



Scaling the Human Insight Advantage with AI-ethnographies

“Dishwashing Tales”

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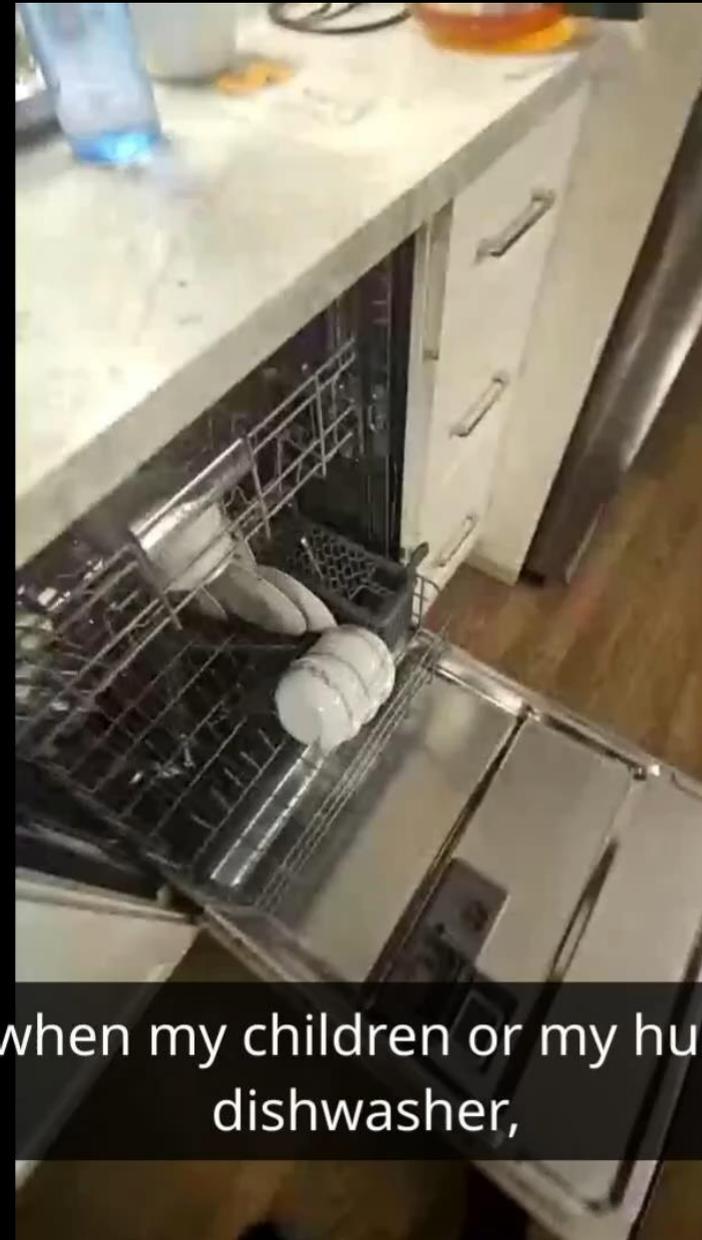


A STORY FROM MY HOUSEHOLD

I AM NOT THE ONLY ONE ...

Family frictions

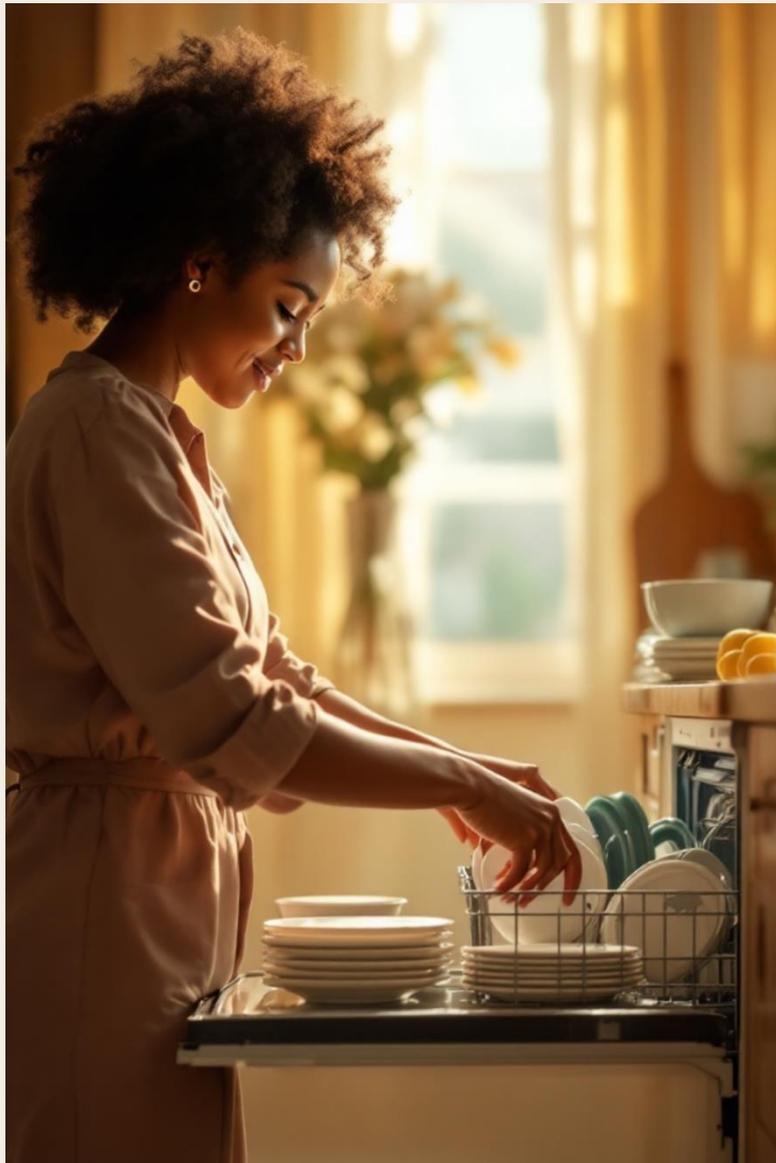
Consumer
Voices



Yeah. Usually, when my children or my husband loads the dishwasher,

METHODOLOGY

Dishwashing, An Up-Close Method



Method

AI-moderated ethnographies and diary experience studies
In-context, show-and-tell video walk-throughs of a real load
Two-part interview: load → *pause* → return post-cycle

Sample

n=91 completed interviews across diverse households
Skewed female (76%), reflecting women remain primary organizers of cleaning routines
Age ranged from 21 to 79 years old

Core Idea Topics

The dishwasher is a **household practice** (rules, compromises, hacks, and work before and after)

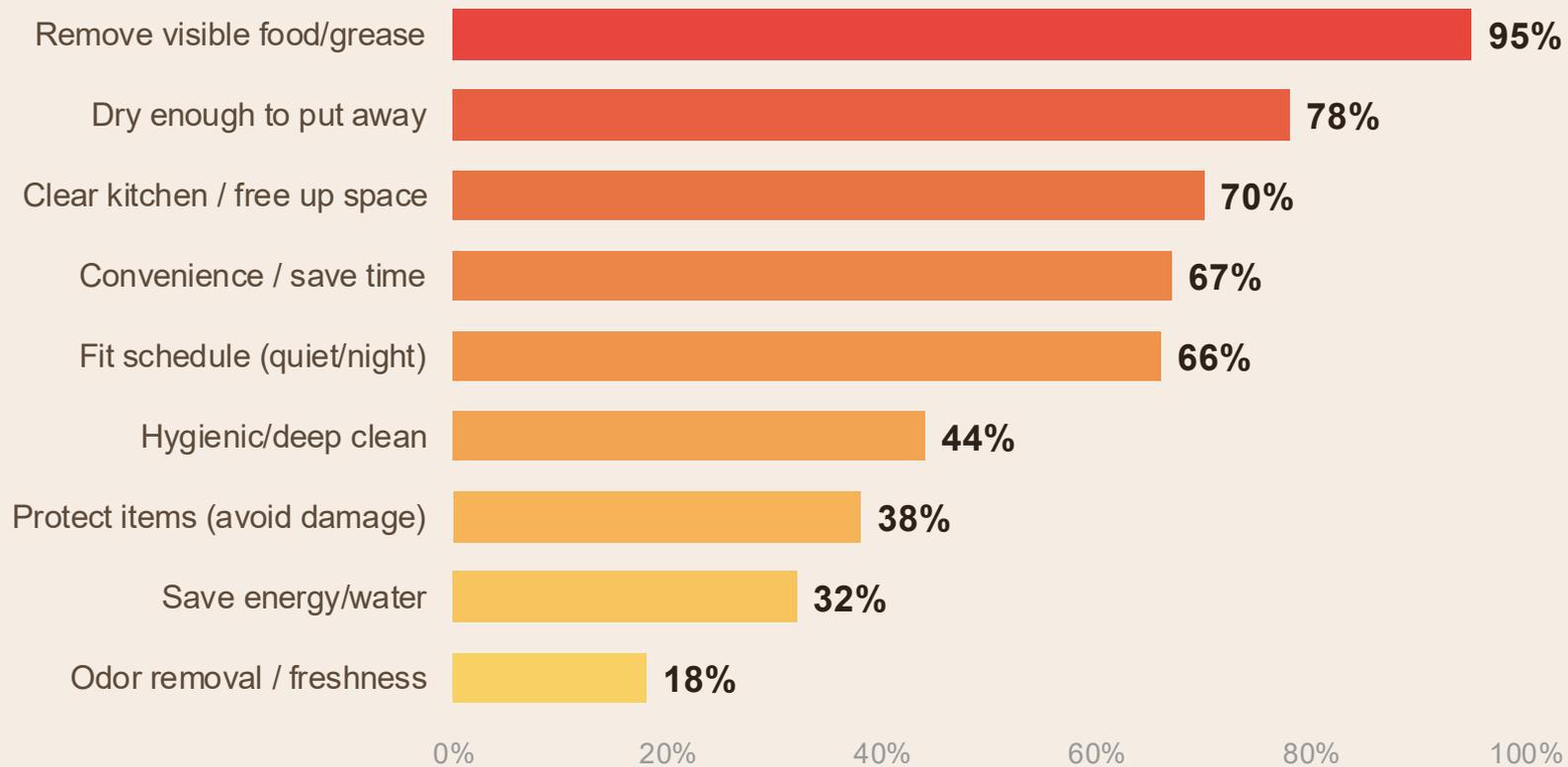
Ethnographic Lens

“A Load” is a **Social + Material Performance**

JOBS-TO-BE-DONE

What a “Successful Run” Needs to Deliver

Cleaning is necessary but not “sufficient”.
Convenience, schedule fit, and kitchen order are nearly as important.



The baseline expectation → dishes must come out looking clean

Plastics are the main failure point → towel-drying undermines the convenience promise

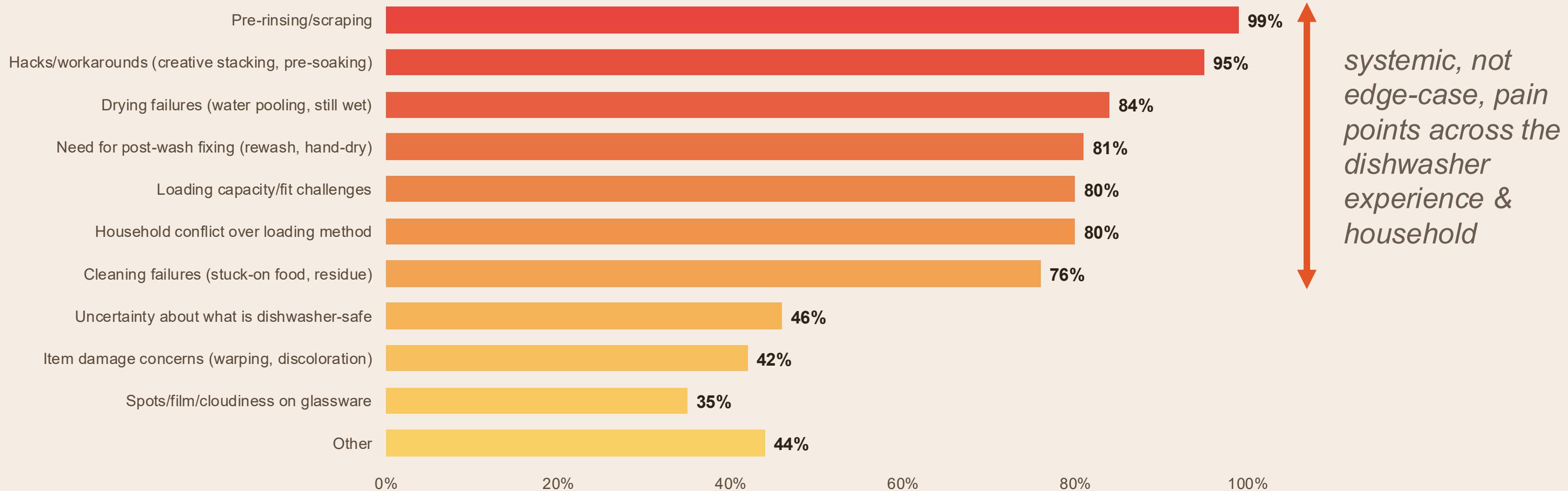
The dishwasher restores kitchen order → clearing the sink and counter is a key motivator

Households build dishwasher runs around daily rhythms → quiet night cycles are essential

DESIGN FRICTION

Key frictions, failures, and workarounds across the cycle

Near-universal pain points that span front-end prep through post-wash handling.



Found in 91 of 91 interviews · 698 mentions

FRICION THEMES

What's Driving the Pain

Behind the frequency numbers, four underlying themes explain the root causes of friction across the dishwasher cycle.

Front-End Labor

“Do I *have* to rinse/scrape?” is the central question driving time cost and frustration before the cycle even begins.

Fit & Geometry Constraints

Awkward items and rack layout limitations mean workarounds become standard operating procedure, not occasional exceptions.

End-State Reliability Gap

Cleaning is usually acceptable — but drying failures and residue consistently drive post-wash fixing behaviors.

Household Coordination

“The right way” rules create interpersonal conflict and re-loading behaviors, adding a social layer to a mechanical task.

OVERVIEW

The 5 Main Insight Platforms



FINDING 1

Pre-rinse is the “first” hidden labor

People manage risk before the machine even runs — calibrating effort, scraping, and rinsing as a form of insurance.



FINDING 2

Loading is “kitchen Tetris”

Spatial reasoning, household rules, and improvised hacks combine every single load cycle.



FINDING 3

Hacking is common

People want to maximize the load and enhance performance.



FINDING 4

Detergent focus only

Performance + convenience + cost — but no wider solution vision.



FINDING 5

Drying creates post-wash work

Especially plastics — pooling water leads to towel-drying, air-drying, and rework before items can be put away.



FINDING 6

Behavioral Archetypes

1. Tetris Maximizers
2. Routine Pragmatics
3. Protective Pre-Rinsers
4. Shared-Chore Negotiators



FINDING 1

Pre-Rinse Is the First “Hidden Labor”

The most common lived tension: **“Is the dishwasher a cleaner... or a finisher?”**

Pre-rinse behavior reveals deep uncertainty about what the machine can actually handle - and who bears the cost of that uncertainty.

1

Habit-Driven Rinsing

Most participants routinely pre-rinse dishes before loading, driven by upbringing habits and desire for first-time clean results

2

Machine Performance Concerns

Key motivations: avoiding residue on dishes, preventing clogs, eliminating odors, and supporting optimal detergent performance

3

Selective Pre-Treatment

Pre-rinsing decisions vary by food type, soil level, and timing; lighter loads often loaded as-is in a situational approach

4

Growing Trust in Machines

A minority skip pre-rinsing, trusting dishwasher capability to save time and water—signaling evolving trust in machine cleaning

Implications

Consumer
Voices



So in terms of the dishes that I kind of pre rinse

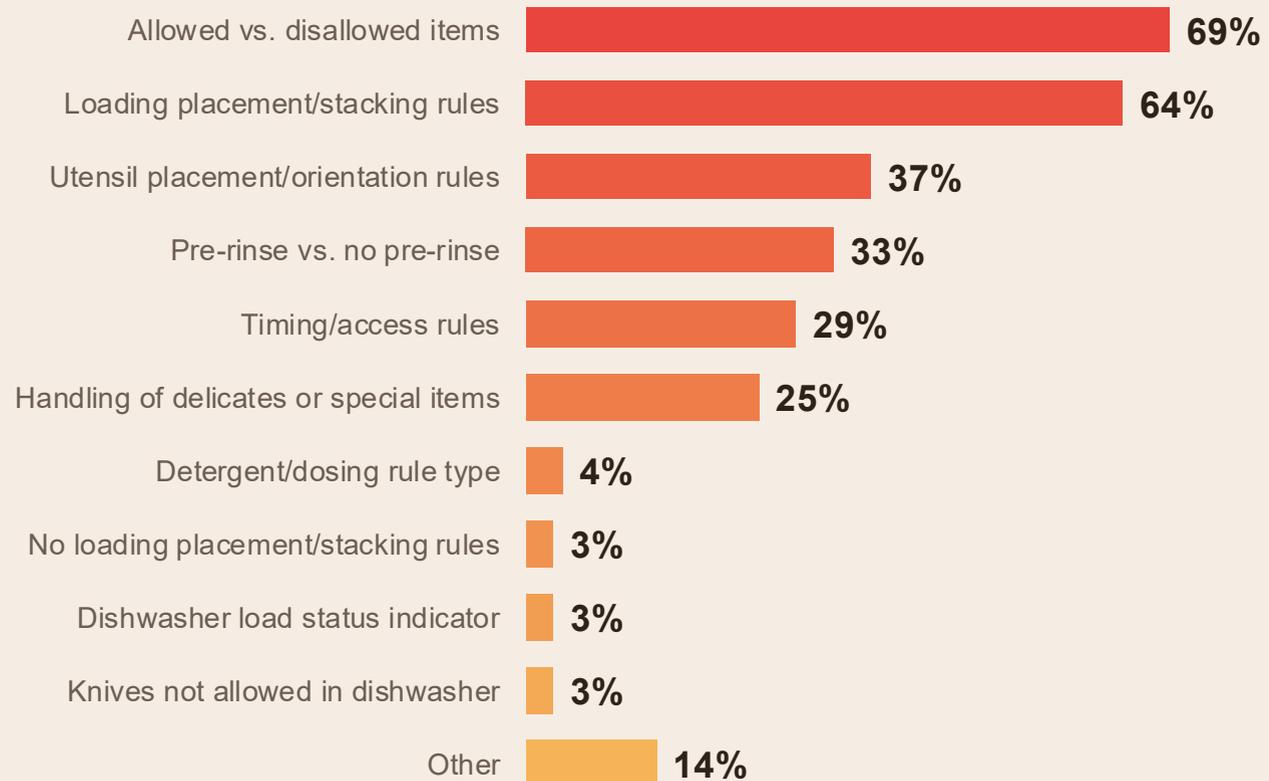
FINDING 2

Loading Is “Kitchen Tetris”

Rule-making shows up as a way to reduce uncertainty and assert control over shared equipment. Loading rules are among the most common sources of household friction - and the most personal.

Household Dishwasher Rule Types

Found in 91 of 91 interviews | 263 mentions



IN THEIR OWN WORDS



"...compromise between Tetris-ing and not overstuffing it..."

Loading is not just spatial — it's social. Rules encode household values and ongoing negotiations.



69%

Have rules about what can and cannot go in



64%

Have placement or stacking rules

Implications

Consumer
Voices

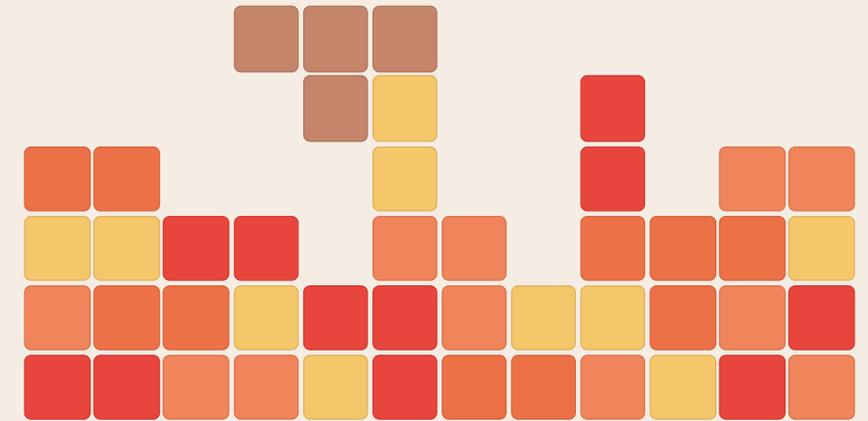


Yes. I ran out of room on the bottom for so I

FINDING 2

People Feel They Master Success

Loading technique seen as the single most influential factor for clean outcomes: more the machine or detergent.



Strategic Spacing

Proper spacing and avoiding overcrowding are seen as the #1 technique for ensuring all surfaces get reached by water jets.



Pre-Wash as Skill

Knowing when and how much to pre-rinse is considered an expertise — participants view it as part of their loading mastery.



Rack Placement Logic

Item-specific placement rules (bowls down, cups angled) reflect learned spatial reasoning that participants take pride in.



Machine Can't Compensate

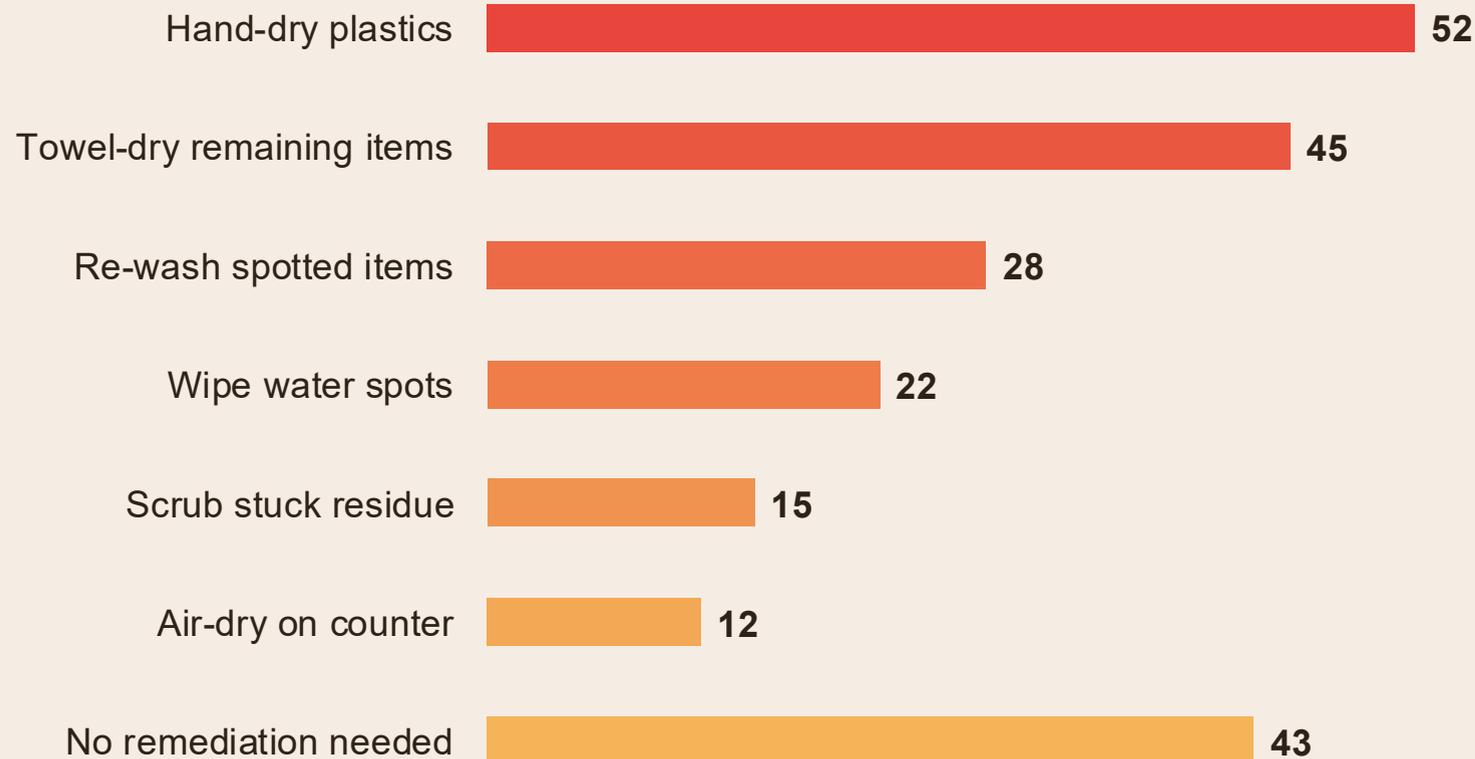
Even high-performing machines or detergents cannot overcome poor loading — technique is seen as the ultimate variable.

FINDING 5

Post-Wash Fixing Is Systemic

Remediation after a cycle: widespread and normalized. The dishwasher's job doesn't end when the cycle ends, households complete the job manually.

Post-Wash Actions (% of Households)



IN THEIR OWN WORDS

"Fine means I only had to hand-dry a few things."

Households have learned to expect imperfection and built repair routines to compensate.

57%
Need post-wash remediation

8/10
Rate results "as expected"

Implications

Consumer
Voices



Alright, guys. So it just got finished up.

FINDING 6

Post-Wash Friction Is Underserved

1 Main Detergent Used Exclusively

The majority use only a main dishwashing detergent, typically all-in-one pods or tablets, with no additional products such as rinse aid, salt, or other additives.

**76%**

Only uses detergent

2 Rinse Aid as the Only Add-On

When additional products are used, rinse aid is the most frequent choice — cited for preventing water spots, improving drying, and enhancing shine.

**only 22%**

Uses rinse aid

EXECUTIVE TAKEAWAYS

Implications For Sector Stakeholders

For each sector strategic priorities — each grounded in observed frictions from the ethnography.



SECTOR 1

Dishwasher Manufacturers

Win on put-away readiness (dry plastics, less pooling) and make loading less fragile.



SECTOR 2

Detergent Brands

Format convenience is king (pods), but whitespace exists in drying-support systems — rinse aid uptake is low.



SECTOR 3

Cookware & Storage

Reduce "dishwasher-safe ambiguity"; design for cleanability + drainage.



SECTOR 4

Utilities

Eco messaging only lands when it doesn't risk outcomes — rewash/towel-dry is perceived as inefficiency.



SECTOR 5

Smart Home

The killer feature is status certainty (clean/dirty/dry-ready), not remote start.



SECTOR 6

Retailers

Merchandise solutions (bundles by problem) and lean into value-seeking where credible.

METHODOLOGICAL IMPLICATIONS

Ethnographies in the Field

1 Access & Recruitment

Getting access to the actual kitchen is a hurdle from the start

2 Observer Effect

Participants clean up before visits; natural kitchen behavior is hidden

3 Time, Cost & Occasion

Behavioral dynamics often occur outside the observation window

4 Data Overload

Video, audio, notes, photos — hard to distill clear themes

5 Interpretation Bias

Ethnographic interpretation depends heavily on the researcher

6 Limited Generalizability

10–20 households: deep insight, but not prevalence

7 Capturing Tacit Behavior

Automatic habits are hard to articulate or observe

8 Translating Insights

Rich narratives → stakeholders need decisions, not observations

METHODOLOGICAL IMPLICATIONS

AI and ethnographies are a match

Study Logistics



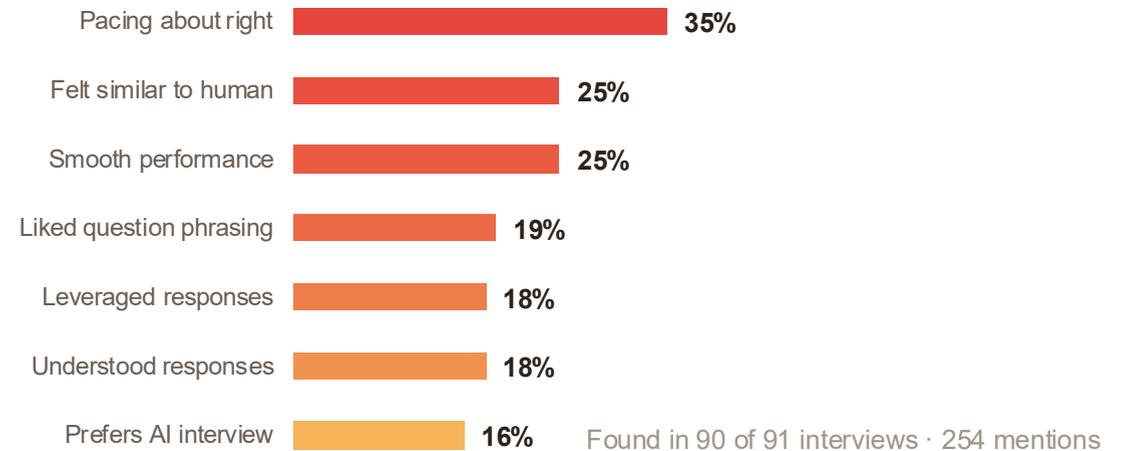
2 days vs **4–5 months** traditional mobile ethnography

10x **lower cost** than mobile ethnography

60 hrs of interview **data** generated

91 interviews · **55 questions** · 43 open-ended · 12 open-ended

Comparison to Human Moderator



97%



Rated Excellent or Very Good

3% rated 3. No poor ratings.

25%



Felt Similar to Human

Pacing, follow-ups, and conversation flow felt natural. Many preferred AI over live interviews.

METHODOLOGICAL IMPLICATIONS

Brands Are Under-Reported in Self-Reports

Video-based AI interviews capture actual behaviors, exposing mismatches between what participants claim and what they do.

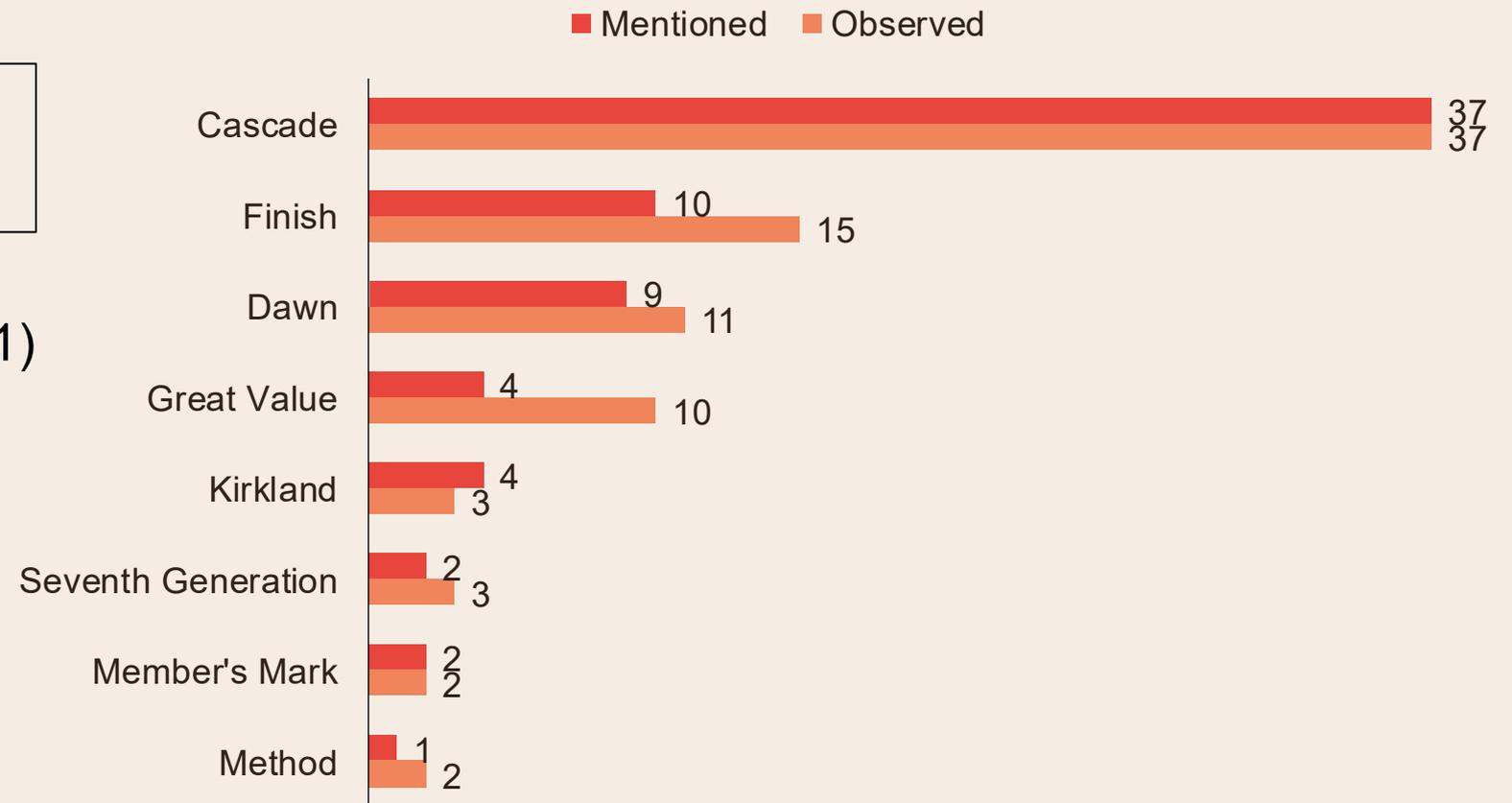
Multi-modal video insights reveals blind spots

Self-reported brands in **70%** of interviews (64/91)

Platform detected brands in **85%** (77/91)

revealing a **20% gap in reported vs observed**, especially for smaller brands.

Detergent Brand: Mentioned vs. Observed



Thank you

Want to connect for a meeting or demo?

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