

Heuristic Evaluation

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WHAT IS IT?

The heuristic evaluation is a method proposed by Jacob Nielsen (1994) for reviewing desktop applications for potential usability issues. The process has evolved over time but essentially involves experts critiquing an interface for compliance with ten design heuristics (design guidelines):

1. Visibility of system status
2. Match between system and the real world
3. User control and freedom
4. Consistency and standards
5. Error prevention
6. Recognition versus recall
7. Flexibility and efficiency
8. Aesthetic and minimalist design
9. Recognise, diagnose and recover from errors
10. Help and documentation

WHY DO YOU NEED IT?

The method has some useful pros:

- Predicts potential usability problems.
- Reasonably cheap – does not require user recruitment.
- Useful in reviewing early prototypes, but also alongside usability testing.

WHEN DO YOU NEED IT?

Generally early on, but can also commonly used to review an existing application.

HOW DO YOU DO IT?

Preparation

1. Prepare a paper or interactive prototype.
2. Provide the heuristics to be reviewed against – adapt if necessary, for example if it's a mobile application, you may need to consider the device system features.

3. Recruit at least three UX experts.
4. Prepare instructions and reporting forms, and decide on an issue severity rating, e.g.
 - I. *Critical* – cannot complete task
 - II. *High* – task can be completed, but with difficulty
 - III. *Medium* – problem has minor effect on usability
 - IV. *Low* – subtle issue can be left for future enhancement
5. Nielsen's intention was for an exhaustive evaluation. I'd recommend a more task-focused approach: focus on areas of concern. Ensure you prepare these tasks ahead of the evaluation.

The Evaluation

6. Each expert works alone. They will check if each screen/feature violates a heuristic.
 - If task-based, compliance checked at each stage.
 - If exhaustive it is recommended that there are two review passes of the flow and elements of each screen.
7. The expert records the problem, its location (context), the heuristic violated and the severity of the issue.

Analysis

8. At the end of the evaluation each evaluator provides a record of their predicted usability problems.
9. Group/match similar problems (to determine frequency of the noted violation).
10. You should then rate the severity – do you agree with the rating made by the evaluator?
11. Finally use the findings to determine possible fixes/recommendations.

EXAMPLE DOCUMENTATION

You can set up a simple spreadsheet for evaluators to record their issues.

Issue Number	Description	Location	Heuristic Violated	Severity	Comments
1	Inconsistent fonts	All pages	H4	Medium	Creates a confusing page hierarchy

WANT TO KNOW MORE?

View Nielsen's original heuristics with full descriptions of what each represents.

<https://www.nngroup.com/articles/ten-usability-heuristics/>