ADR Manager - Evaluation Results Participants

| | Role | Years of Professional Experience | Experience with ADRs | Familiar ADR formats | Experience with MADR | Experience with ADR tooling | Experience with web-based ADR Manager | Task Completion Time (without extension) | Task Completion Time (with extension | |
|------------|--|----------------------------------|-------------------------|-----------------------------------|---------------------------|---|--|--|--------------------------------------|--|
| P1 | Professor | 12 years | 4 years | MADR | 4 years | text editor | experience from the original ADR Manager study | 13 minutes | 14 minutes | |
| P2 | Professor, Software architect | 27 years | 21 years | Y-statements, MADR | involved in the creation | ADMentor, text editor | experience from the original ADR Manager study | 8 minutes | 13 minutes | |
| P3 | PhD student | 6 years | no practical experience | none | none | none | experience from the original ADR Manager study 13 minutes | | 16 minutes | |
| P4 | Scientific Researcher, PhD student | 8 years | no practical experience | Nygard template, Y- statements | no practical experience | theoretical research on current ADR tools | on current experience from the original ADR 15 minutes** Manager study | | 12 minutes** | |
| P5 | Scientific Researcher, Project Leader | 4.5 years | 5 years | MADR | 5 years, used in projects | tool for rendering ADRs nicely | none | 9 minutes | 7 minutes | |
| P 6 | Software Architect | 7 years | 7 years | Y-statements | no practical experience | Decision Architect, no experience in the industry | experience from the original ADR Manager study | 12 minutes | 8 minutes | |
| P7 | Cloud Architect | 10 years | 7 years | MADR | 5 years, used in projects | no practical experience | experience from the original ADR Manager study | 14 minutes | 11 minutes | |
| | | | | | | | Average Task Completion Time (minutes): | 11,5 | 11,5 | |
| | | | | | | | ** time not included in calculation due to additional support during the evaluation | | | |

ADR Manager - Evaluation Results Statements

| | | Statements | | | | |
|---|---|--|---|--|--|--|
| | Usability | | Functionality | | | |
| Efficiency | Understandability | User Interface (Webviews) | Existing Features | Feature Suggestions | | |
| One can work well with the extension, extension is easy to use (7) | Extension could be used without prior introduction to the extension | The UI is clear, pleasing, engaging (5) | Explicitly highlighting errors using a linter is a nice feature (4) | A single option in the list of considered options should also be highlighted as an error | | |
| Manageable, well considered functionality (7) | Severity levels of the linter are good | It is easy to familiarize themselves with the UI (3) | Tooltips for ADR fields are good (3) | ADR editors: Add more validations | | |
| ADR editors could be used nicely in meetings (2) | The ADR editor guides the user well from the problem to the solution | The icons feel native (in the context of VS Code) | Basic Editor: Message regarding optional fields with values is nice (2) | Duplicate warning when adding options | | |
| ADR editors are preferred over raw Markdown (2) | Unsure where to specify the location to save a new ADR (4) | ADR editors: The toggle for switching between ADR editor modes is easy to find and very accessible | Features of the extension are very well integrated (2) | Main webview: Use a tree view for ADRs where folders can be expanded/collapsed | | |
| Clicking on an option is a fast way to choose an option | Unclear that each have their own input field (3) | The UI can be matched nicely with the MADR template | Generally, automatically choosing the first added option is good | Main webview: Add a filter option to only show specific ADRs | | |
| Basic Editor can be used for quickly create the basic structure of an ADR | Arrows for expanding options should be reversed (3) | Basic Editor Mode: The rendering of options is nice | Clicking on options to choose is user friendly | | | |
| Raw Markdown may be faster | ADR editors: Extension should give more information on where/how to enter information (2) | ADR editors: Fonts and sizes of the elements are good | Arranging options via drag and drop is intuitive | | | |
| | Label for dragging options is too short/needs more explanation | Main webview: The font of the ADR Manager logo is different from the other font | Validation of user input is a nice feature | | | |
| | The ADR editor and the raw Markdown editor are inconsistent in terms of showing errors in the ADR | Professional Editor Mode: When an option is collapsed, the 'Title' label is redundant and distracting | The ADR editors only saving changes upon clicking 'Create ADR' or 'Save ADR' is a good feature | | | |
| | The effect of rearranging options is not clear | ADR editors: Input fields are sometimes hard to see depending on the chosen VS Code theme | Basic Editor is redundant | | | |
| | Label for choosing an option is not precise enough | Basic Editor Mode: Message regarding optional fields having values may become too large | The ADR editors should not require a chosen option in order to be able to create/save an ADR as a decision | | | |
| | It may be confusing to be redirected to the main webview after creating a new ADR | Main webview: The 'Delete' button is placed in a dangerous spot | The label 'Add Option' itself should also be clickable | | | |
| | Having the ability to open the raw Markdown editor after creating/editing an ADR is unexpected | The icon to delete items should be consistent throughout the extension (e.g. use trash bin for deleting options as well as list items) | Professional Editor: The option container should immediately render with an empty title input field upon adding a new option | | | |
| | | Main webview: List overview of the ADRs may quickly become too large and unclear in practice | The extension should let the user open the rendered Markdown preview instead of opening the raw Markdown file upon creating or editing an ADR | | | |

ADR Manager - Evaluation Results

System Usability Scale

| | P1 | P2 | P3 | P4 | P5 | P6 | P7 | Average | SUS Score Range | Grade | Percentile Range |
|--|------|------|------|------|----|------|----|---------|--------------------|-------|---------------------|
| 1. I think that I would like to use this system frequently | 4 | 5 | 4 | 5 | 4 | 3 | 5 | 4,29 | 84.1 - 100 | A+ | 96 - 100 |
| 2. I found the system unnecessarily complex | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1,43 | 80.8 - 84.0 | Α | 90 - 95 |
| 3. I thought the system was easy to use | 4 | 4 | 5 | 5 | 5 | 4 | 4 | 4,43 | 79.9 - 80.7 | A- | 85 - 89 |
| 4. I think that I would need the support of a technical person to be able to use this system | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 1,14 | 77.2 - 79.8 | B+ | 80 - 84 |
| 5. I found the various functions in this system were well integrated | 4 | 3 | 5 | 5 | 4 | 4 | 4 | 4,14 | 74.1 - 77.1 | В | 70 - 79 |
| 6. I thought there was too much inconsistency in this system | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1,71 | 72.6 - 74.0 | B- | 65 - 69 |
| 7. I would imagine that most people would learn to use this system very quickly | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4,86 | 71.1 - 72.5 | C+ | 60 - 64 |
| 8. I found the system very cumbersome to use | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1,00 | 65.0 - 71.0 | С | 41 - 59 |
| 9. I felt very confident using the system | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 4,71 | 62.7 - 64.9 | C- | 35 - 40 |
| 10. I needed to learn a lot of things before I could get going with this system | 1 | 2 | 2 | 5 | 1 | 1 | 1 | 1,86 | 51.7 - 62.6 | D | 15 - 34 |
| SUS Score | 87,5 | 87,5 | 87,5 | 82,5 | 90 | 87,5 | 95 | 88,2 | 0.0 - 51.6 | F | 0 - 33 |
| Grade (according to the Sauro-Lewis CGS) | A+ | A+ | A+ | Α | A+ | A+ | A+ | A+ | | | |