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# How to Conduct a Heuristic Evaluation



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**Summary:** Step-by-step instructions to systematically review your product to find potential usability and experience problems. Download a free heuristic evaluation template.

A **heuristic evaluation** is a method for identifying design problems in a user interface. Evaluators judge the design against a set of guidelines (called heuristics) that make systems easy to use.

*(For more information about how and why this tool was developed, read Jakob Nielsen's 1994 article, "[The Theory Behind Heuristic Evaluations](#)".)*

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## Choosing a Set of Heuristics

A heuristic evaluation can be conducted with any set of heuristics. To assess usability, we recommend [Jakob Nielsen's 10 usability heuristics](#) — a set of high-level guidelines based on an understanding of human behavior, psychology, and information processing. For specialized domains or types of usability assessments, you may consider using other domain-specific ones in addition.

## When to Conduct a Heuristic Evaluation

Heuristic evaluations are useful for identifying glaring problems in an interface. That interface can be just about anything that users will interact with — including prototypes, physical products, [games](#), [virtual reality](#), or [voice interfaces](#). The method can be particularly helpful early in the design process.

Heuristic evaluations are **useful for stretching a limited UX research budget**, because they help you find likely issues without having to test with participants.

However, **heuristic evaluations cannot replace user research**. User-experience design is [highly contextual](#). To design good experiences, you'll still need to test with actual users. But heuristic [evaluations can complement your team's research](#) work; for example, conducting a heuristic evaluation in preparation for an upcoming usability test might help you identify the elements of the design that you should target during testing.

Conducting heuristic evaluations is also a good way to **develop strong UX instincts**. If you're new to UX, consider using heuristic evaluations as a way to train yourself to catch common usability issues. Practice

conducting these evaluations on many different types of products — whether you actually work on them or not.

## Step 1: Prepare for a Heuristic Evaluation

### Choose and Train Your Team

Heuristic evaluations work best when performed by a group of people, not just by one evaluator. This is because each individual (no matter how experienced or expert) is likely to miss some of the potential usability issues. Ideally, **three to five people should independently evaluate** the same interface.

Teams conducting their first heuristic evaluation will need a bit of **training and preparation** before they begin. Start by asking each person to read and understand the [heuristics](#).

Next, consider doing a **practice round** with a simple design as a group. You might conduct a collaborative evaluation of a weather app, for example. The point of this practice round is to ensure that everyone on the team understands what they're expected to do during an evaluation (more details on this in step 2.)

### Decide How to Document Evaluations

Your evaluators will need a place to collect their observations. You might use:

- **Our heuristic-evaluation workbook:** Each team member can fill out a printed or digital version of this interactive PDF. [Download](#)

[our free workbook](#) to use it in your evaluation.

- **A spreadsheet:** Evaluators can capture one observation per line, along with its corresponding heuristic.
- **A digital whiteboard:** In a tool like Miro or Mural, create separate workspaces for each evaluator. Include screenshots of the interface and have evaluators place sticky notes directly on the elements they're analyzing.

If you choose to use a shared document or space (like Google Sheets or a digital-whiteboard tool), **your team members should not see each other's evaluations until their own evaluation is complete.** The point of having multiple evaluators is to capture independent observations, so you don't want team members to influence each other.

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# Heuristic Evaluation Workbook

EVALUATOR:

DATE:

PRODUCT:

TASK:

1

## Visibility of System Status

The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.

- Does the design clearly communicate its state?
- Is feedback presented quickly after user actions?

Issues

Recommendations

2

## Match Between System and the Real World

The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.

- Will user be familiar with the terminology used in the design?
- Do the design's controls follow real-world conventions?

Issues

Recommendations

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The interactive [heuristic-evaluation workbook](#) includes a reminder of each of the 10 heuristics, with space for the evaluator to write down issues and recommendations. (Designed by [Kelley Gordon](#) and [Kate Moran](#).)

## Set the Scope

The **narrower the scope**, the easier and more detailed the evaluation will be. For your team's first heuristic evaluation — or if you have a large, complex product — consider keeping your scope narrow to make things manageable.

Narrow your scope by looking at:

- One task at a time
- One section of the site or app
- One user group, if you have many with diverse needs
- One device type (desktop, tablet, mobile)

## Step 2: Evaluate Independently

Next, each team member should evaluate the interface on their own.

It's important to timebox this activity to make it manageable. We recommend reserving about **1–2 hours**.

## Become Familiar with the Product

Let's consider a simple ecommerce example to explain how the evaluation might work.

**Product:** Banana Republic site

**User Group:** Shoppers

**Task:** Buying a shirt

**Device:** Mobile

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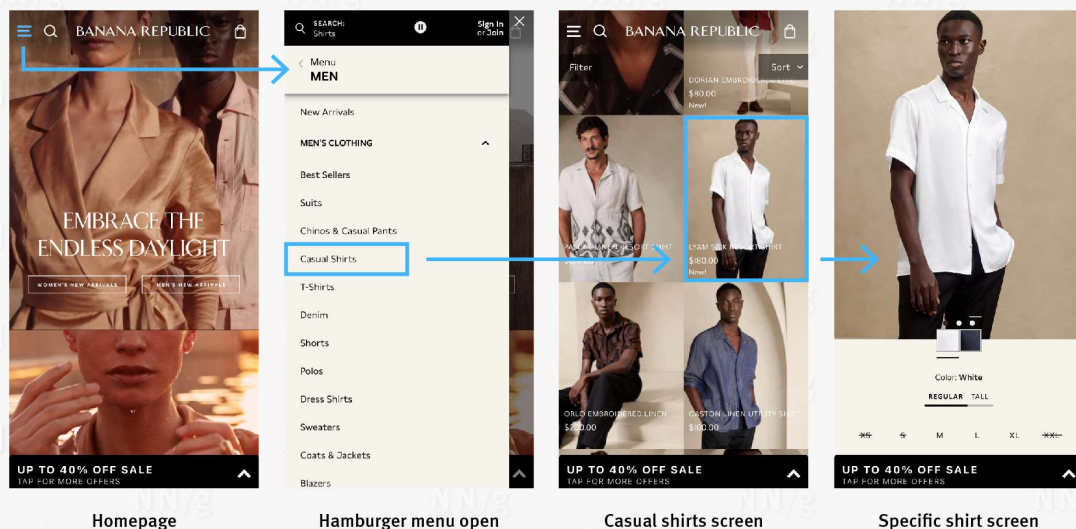
# Heuristic Evaluation Workbook

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Evaluator: **KATE**  
 Date: **JULY 2023**  
 Product: **BANANAREPUBLIC.COM**  
 User Group: **SHOPPERS**  
 Task: **BUYING A SHIRT**  
 Device: **MOBILE**

Fill in the details of the product you'll be reviewing at the top of your workbook. Include the specific user group, task, or device, if you've narrowed your scope.

## Task: Buying a Shirt



*Bananarepublic.com: A possible flow leading to a product page*

Start the evaluation by moving through the interface as if you're a user trying to complete a task. If you aren't already familiar with this product, **go through the task once just to learn** the system, without attempting to evaluate anything.

## Look for Issues

Once you feel comfortable and familiar with the product, go back through the task a second time. In this second pass, look for **design elements, features, or decisions that violate one of the 10 heuristics** — in other words, they don't achieve that goal or follow that guideline. If you're using our heuristic-evaluation template, those will be the things you write down in the appropriate *Issues* section.

For example, one of the 10 heuristics is [aesthetic and minimalist design \(#8\)](#). This heuristic recommends that the visual design of interfaces should direct users' attention and help them achieve their goals. The product should not feel visually overwhelming or distracting.

Banana Republic's [listing pages](#) layer the product details (name, price, discount) in white text directly on top of the product images. As a result, the page feels cluttered, and the text is difficult to read. This is an example of how the visual design fails to support the user's task (choosing and buying a shirt).





*Banana Republic site: The text layered over images violates heuristic #8 — aesthetic and minimalist design.*

In the heuristic evaluation workbook, we might write “Text overlaps with product images on listing pages” in the issues column for heuristic #8. If a recommendation for a fix comes to mind, you can note that in the second column under *Recommendations*. For example, “Improve product-detail visibility — maybe add a solid or semi-opaque background behind text.”

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## Heuristic Evaluation Workbook

**8**

### Aesthetic and minimalist design

Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

- Is the visual design and content focused on the essentials?
- Have all distracting, unnecessary elements been removed?

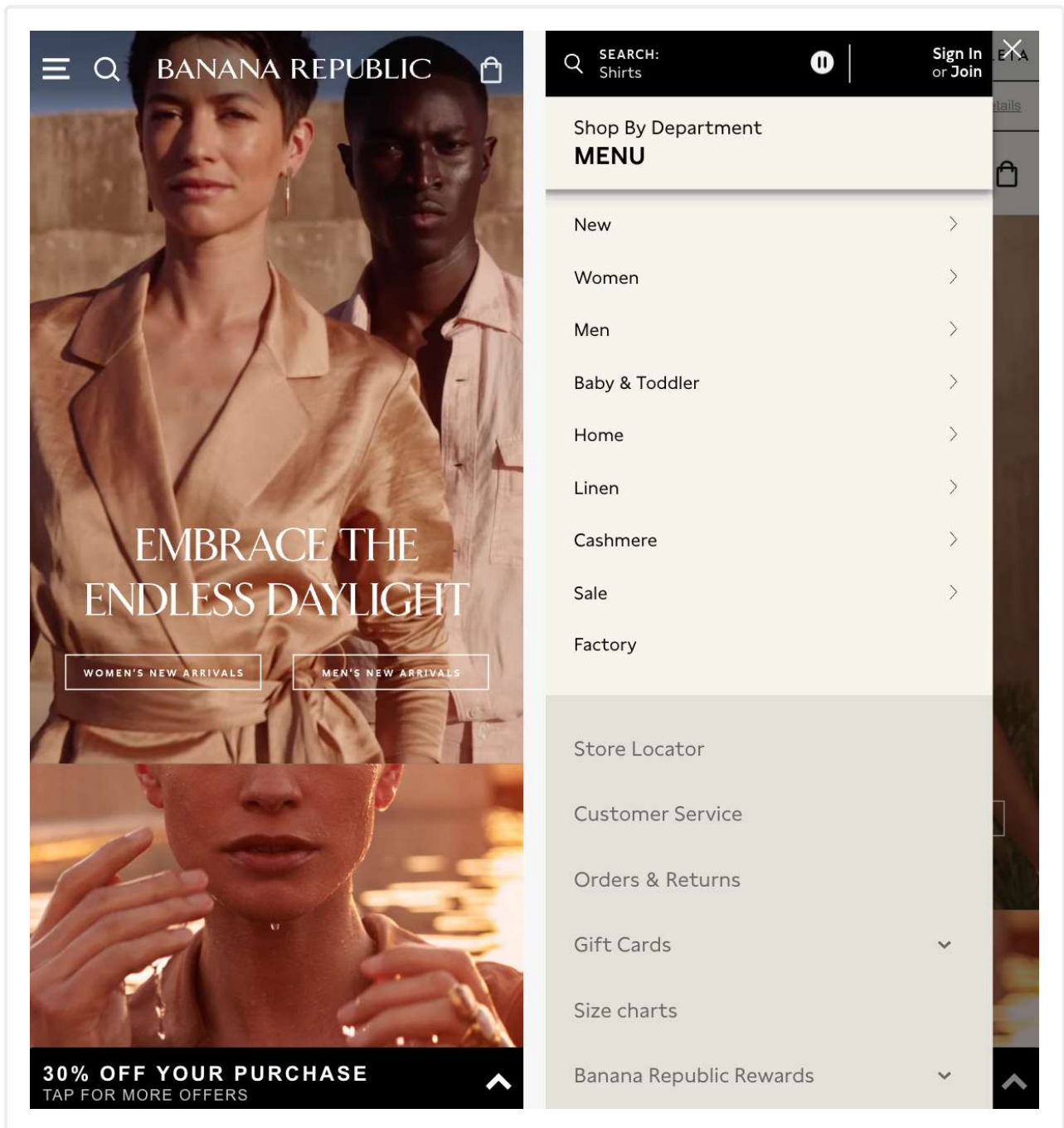
Issues	Recommendations
TEXT OVERLAPS WITH PRODUCT IMAGES ON LISTING PAGES	IMPROVE PRODUCT DETAIL VISIBILITY — MAYBE ADD A SOLID OR SEMI-OPAQUE BACKGROUND BEHIND TEXT

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*The heuristic evaluation workbook contains space to write down potential issues and recommendations for each of the 10 heuristics.*

Another heuristic is [recognition rather than recall \(#6\)](#). As much as possible in the design, we want to reduce the burden on people's short-term memory by keeping important information visible on the screen.

We might notice that Banana Republic is using a [hamburger menu](#) as their global navigation — their navigation categories are hidden behind a menu icon in the upper left-hand corner. We might decide to document that as a violation of heuristic #6.



*Hamburger menus — like the one Banana Republic’s site uses — do violate the recognition-rather-than-recall heuristic, because they hide important navigation choices, and the user has to remember to open them up to see the available options. However, that doesn’t mean that a hamburger menu was the wrong design choice in this example.*

This example brings up something important to note: **just because a design choice violates a heuristic, that does not necessarily mean it’s a problem** that needs to be fixed — [it depends](#) on the particular context and the available alternatives. [Hamburger menus do violate heuristic](#)

#6, but, in mobile designs, that [tradeoff](#) is often necessary due to reduced screen space.

This is a great illustration of why **heuristic evaluations are not a replacement for user research**. We still need to observe our users as they are using our products to fully understand design problems.

## Step 3: Consolidate Identified Issues

Once all your team members have performed their independent evaluations, it's time to synthesize the issues. [Affinity diagramming](#) (clustering similar issues) on a physical or virtual whiteboard can work well.

Discuss with your team:

- Where do we agree? Where do we disagree?
- Which issues seem most detrimental to the overall experience?
- Which issues could be most problematic for our organization or business goals?
- Which issues do we need more data on? Which should we prioritize in our next [usability test](#)?
- What steps can we take in the short and long term to address these problems?

## Exceptions

There are exceptions to these heuristics, but they're typically rare and based on context. Heuristics are guidelines, not laws, and there are

some cases where you may have to violate a heuristic in pursuit of another goal (as was the case with Banana Republic's hamburger menu).

But, [as Jakob Nielsen says](#), "you should not bet that your design is one of the few exceptions." Before deciding to intentionally violate a usability heuristic, conduct user research to ensure your rule breaking is justified.

## Conclusion

Heuristic evaluations become easier the more you conduct them. With practice, you'll need to rely less and less on the actual heuristics. You'll start to develop UX instincts, so you can quickly recognize potential usability problems.

## References

Nielsen, J., and Molich, R. (1990). Heuristic evaluation of user interfaces, *Proc. ACM CHI'90 Conf.* (Seattle, WA, 1-5 April), 249-256.

Nielsen, J. (1994). Heuristic evaluation. In Nielsen, J., and Mack, R.L. (Eds.), [Usability Inspection Methods](#). John Wiley & Sons, New York, NY.

Nielsen, J., and Landauer, T. K. 1993. A mathematical model of the finding of usability problems. *Proceedings ACM/IFIP INTERCHI'93 Conference* (Amsterdam, The Netherlands, April 24-29), 206-213.

## Free Downloads

## [Heuristic Evaluation Workbook](#) (PDF)

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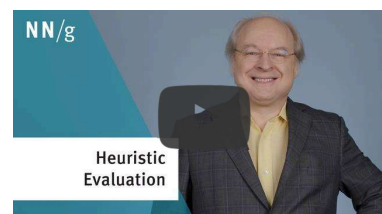
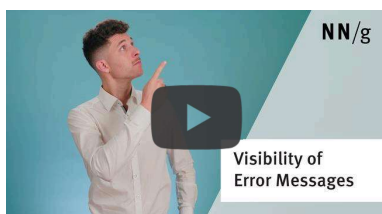
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