

# Base4NFDI User Study Procedure

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This document provides an overview of the procedure of user studies in Base4NFDI. To ensure the usability and accessibility of the service, user studies are planned during the first five months of the Integration Phase. The user studies will be carried out by TA2 based on availability and team requirement, and the service teams are only required to have a supporting role. The primary objective is to validate the effectiveness and intuitiveness of the user interface, identify friction points, and incorporate direct feedback from representative end users. The user studies are optional but strongly encouraged to ensure the usability and accessibility of the services. TA2 will provide a necessary briefing during the initial stage of the integration to inform the service teams of the goal and purpose of the user studies. If the service team decides that the user study is not necessary, it is possible to opt out after the briefing with TA2. The timeline is shown below in the table:

## Timeline for user research in integration phase

Month 1–3	Initial meeting to discuss a strategy concerning usability, including a user study focusing on usability and user experience.	service team: provision of information  TA2: consultation on planning and study design
Month 3-5	Study plan of user study (if applicable)	TA2: provide the service with study design
Before month 24	Execution of user study (if applicable)	service team: provision of study subjects

		TA2: conduct study and write report
After user study	Ongoing support for adoption (if applicable)	TA2: schedule meetings as needed with the service team to provide advice on adoption

The service team is expected to perform the following functions in order to support the user studies:

1. Provide access to the software or website to be tested,
2. Schedule an initial briefing session with TA2 to introduce the functionalities of the software or website to be tested, where TA2 will inform the team in more detail about the aim and the procedures of the study,
3. Provide contact to users of the software or website to be tested,
4. Provide follow-up support for TA2 during the user studies regarding the software or website to be tested.

### **Initial meeting:**

By **month 3**, the service teams should schedule an initial meeting with TA2 in order to demonstrate the current status and functionality of the software to be tested. This session provides TA2 with a first impression of the product's development stage and allows the team to present any known usability challenges or open questions. During the meeting, TA2 will assess the feasibility of conducting a user study and discuss potential areas of focus, such as accessibility, intuitiveness of workflows, or specific features that require validation. The service team is encouraged to communicate their priorities, for example whether they wish to better understand how new users approach the system or how expert users handle advanced tasks. The goal of this meeting is to establish a shared understanding of objectives and constraints so that TA2 can design a study plan tailored to the needs of the service team.

#### *Purpose of the meeting*

- Present the current status and functionalities of the software to TA2.
- Identify areas where usability questions exist or where feedback is particularly needed.
- Explore the feasibility and scope of a user study.

#### *TA2's role*

- Provide an initial assessment of whether and how a user study can be conducted.
- Clarify methodological options (e.g., usability testing, interviews, surveys).
- Offer examples of past studies to help the service team visualize the process.

#### *Service team's role*

- Share the software or platform in its current state (demo, test access, or prototype).
- Highlight pain points, anticipated challenges, and specific questions they want answered.
- Provide background on the intended user group and their typical tasks.

#### *Outcome of the meeting*

- A shared understanding of objectives and expectations.
- Agreement on whether a user study will be pursued.
- A timeline for next steps leading toward a study plan.

### **Study plan:**

By **month 5**, TA2 will provide the service team with a structured study plan. This plan will specify the **scope of the study**, including the number of participants, participant selection criteria, the detailed procedure, and a draft of interview or survey questions. The study plan will also outline the timeline for execution, resources required, and the intended method of data collection (e.g., observation, screen recordings, think-aloud protocols, or post-task questionnaires). TA2 will ensure that the plan aligns with usability and accessibility standards, while also reflecting the service team's specific research questions. The service team will be asked to review the plan, confirm the number of users they can provide, and suggest any refinements to the study questions to ensure relevance to their service context.

#### *Content of the study plan*

- Number of participants required and criteria for participant selection.
- Description of study procedure (tasks, scenarios, and tools to be used).
- Draft interview or questionnaire items.
- Timeline and duration of the study sessions.
- Methods for data collection (e.g., observations, screen recordings, think-aloud protocols, surveys).
- Ethical considerations, such as informed consent and data protection.

#### *TA2's role*

- Prepare the study plan based on the information gathered in the initial meeting.
- Ensure that the plan follows usability and accessibility standards.
- Adapt the design to the service team's specific requirements and research questions.

### *Service team's role*

- Review the plan for feasibility within their context.
- Confirm how many users they can provide and in what timeframe.
- Suggest refinements to the procedure or questions to ensure relevance.

### *Outcome of the study plan*

- A finalized, agreed-upon protocol ready for execution.
- Clear responsibilities for TA2 and the service team.

### **Execution of study:**

After the service team has reviewed and approved the study plan, the execution phase begins. The service team is expected to **recruit and provide the required number of users** as indicated in the study design and to facilitate access to the software or test environment. TA2 will then carry out the study, which typically involves asking participants to complete a set of representative tasks within the software. During the sessions, TA2 may record the user's interactions, collect real-time observations, and conduct short follow-up interviews to capture user impressions, difficulties, and suggestions for improvement. The collected data will be systematically analyzed to identify usability barriers, inefficiencies, and opportunities for design enhancements. Following the study, TA2 will prepare a structured report summarizing methodology, findings, and recommendations, and may also offer a dedicated debriefing session to explain the outcomes in detail to the service team.

### *Preparation*

- Service team provides TA2 with access to software, documentation, and necessary support.
- Service team ensures that the required participants are recruited and scheduled.
- TA2 finalizes study materials and logistics.

### *Conducting the study*

- Participants perform realistic tasks with the software (e.g., onboarding, completing core workflows, using advanced features).
- TA2 observes interactions, records processes, and captures user feedback.
- Follow-up interviews or questionnaires are conducted to gain deeper insights into user experience.

### *Data collection and analysis*

- Identify usability barriers, confusing interfaces, or workflow inefficiencies.

- Gather both qualitative feedback (user impressions) and quantitative metrics (completion rates, time on task, error rates).
- Ensure findings are linked to specific design elements for actionable improvements.

#### *Post-study deliverables*

- TA2 provides a structured report with:
  - Study methodology and participant demographics.
  - Key findings and observed usability issues.
  - Recommendations for improvement, prioritized by impact.
- Optionally, TA2 organizes a debriefing session to explain results in detail and answer questions.