

Guide to identifying appropriate UX methods

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INTRODUCTION

Involving both customers and users in a user-centred development process and creating the best user experience possible for a given product – for some user researchers this is already a reality; for others it remains a difficult task. Due to the large number of often complex UX methods, it is understandable that for many user researchers the path to the right UX method is not always immediately clear.

This guide offers concise guidelines to quickly assess the general suitability of UX methods for your research project. The guide contains a brief description of the most common UX methods in a condensed form, summarising their typical areas of application, special features, strengths and weaknesses.

You will also learn about the four key selection criteria and core questions that help you identify quickly and easily which UX methods are appropriate at which stage of the product development process, and what type of results you can generate.

In addition to this guide, you will also receive as a bonus:

- ▶ A printable chart showing the different phases in the product development process, including the four criteria for identifying suitable UX methods
- ▶ A printable spreadsheet of UX methods that clearly summarises the typical areas of application, and strengths and weaknesses of the respective methods

Happy reading!

1 The four criteria and key questions for identifying suitable UX methods

Which research methods are most suitable for generating the most useful insights within UX projects? It's a good question, and a seemingly difficult one at that. Essentially, identification of suitable UX methods is based on four simple criteria and core questions that build on each other:

The four most important criteria and core questions

1. Phase in the development process –
Where am I currently?
2. Formulation of question –
What is it that I want to find out?
3. Goals and project results –
What type and depth of knowledge do I need?
4. Qualitative vs. quantitative –
Which methods deliver the best insights?

1.1 Phase in the product development process

The first crucial factor is the phase of the product development process in which you are currently – because not every research method is suitable for every stage. So ask yourself at the very beginning: 'What stage am I at right now?' Are you in the idea, concept or design phase for the new development of a digital product? Or are you in the process of maintaining an already launched product and want to optimise it?

The four phases of the product development process



The four phases of the product development process

1.2 Formulating the question

After you have identified the current phase of the product development process, the second key question follows: What exactly am I trying to find out? Let's assume that you already have a number of hypotheses about user needs or usability for your product. These hypotheses will ultimately lead to specific questions.

Example questions for each phase of product development

Idea / analysis	Concept	Design	Ongoing operation
<p>What is the market potential of our product idea?</p> <p>What are our users' general re-quirements?</p> <p>Which use cases must my MVP cover?</p>	<p>Which concept variant will be best received by users?</p> <p>Which features will have the greatest impact?</p> <p>How do I prioriti-se product ideas effectively?</p>	<p>How do I ensure a successful redesign?</p> <p>Which design will be more popular with users?</p> <p>How do I esta-blish a usable style guide?</p>	<p>How do I syste-matically optimi-se my KPIs?</p> <p>What are the reasons be-hind cancelled purchases?</p> <p>Where do we stand compared with our com-petitors?</p>

Note: The more specifically your hypothesis-driven questions are defined, the easier it will be to assign suitable UX methods to your project.

1.3 Goals & project results

What exactly would you like to achieve with your research project or product development in general? Do you want to understand the needs of your users better and develop personas for a better collective insight? Do you want to explore the market potential of a new product or business idea to minimise innovation risks? Would you like to find out how you can use the strengths of your relevant competitors to your advantage?

The possibilities are endless. Think about where you want the path to lead you.

1.4 Qualitative vs. quantitative UX methods

If you have hypothesis-driven, specific questions based on your goals and your current phase in the product development process, you are almost ready to start assessing the suitability of UX methods for your project. But first, we will discuss why and how a distinction is made between qualitative and quantitative methods.

The main differences between qualitative and quantitative UX methods are the observation methods, the type and extent of user researcher influence, and the type of insights and results generated.

In addition, some UX methods can be considered hybrid since they have both qualitative and quantitative properties. Depending on the focus of the research, qualitative and quantitative methods can also be combined; e.g. to validate knowledge gained about the behaviour of users (qualitative) with reliable figures and data (quantitative).

Direct comparison of the characteristics of qualitative and quantitative UX methods:

	Qualitative	Quantitative
Sample size	Fairly small sample size (approx. 10-50 participants)	Larger sample size for statistically reliable results (from 50 participants)
Type of observation	Direct observation of behaviour by a UX researcher	Indirect observation through data acquisition and analysis tools
Direct influence by a UX researcher	The UX researcher can ask the user questions at any time during application of the method.	The UX researcher cannot ask the user any questions during application of the method.
Type of findings	Answers the 'why'; i.e. the reasons behind the behaviour that leads to a certain effect.	Answers the 'what/how much/how often/how large/how strongly'; i.e. the efficiency areas and the degree of efficiency.
Type of results	Behavioural analysis (needs, motivators, concerns, problems etc.)	Hard numbers and data
Data analysis	Not mathematical	Mathematical analyses
UX methods	<ul style="list-style-type: none"> • In-depth interviews • Focus groups • Field studies • Expert review • Lab usability test 	<ul style="list-style-type: none"> • Online surveys • Virtual eye tracking • A/B testing • Click tracking and analysis

Hybrid

Hybrid methods

- Online/crowd usability test
- Card sorting
- Diary studies

2 The most common UX methods – in a nutshell

2.1 In-depth interviews

In-depth interviews are individual discussions with members of the target group. They are used to reveal users' core needs, motivating factors and concerns, which in turn can be used to derive the added value of the product/tool and the concept and design requirements.

Type	Qualitative
Areas of use	Understand, describe and become acquainted with the user. Create personas and customer journey maps. Define use cases, scenarios, define touchpoints, MVP requirements, assess market potential.
Special feature	Can be done in person, by phone or video call.
Strengths	Through targeted questioning, it is possible to gain a deep understanding of the person, their motives, problems and challenges.
Weaknesses	Demands a high level of interview skill on the part of the UX researcher. No validity due to the low number of interviews (additional statistical validation required).

[LINK: Learn more about in-depth interviews](#)

2.2 Focus groups

Focus groups are moderated discussions with up to 10 participants; their aim is to obtain a variety of user opinions on a particular subject. In order to better evaluate the results, the discussions are recorded with a video camera and/or a note-taker.

Type	Qualitative
Areas of use	Understanding, describing and becoming acquainted with the user. Creating personas and customer journey maps. Defining use cases, scenarios, customer journey, defining touchpoints, MVP requirements. Assessing market potential.
Special feature	Particularly suitable for studies in the early idea/analysis phase in order to gain insights into the required features of the product.
Strengths	Uses group dynamics to creatively generate new perspectives, opinions and ideas.
Weaknesses	Individual opinions can get lost in the group; group gravitates towards the opinion leaders.

[LINK: Learn more about focus groups](#)

2.3 Online surveys

Participants complete an individually tailored questionnaire online. Online surveys are suitable for quantification and validation of qualitative study results, for example. The statistical data enables a precise description and comparison of the target groups on the basis of mean values, proportions, correlations, etc. Differences between groups can be tested for statistical significance.

Type	Quantitative
Areas of use	Validate hypotheses, test advertising effectiveness.
Special feature	Can be carried out at any location and across all devices (desktop and mobile), immediate availability of data, diverse analysis options.
Strengths	Provides statistically reliable results, allows explorative analysis, insights about sub-groups, relatively fast results.
Weaknesses	Not so suitable for generating hypotheses.

[LINK: Learn more about online surveys](#)

2.4 Diary studies

These are long-term studies in which participants record their thoughts, opinions, attitudes and needs about the use of a product in everyday situations. Diary studies provide the opportunity to record changes in usage behaviour over time.

Type	Hybrid
Areas of use	Record of the long-term use and optimisation potential of a product.
Special feature	Record of changes in usage patterns over time.
Strengths	Captures information on usage habits and changes in usage.
Weaknesses	Requires a comparatively large amount of time and effort.

2.5 Field studies

The UX researcher observes directly how users and customers search for, try out, buy and use the product under real conditions. Among other things, field studies allow detection of undiscovered innovation potential, thus establishing decisive competitive advantages.

Type	Qualitative
Areas of use	Testing and evaluating physical products to optimise the user experience.
Special feature	Find, use and buy a physical product; e.g. in a retail shop.
Strengths	Captures real, authentic user experiences.
Weaknesses	During covert observation, subjects may feel observed and behave differently.

2.6 Card sorting

Card sorting is useful for the redesign and optimisation of navigation structures to ensure that relevant content from on-line shops, websites, apps and software can be found quickly. Test users define the top navigation category and optimise the names of the navigation options, grouping related options together. The result is a navigation structure that is understandable from the user's point of view, which improves the user experience.

Type	Hybrid
Areas of use	Development of user-friendly navigation for websites, online shops, apps and software.
Special feature	Maps the users' mental category and concept systems.
Strengths	Possible to combine qualitative and quantitative data. Requires only a small number of users.
Weaknesses	Without card sorting software, documentation and evaluation of the results is very time-consuming. Online card sorting makes the evaluation easier, but there is no way to observe the behaviour of participants or clarify comprehension questions.

2.7 Expert review

In an expert review, usability experts analyse websites and apps using established usability and design principles in order to identify weaknesses and to discover potential for optimisation. Usability experts use their knowledge to provide specific solutions for optimisation or redevelopment of the product.

Type	Qualitative
Areas of use	‘When usability tests are not possible. Suitable for complex user interfaces.’
Special feature	Delivers comprehensive analyses of all relevant conversion factors, such as design, content, usability, etc.
Strengths	Combines the use-case-driven use of the interface with the experience and expertise of UX experts.
Weaknesses	No ‘real’ user feedback. Some usability problems will be found only by real users; thus, combination with a usability test with test users is recommended.

2.8 Lab usability test

In a lab test, UX researchers uncover usability problems by directly observing and questioning users. The client can follow the test from an observation room. When combined with eye tracking, it also reveals which areas of websites or apps attract the most attention.

Type	Qualitative
Areas of use	Test interfaces, products, prototypes, designs.
Special feature	Can be easily combined with eye tracking.
Strengths	Holistic observation of users and their behaviour. Users' problems are better understood through targeted enquiries.
Weaknesses	Artificial usage environment in which users may behave differently.

2.9 Online/crowd usability test

Participants test online shops, websites, apps, etc., directly from home in their natural environment. The screen and the voice of the user thinking out loud are recorded via a tool to uncover weak points and potential for optimisation in the user experience.

Type	Hybrid
Areas of use	Test prototypes and user interfaces (websites and apps).
Special feature	'Up to 90% cheaper than traditional lab usability tests with the same results.'
Strengths	Holistic observation of users and their behaviour. Users' problems are better understood through targeted enquiries.
Weaknesses	Artificial usage environment in which users may behave differently.

2.10 Lab eye tracking

Laboratory eye tracking measures users' eye movements to determine whether relevant messages and interaction elements are perceived by users or whether unimportant elements distract from important ones. Eye tracking is often combined with a classic lab usability test.

Type	Qualitative
Areas of use	For determining which elements are seen in the interface and receive the most attention.
Special feature	Shows whether important elements are adequately perceived.
Strengths	Allows detailed analysis of eye movement and behaviour.
Weaknesses	Eye tracking alone does not allow conclusions to be drawn as to WHY a respondent has or has not seen an element on the screen. Evaluating the results is very time-consuming.

2.11 Virtual eye tracking

Unlike laboratory eye tracking, which is much more complex, the results of virtual eye tracking are simulated by modern software tools. The results obtained after a few seconds are accurate to over 90% compared with laboratory eye tracking, and therefore represent a cost-effective alternative.

Type	Quantitative
Areas of use	Landing page and home page tests.
Special feature	Shows the visual perception and attention during the first seconds.
Strengths	Results are equivalent to a lab eye-tracking study. Cheaper than eye tracking in a lab.
Weaknesses	The results from virtual eye tracking are meaningful only for landing pages and home pages. Analysing scrolling behaviour and the corresponding eye movement is rather difficult.

2.12 A/B testing

In A/B testing, also known as split testing, two or more variants of a website or tool are tested against each other to identify the version that performs best. However, in order to obtain valid results, a lot of traffic or a large group of respondents is required.

Type	Quantitative
Areas of use	Conversion rate optimisation, testing of interface variants.
Special feature	Enables an increase in conversion or turnover with the same volume of traffic.
Strengths	Quantitatively measures the behaviour and behavioural preferences of users. Statistically sound results. Can be valued on a monetary basis.
Weaknesses	'Does not provide any insight into WHY users behave, just how they behave.'

3 UX methods sorted by phase in the product development process

3.1 Diagram of UX methods

Now that you have a good overview of the areas of application and the strengths and weaknesses of the most common UX methods, the following diagram shows the different methods broken down according to their suitability for each phase in the product development process.

Table for method overview can be found on the next page →

Idea / analysis	Concept	Design	Ongoing operation
In-depth interviews (qualitative)	Card sorting (hybrid)	Lab usability test (qualitative)	Online/crowd-usability test (Hybrid)
Focus groups (qualitative)	Expert review (qualitative)	Online/crowd-usability test (Hybrid)	Lab usability test (qualitative)
Online surveys (qualitative)	Lab usability test (qualitative)	Lab eye tracking (qualitative)	Lab eye tracking (qualitative)
	Online/crowd-usability test (Hybrid)	Virtual eye tracking (quantitative)	Virtual eye tracking (quantitative)
	A/B testing (quantitative)	Experten-Review (qualitative)	In-depth interviews (qualitative)
		A/B testing (quantitative)	Focus groups (qualitative)
			Online surveys (qualitative)
			Card sorting (Hybrid)
			Diary studies (Hybrid)
			A/B testing (quantitative)
			Expert review (qualitative)

4

Summary of the key steps for selecting methods

Finally, let's review the four key criteria and questions that you can use to identify suitable UX methods for your project.

1. Product development phase – Where am I currently?

Make yourself aware of which phase you are in.
The phase will help you start to narrow down the UX methods you need to consider.

2. Formulating the question – What is it that I want to find out?

Define your hypothesis-driven questions as specifically as possible to further narrow down suitable UX methods for your project.

3. Goals & project results – What kind and depth of knowledge do I need?

Make yourself aware of what exactly you want to achieve with the research project or product development.

4. Qualitative vs. quantitative – Which methods provide the best insights?

Consult the method overview to see which observation methodology, and which type and extent of UX researcher influence generates which insights.

Of course, some real-world experience is also needed to select the right methods for your UX project quickly and reliably. But even with limited experience, an examination of these four criteria and core questions will make selecting suitable UX methods in your everyday project work much easier.

DESIGNING USER-FOCUSED PRODUCTS

TestingTime is the fastest and most modern platform for ordering test users for user research. We enable project managers and UX researchers and designers to order the test users they need in minutes. We take care of recruitment, provide a personal briefing and pay all participants.

More than 400 DACH companies recruit their test users with TestingTime in order to obtain unbiased feedback on user-focused web pages, mobile apps and physical products.