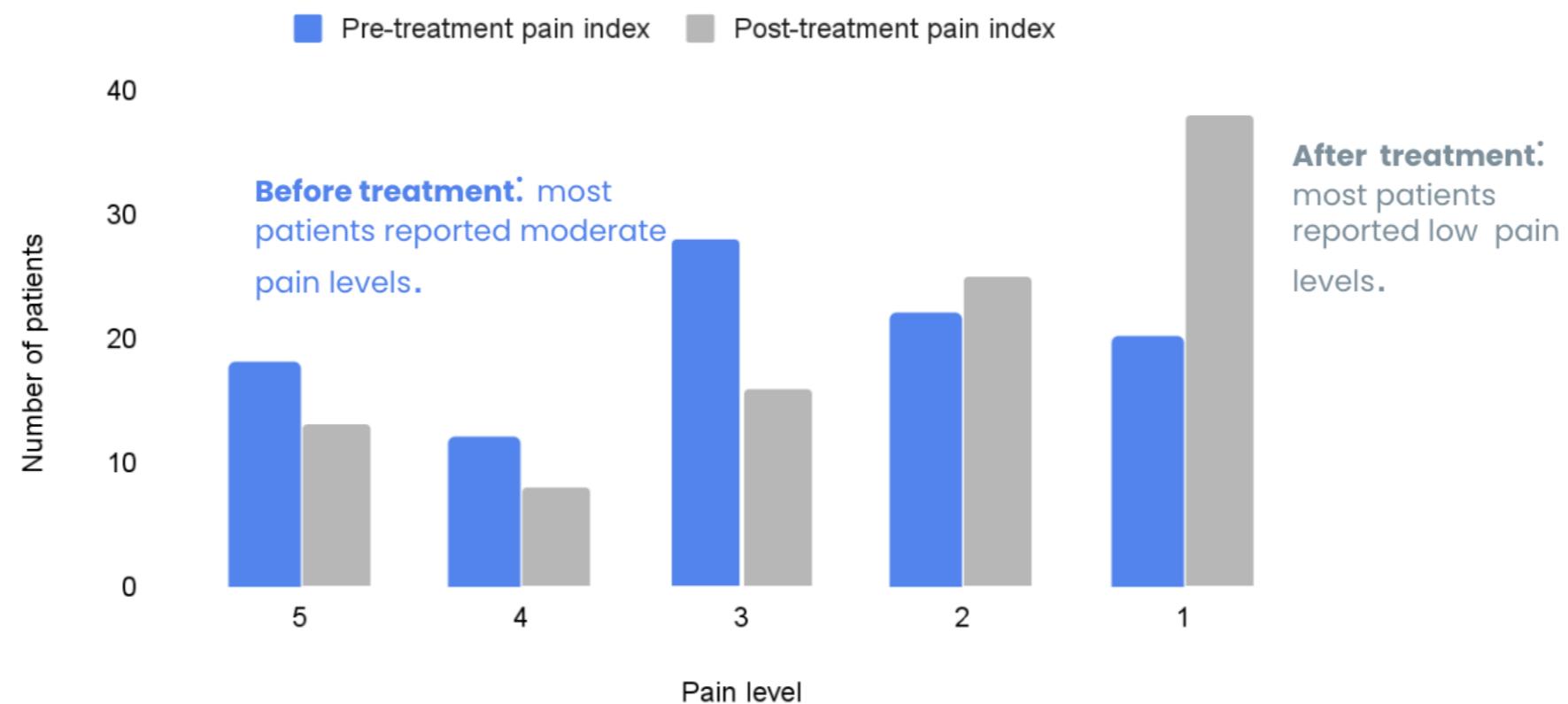


Patient post-treatment pain index



A story tells a single insight

Pain reduction treatment is a success.

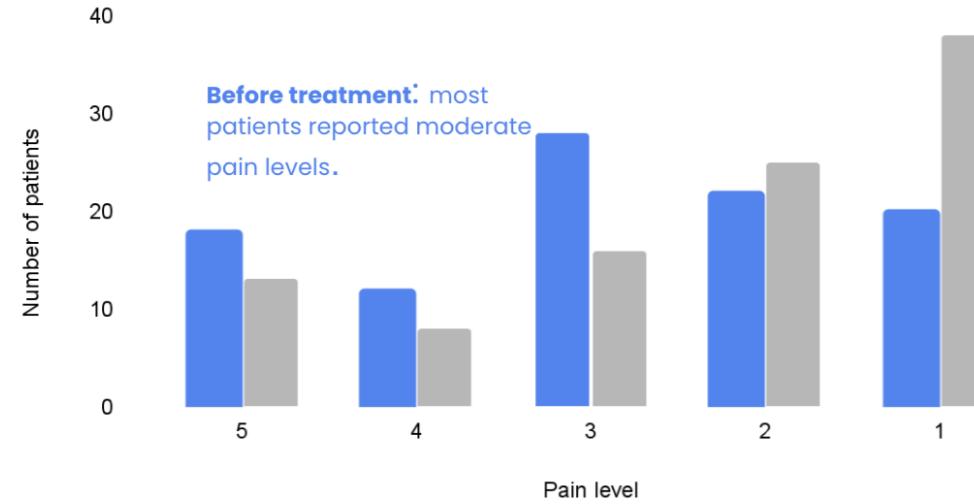


Chronic pain patients received an experimental treatment regimen resulting in a large improvement in reported pain levels. This treatment should become the new standard for pain management among chronic patients.

Spot the difference

Pain reduction treatment is a success.

Pre-treatment pain index Post-treatment pain index

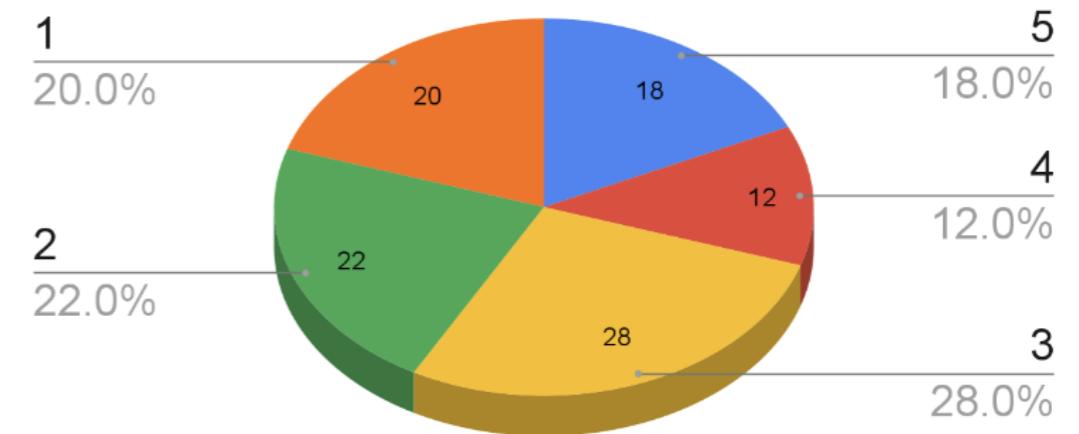


Before treatment: most patients reported moderate pain levels.

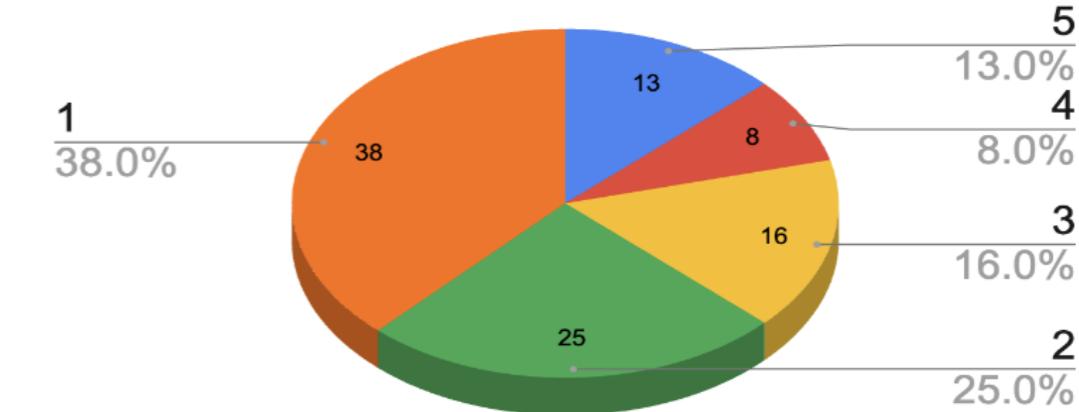
After treatment: most patients reported low pain levels.

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

¹ 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

¹ 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.

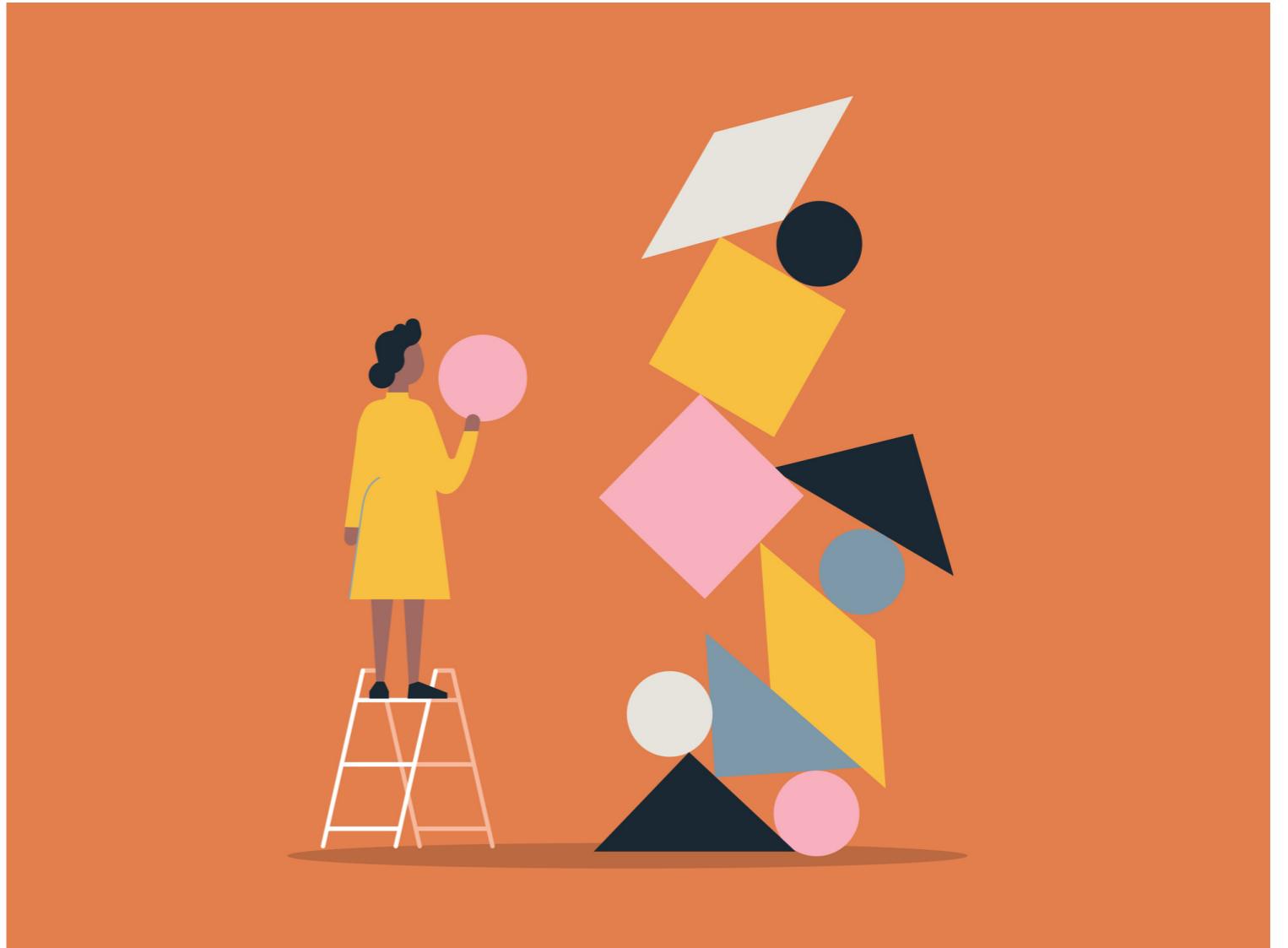
Data Storytelling - Method of communicating data insights tailored to a specific audience with an overarching narrative

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.

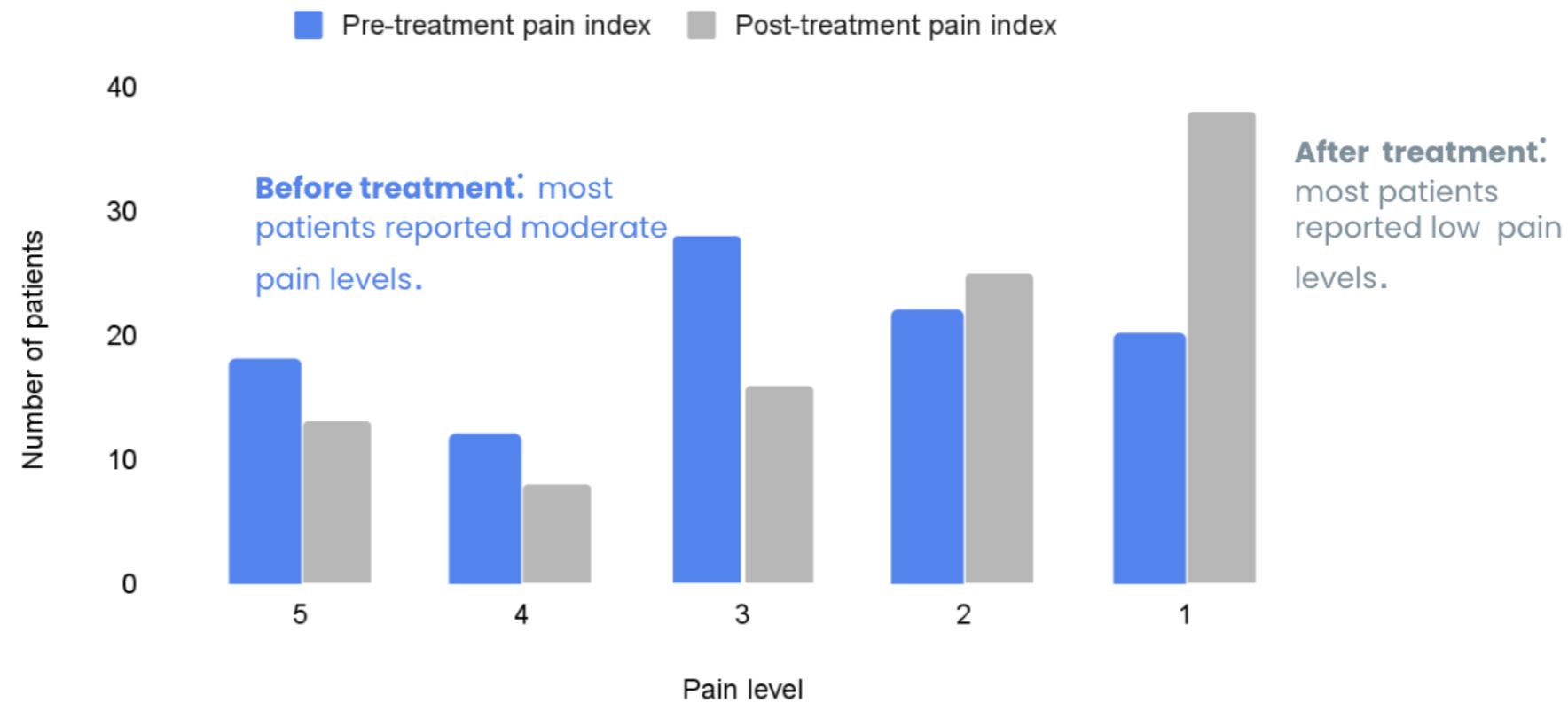
Narrative objectives:

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



Bringing a story together

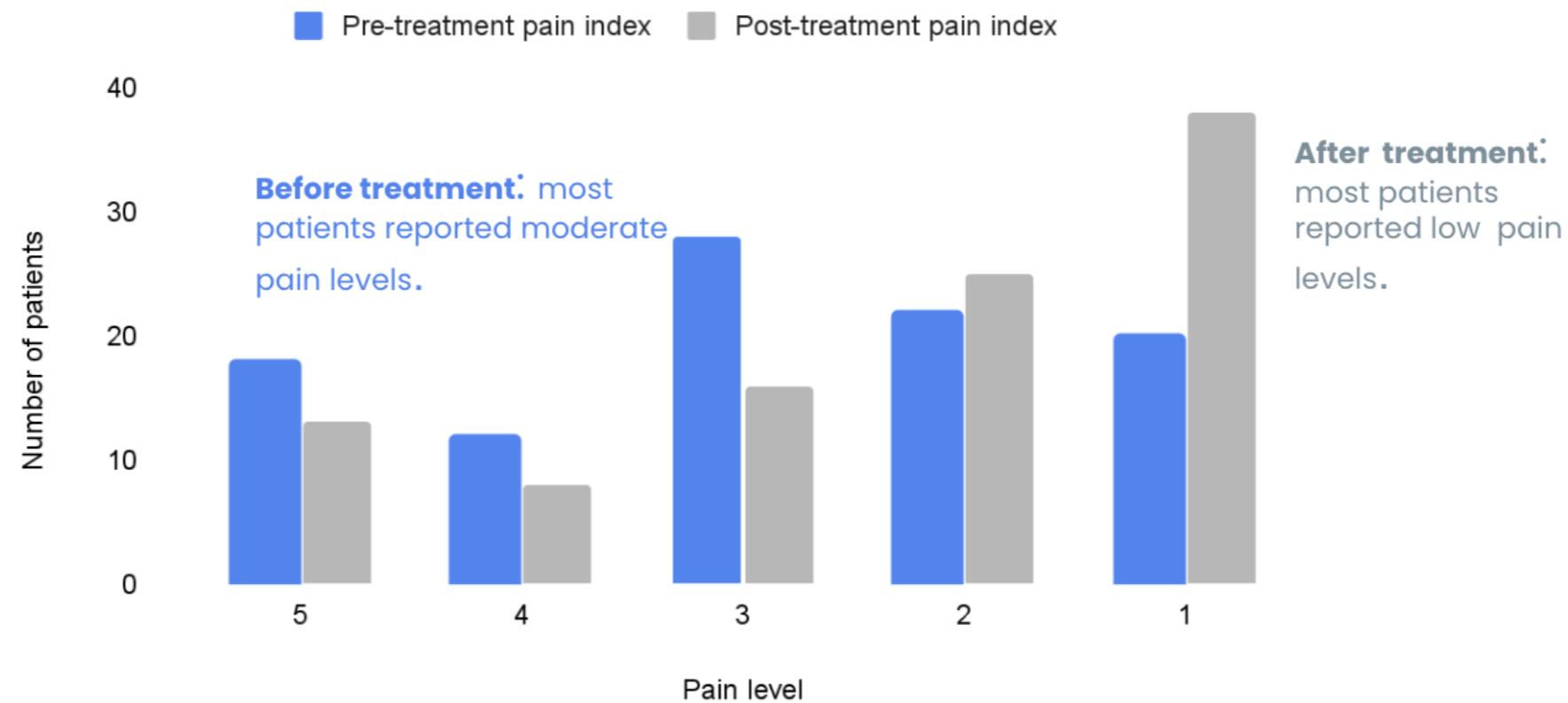
Pain reduction treatment is a success.



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Bringing a story together

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Storytelling in action

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Starting line



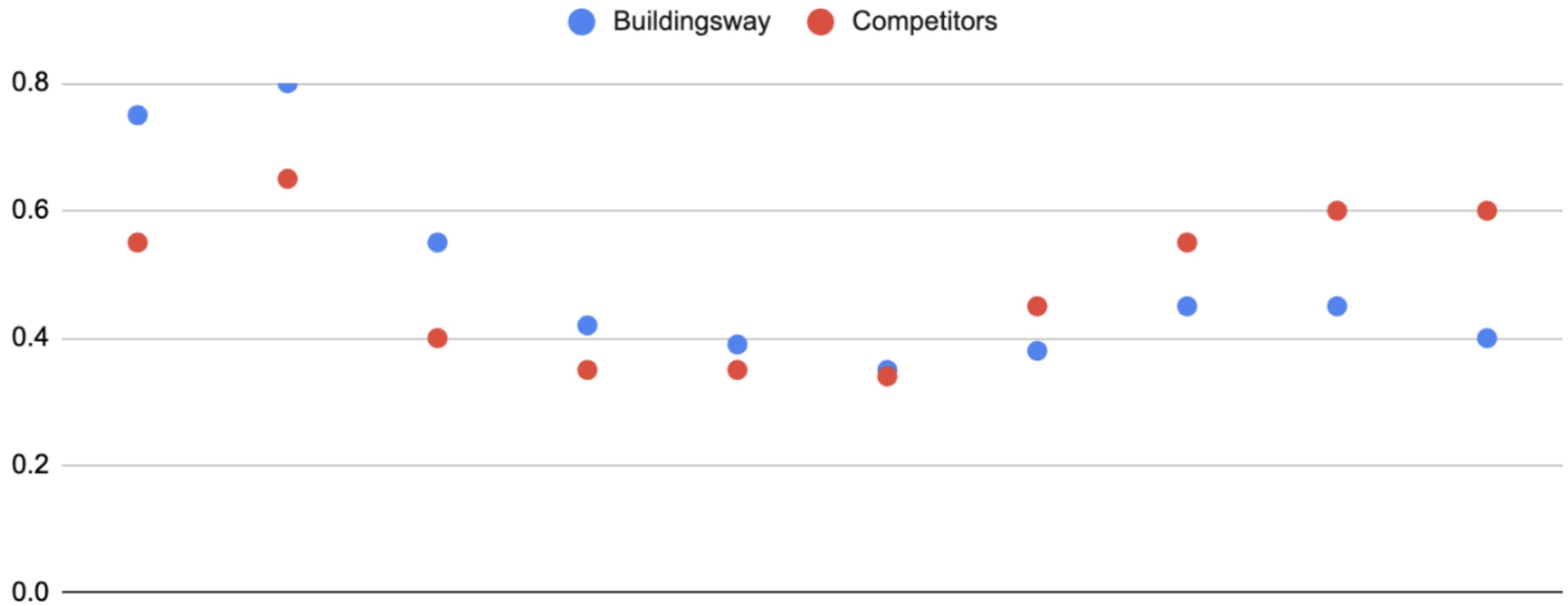
1. What are we trying to say
2. What visualization is best to share our message

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

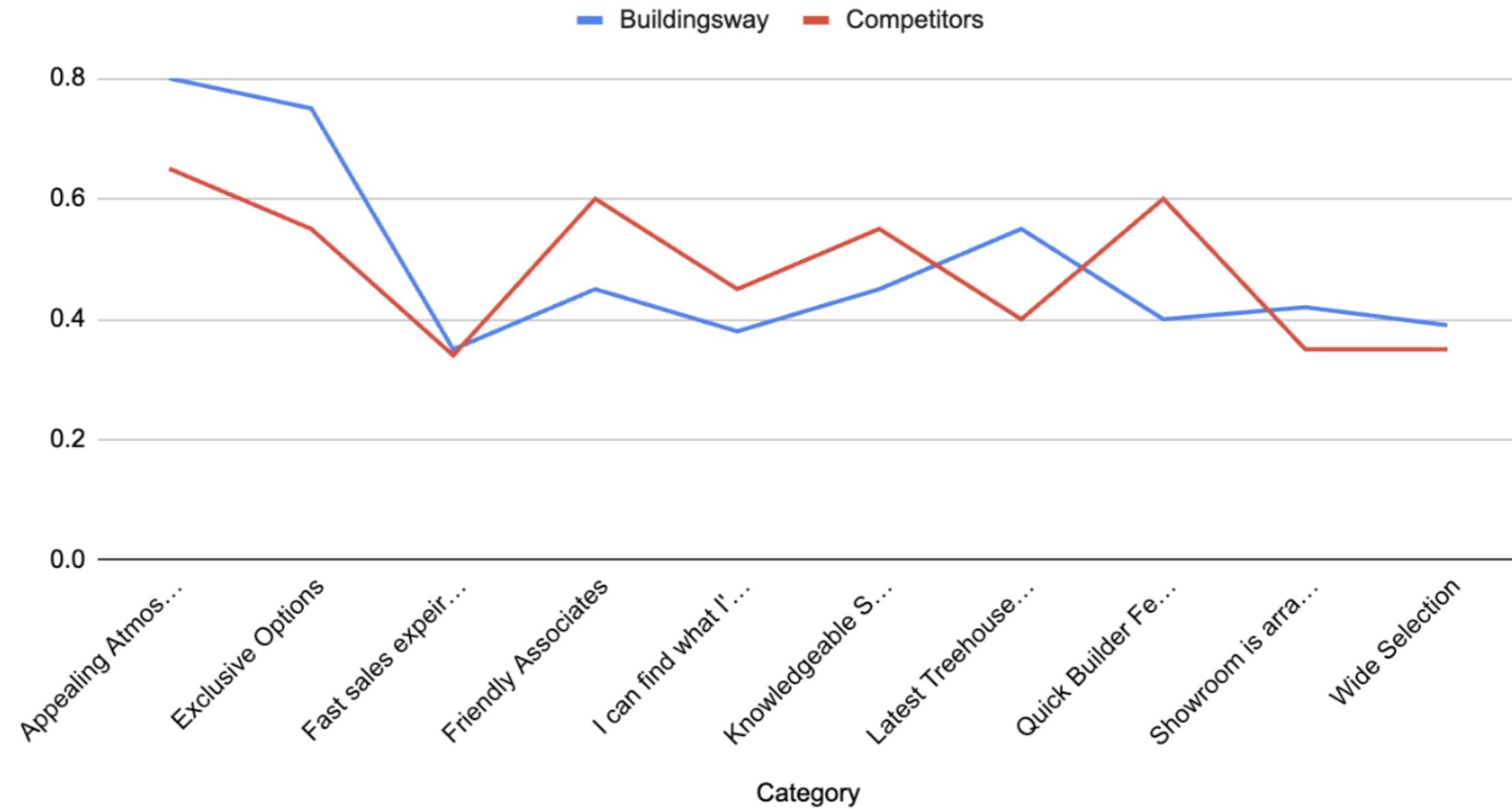
Scatter dud

Buildingsway and Competitors



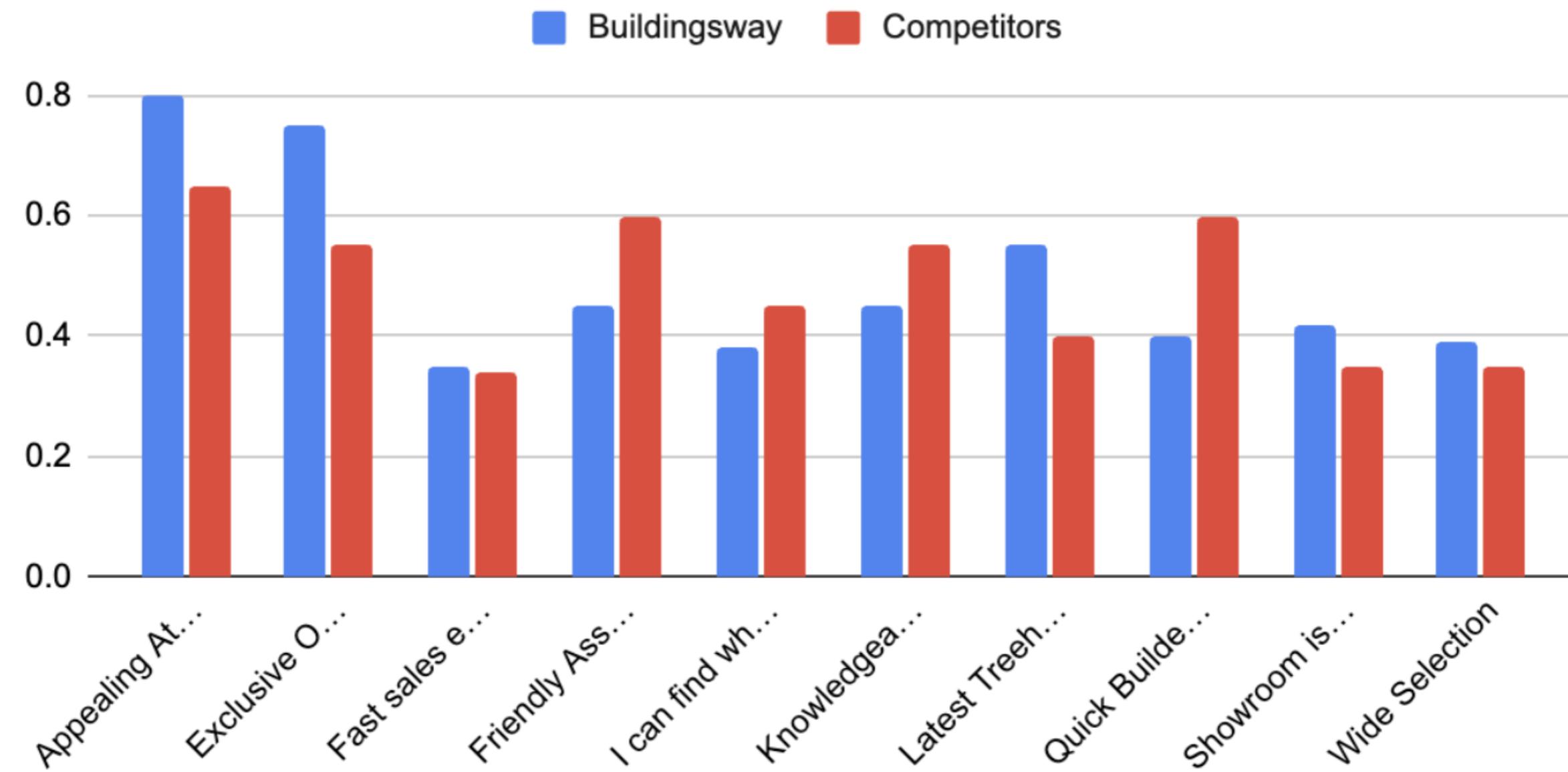
Line them up

Buildingsway and Competitors



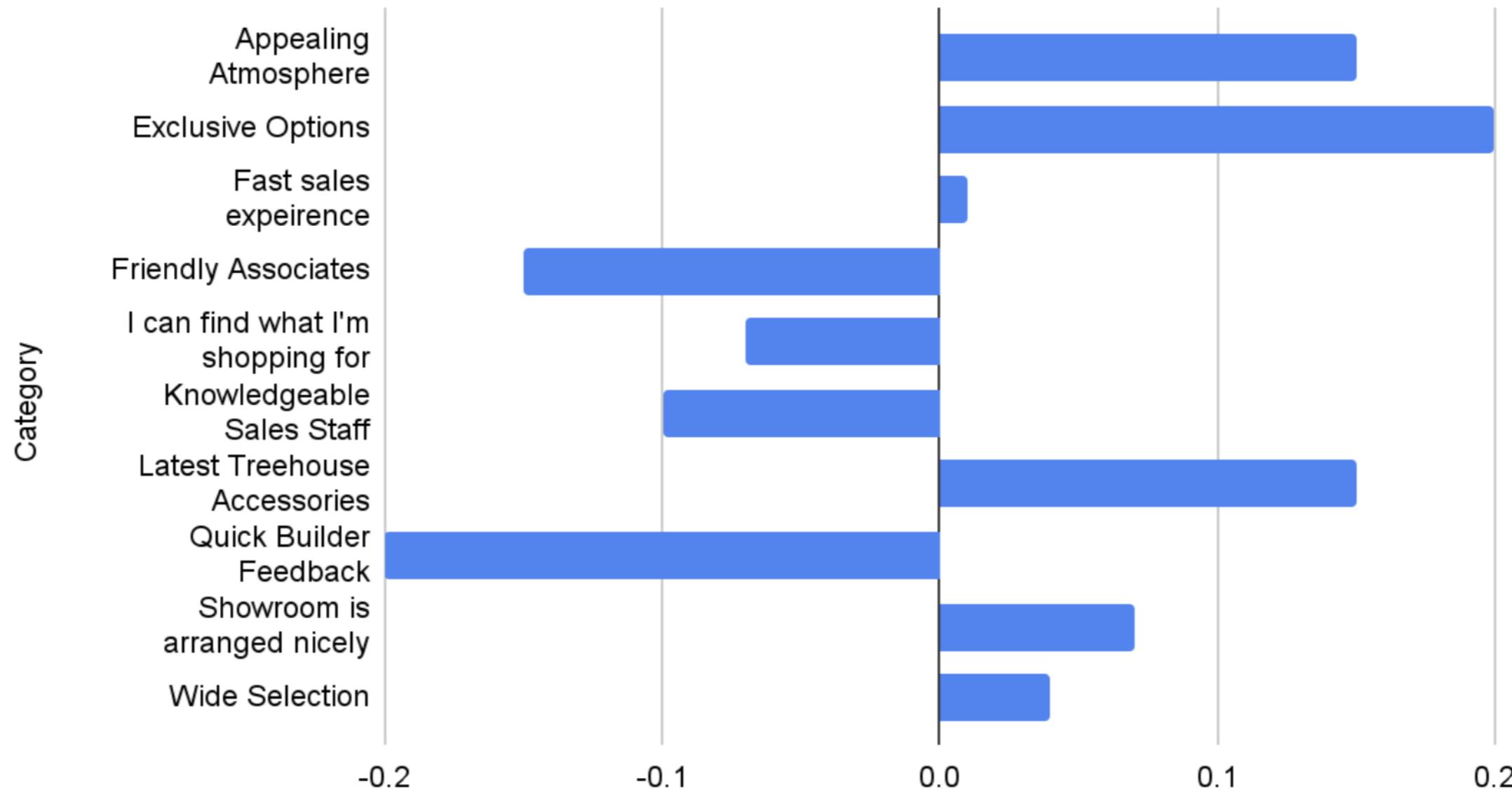
Two graphs walk into a bar

Buildingsway and Competitors



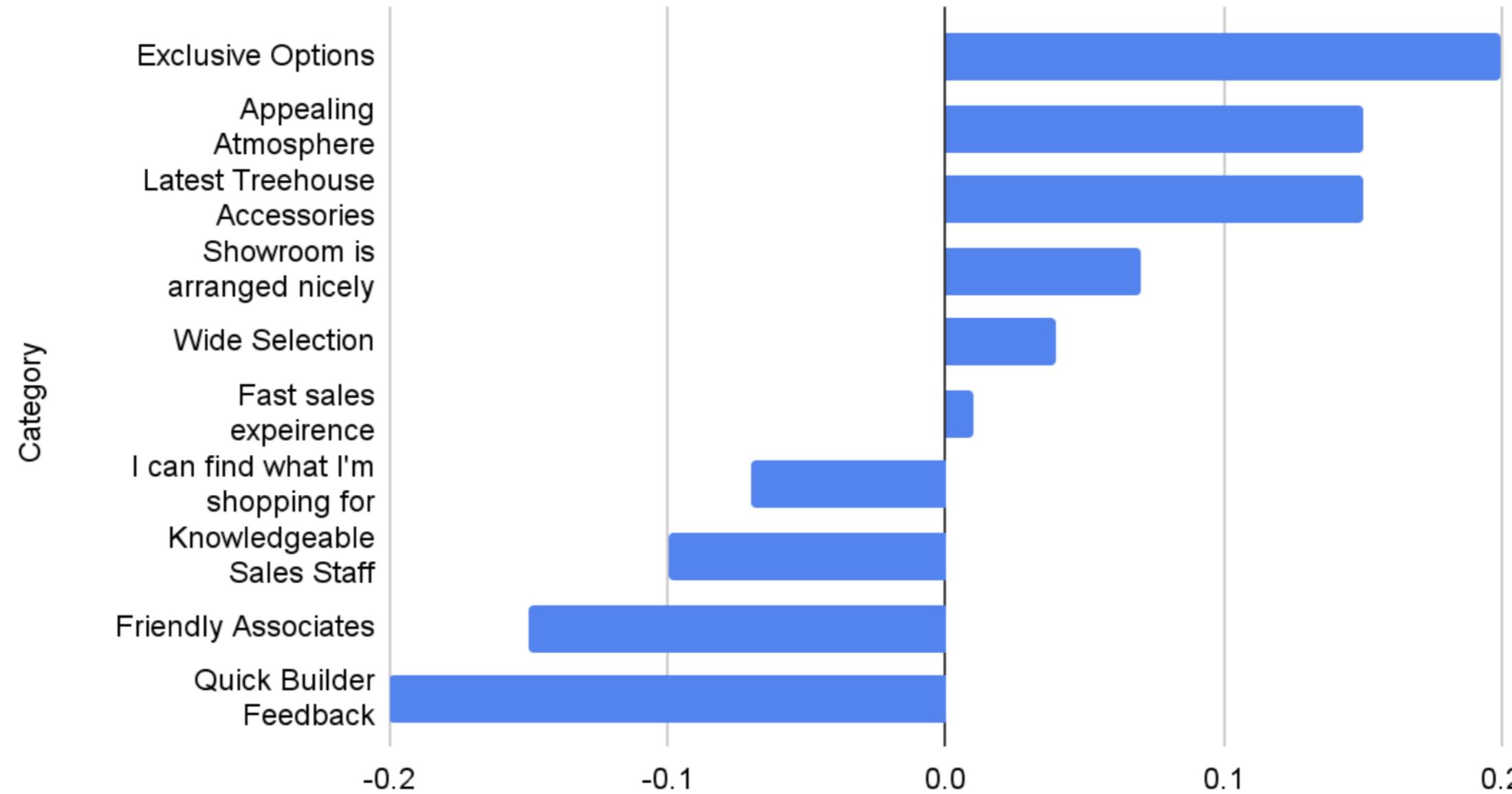
What a difference

Buildingsway vs Competitors Difference



Rough around the edges

Buildingsway vs Competitors Difference



Leveling up



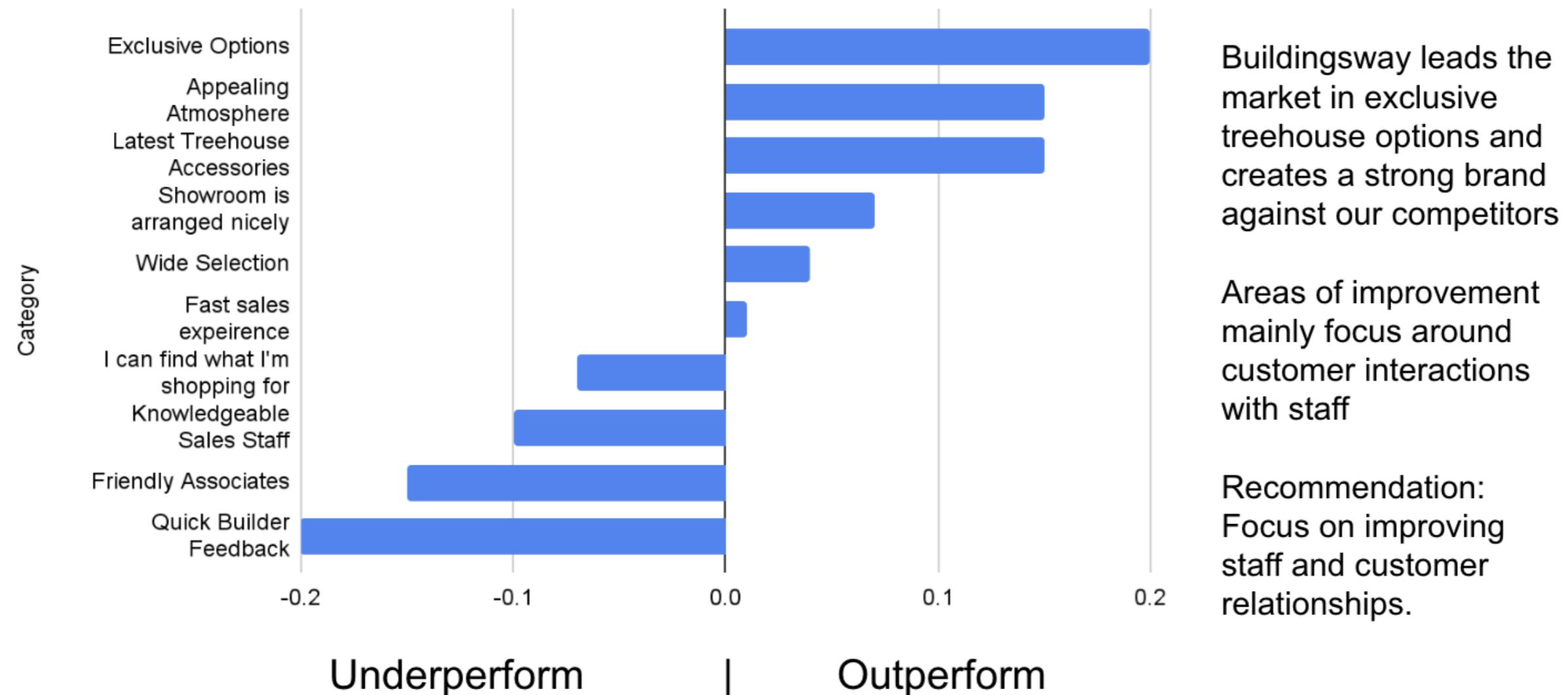
Strong interaction presentation

Universal Principles

- Incorporate text
- Utilize color
- Simplify visual elements

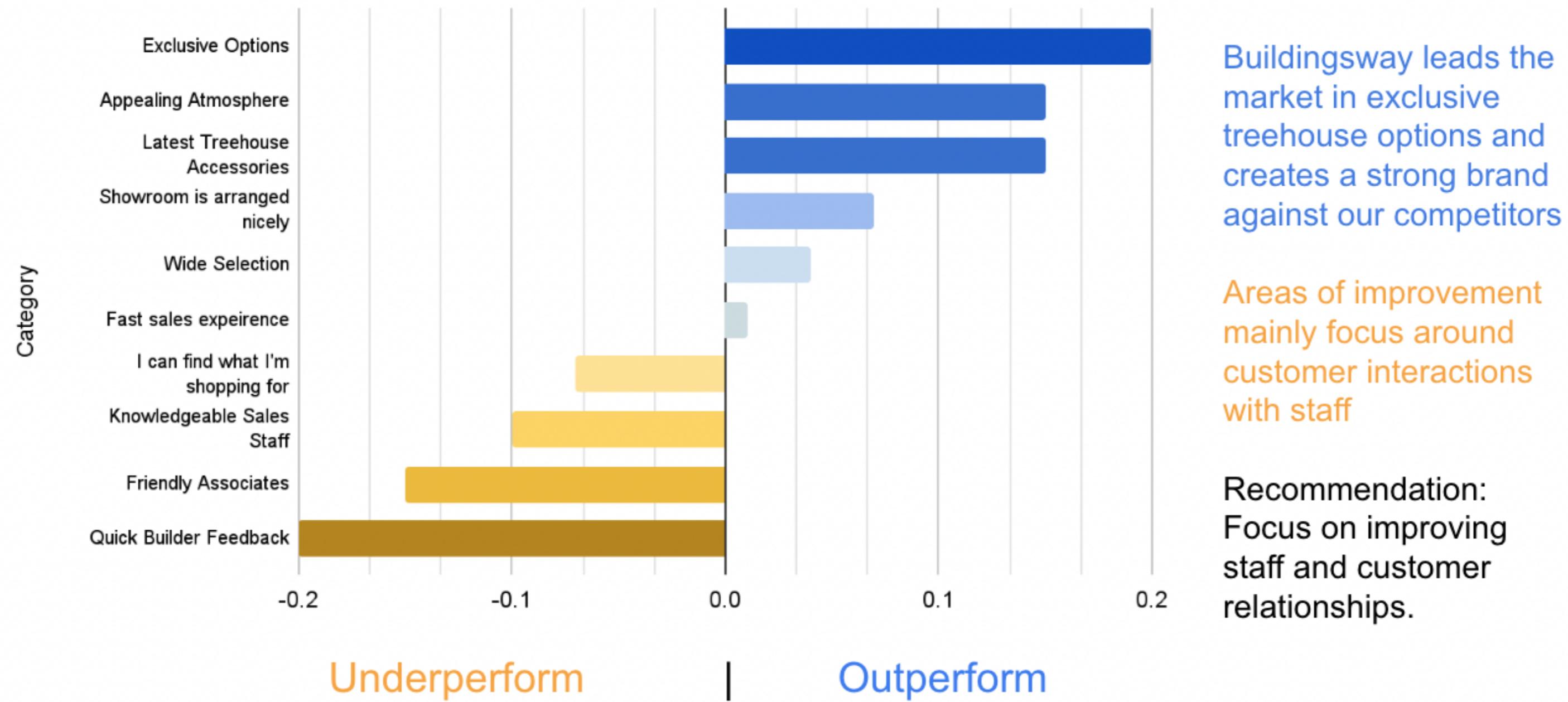
Getting wordy

Buildingsway vs Competitors Difference



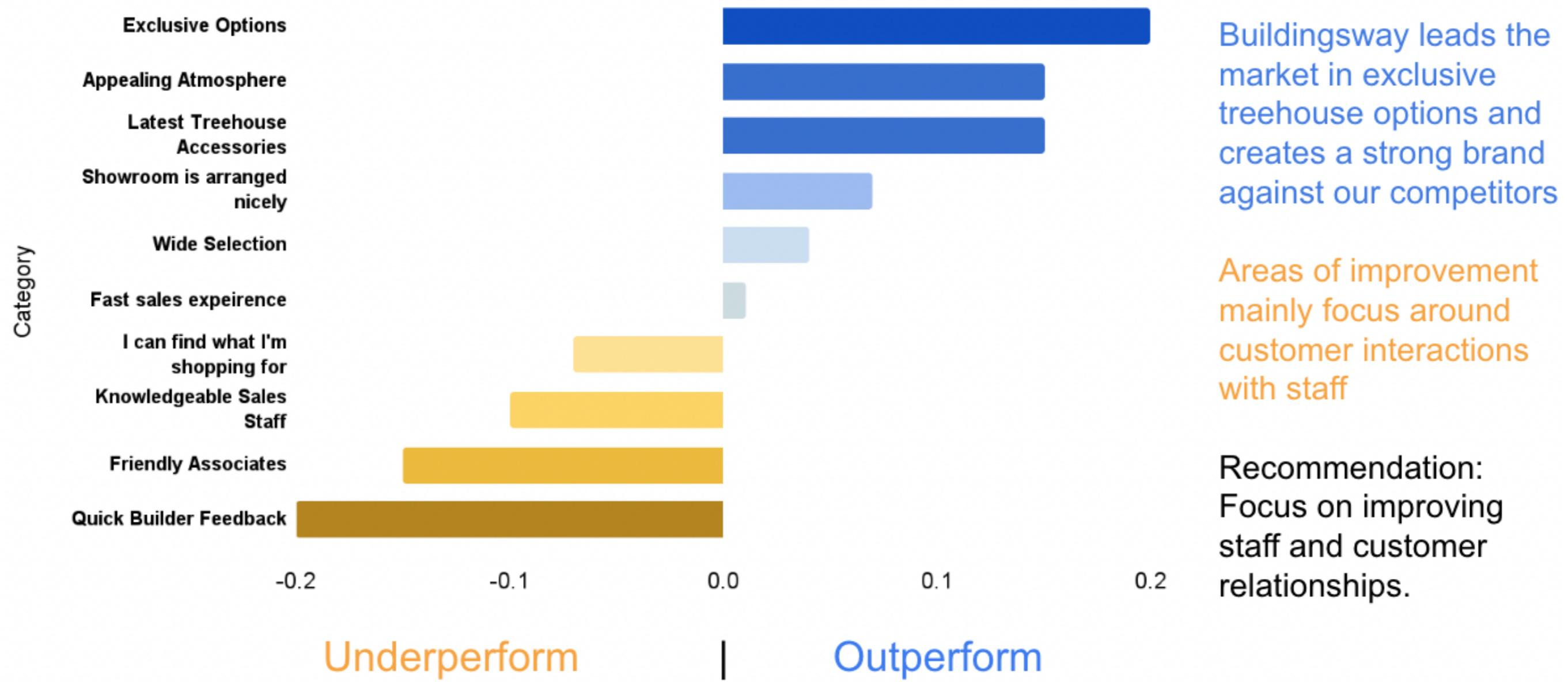
Coloring between the lines

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

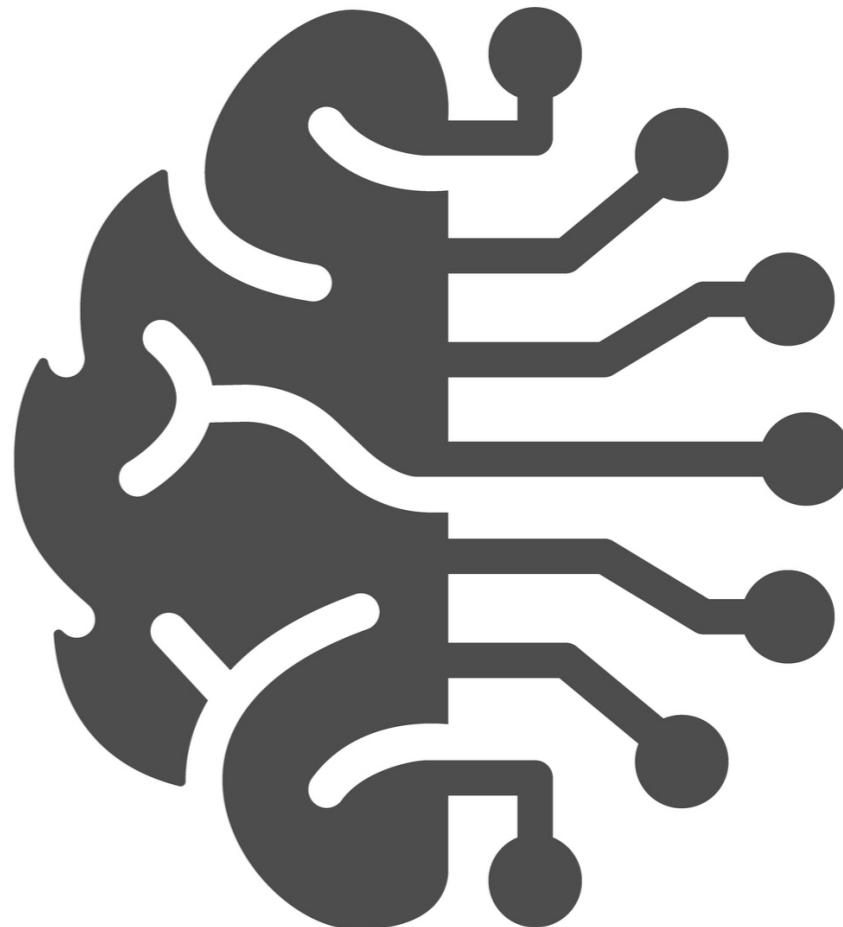
Analyze this

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

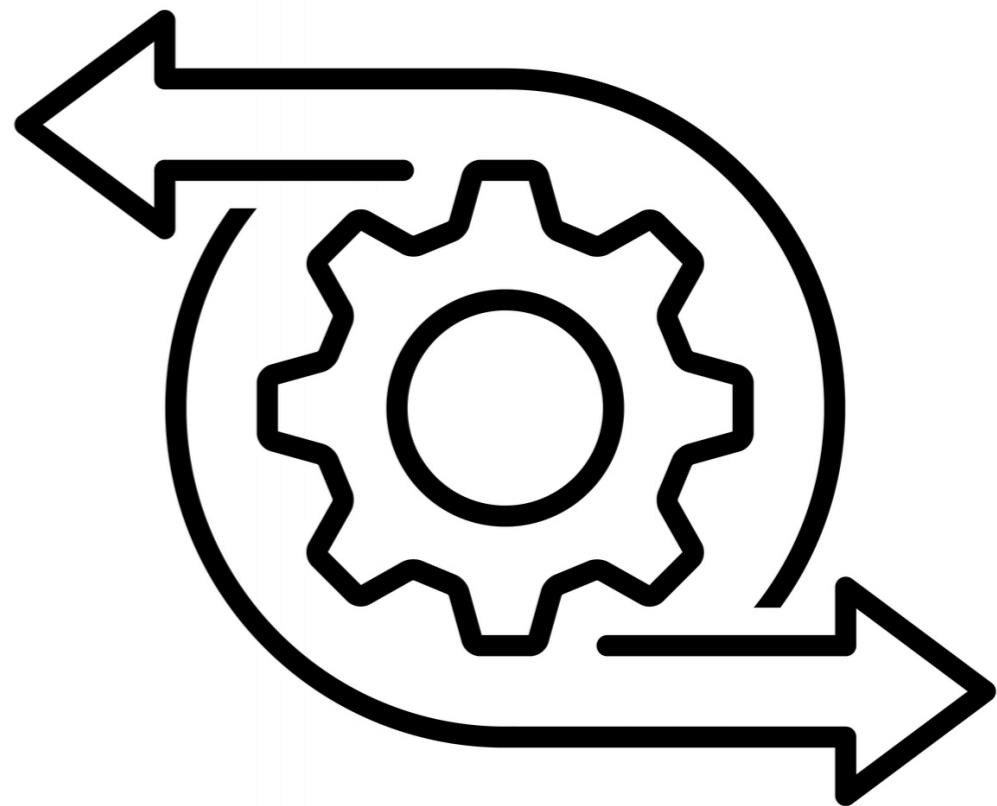
Group objectives:

- 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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