CPUX-F
Frequently Asked Questions

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UXQB

International Usability and
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Purpose

This document answers a number of frequently asked questions about the Curriculum and Glossary for the Certified Professional for Usability and User Experience – Foundation Level (CPUX-F) certification.

The questions and answers refer to the following versions of the Curricula:

- CPUX-F Curriculum in German, version 2.10 DE, dated 10. April 2014.
- CPUX-F Curriculum in English, version 2.10 EN, dated 10. April 2014.

All issues raised in this document are expected to be addressed in the next version of the CPUX-F Curriculum.

> The target group for this document are Recognized Training Providers, who can use this document to further improve their CPUX-F training.
>
> CPUX-F students are most welcome to familiarize themselves with the contents, but they should note that knowledge of the answers in this document is not required to pass the CPUX-F certification test.

For practical reasons this document is written in English. Except where otherwise noted, it applies to all CPUX-F Curricula, irrespective of language.

The UXQB welcomes further questions as well as comments on the answers. Please send your questions to info@uxqb.org

1 Affordance

This comment only applies to the German version of the Curriculum.

Comment: The German Curriculum recommends the use of the term "Affordance". Example 1 uses the synonym "Handlungsanweisung".

Is "Aufforderungscharakter" also a permissible synonym?

Answer: Yes – at least until further notice is given.

The recommended term in German is "Affordance".

2   Conformity with User Expectations (Erwartungskonformität)

Question: Section 2.4 says "Conformity with user expectations (Synonym: Consistency)." Isn't "Conformity with user expectations" more than consistency?

Answer: Yes. The Glossary lists consistency as one of the aspects of conformity with user expectations.

In the next version of the Curriculum
"Conformity with user expectations (Synonym: Consistency)" in Section 2.4 will be replaced by "Conformity with user expectations."

3 Context of Use (Nutzungskontext)

Question: Note 2 and Course note 1 in the article "Context of use" use terms that differ from those used in the definition of Context of use. For example, what is "People", "Activities", "Context" and "Technologies"?

Answer: We originally included the terms "People", "Activities", "Context" and "Technologies" to support the acronym "PACT", which is used in some textbooks, for example the textbooks by David Benyon. However, we have found that the use of these terms generates confusion.

Here's an improved version of the article in the English Glossary, which avoids the use of these terms:

Context of use	**Users, tasks, resources,** and the physical and social **environments** in which an **interactive system** is used

	Notes:
	1. The results from **observations** and **contextual interviews** are described in the **"**context of use description". This description is the basis for identifying **user needs** and tracing them back to their source.
	2. A context of use description contains the following elements:
	   a. **Users**, through **user groups** and **user group profiles**,
	   b. **Tasks**,
	   c. **Environment(s)**,
	   d. **Resources**
	3. As-is **scenarios** can be used to describe how **users** carry out **tasks** in the context of use
	
	Course note:
	1. Helpful acronym for context of use: UTER = **Users, Tasks, Environment, Resources**
	
	Examples of elements in context of use descriptions:
	1. Teenagers (users) use mobile phones (interactive system) to listen to messages (task) from their friends (social environment) while sitting on a bus (physical environment) , using headsets (resource: equipment)
	2. Secretaries (users) in a school (social environment) use Microsoft Word (interactive system) to issue certificates for students (task) in their office work place (physical environment), validating the certificates with stamps (resource: equipment).

Here's an improved version of the article in the German Glossary, which avoids the use of these terms:

Nutzungskontext	**Benutzer, Aufgaben, Ressourcen** sowie die physische und soziale **Umgebung** in der das **interaktive System** genutzt wird.
	Anmerkungen:
	1. Die Ergebnisse aus den Beobachtungen und kontextuellen Interviews werden in der "Nutzungskontextbeschreibung" dokumentiert. Diese ist die Basis für das Identifizieren von Erfordernissen bzw. deren Zurückführbarkeit auf den Nutzungskontext.
	2. Eine Nutzungskontextbeschreibung beschreibt:
	a. **Benutzergruppen** und **Benutzergruppenprofile**,
	b. **Aufgaben**,
	c. **Umgebung(en)**,
	d. **Ressourcen**,
	Szenarien, die illustrieren, was im Nutzungskontext geschieht
	Anmerkung zum Training:
	1. Hilfreiche Abkürzung: BAUR = **Benutzer**, **Aufgaben**, **Umgebung**, **Ressourcen**
	Beispiele:
	1. Jugendliche (Benutzer) verwenden Handys (interaktives System), um SMS-Nachrichten von ihren Freunden (soziale Umgebung) mittels eines Kopfhörers (Ressource: Ausrüstung) zu hören (Aufgabe), während sie in einem Bus sitzen (physische Umgebung).
	2. Sekretärinnen (Benutzer) in einer Schule (soziale Umgebung) benutzen Microsoft Word (interaktives System), um Zertifikate für Studenten auszustellen und mittels eines Stempels (Ressource: Ausrüstung) abzuzeichnen (Aufgabe). Die Arbeit findet im Büro der Schule (physische Umgebung) statt.

4   Information Architecture (Informationsarchitektur)

Question: Which specific artefacts does the Information Architect produce to document the information architecture?

Answer: Examples are

- The structure, naming and contents of the task objects and system objects
- Navigation structure

5   Interview

Question: During interviews, users often provide valuable information about the expected future system. How is this information communicated to the interaction designer?

Answer: Suggestions regarding the expected future system provided by interview participants are valuable and should be forwarded to the Interaction Designer in an orderly way. Currently, the Curriculum does not describe how to do this.

Suggestions regarding the future system can be communicated in a separate document. They can also be communicated through as-is scenarios as shown in the following example, which is an extension of example 1 in the definition of Scenarios in the Glossary:

> *John Miller is a business traveler who often takes flights in the course of a week. He prefers to take his car to the airport. But every now and then he misses a flight and then regrets not to have taken a taxi or the tram to the airport. He simply underestimates the car queues in front of the car park and the walking time to the gate.*
>
> *John suggests: "It would be wonderful if I could just pre-order a parking spot and skip the queues. If I find out that no parking spots are available, I could simply call a taxi. This would allow me to plan my time better."*
>
> *"They could also offer an express valet service, where I would simply leave my car and my keys and they would park the car for me – for a fee, of course."*

The suggestions regarding the future system provided by the interviewee during the interview can be used to describe and understand the context of use even better.

6   Navigation Structure (Navigationsstruktur)

Question 1: Is the navigation structure part of the information architecture? The article "Information architecture" does not say so while the article "Navigation structure" does.

Also, according to section 2.5, "Information architecture" is "Information architecture" (which is not particularly helpful), while "Navigation structure" is part of "Key interaction design components".

Answer: The navigation structure is part of the information architecture. We will add the necessary cross-references in the next version of the curriculum.

An improved version of section 2.5 is:

Key topics:

- Modelling the tasks to be supported

- Designing user interfaces

Concepts:

Designing user interfaces

- Information architecture
  - o Defining, structuring and naming task objects and system objects
  - o Navigation structure

- Interaction design taking into account dialogue principles
  - o Determining the structure of the user interface
  - o Determining interaction sequences

- Information design
  - o Designing the representation of all task objects in order to support the understanding of them

- Interface design
  - o Designing all parts of the user interface by selecting, combining and positioning interaction elements such as buttons, input fields and text

- Sensory design
  - o Design for human perception and a consistent and distinctive appearance

- User assistance
  - o System-initiated guidance
  - o User documentation
  - o Online help

Modeling the tasks to be supported

- Task model

- Use scenario

- Storyboard

- Wireframe

- Prototype
  - o Low-fidelity prototype
  - o High-fidelity prototype

Question 2: The definition of "Navigation structure" is: "The logical organization of the units of displayed information that comprise the user interface."

Note 2.b says "The navigation structure comprises ... The navigation elements that are used to navigate the structure, for example menus and breadcrumbs."

Does this mean that the navigation structure consists of both invisible parts (the logical organization of the units of displayed information) and visible parts (the navigation elements)?

Answer: No. The navigation structure is what is presented to the user: Presented units of displayed information and their visible logical structure including the presented navigational elements.

7 Prototype

Question 1: In our company it's common practice to bring a low-fidelity prototype to an interview. We've found that it's much easier to get users to tell us what they want when they see a prototype, which they can criticize or suggest improvements to. According to the ISO 9241-210 Figure in the Curriculum, this is not permissible because low-fidelity prototypes are not created before the design phase. Why is this?

Answer: The main purpose of a contextual interview is to gather information about users, tasks, environments and resources – that is, how work is currently done. Showing users a prototype may be suggestive and focus their attention on one particular solution, which may be wrong.

An iterative cycle where you collect data from users through observation and contextual interviews, create a low-fidelity prototype, use this prototype (which is based on user data) in subsequent interviews is acceptable.

Question 2: Does the user interface designer both design and implement prototypes?

Answer: No.

The role "interaction designer" defines and designs the interaction between humans and system based on user requirements and the context of use. Deliverables include storyboards, use scenarios, task models and styleguides.

The role "user interface designer" creates the interface on the target platform based on storyboards, use scenarios and task models. Deliverables include low-fidelity prototypes, sketches of screens, screen flow, screen workings and messages.

The role "developer", which is not part of CPUX-F, writes the code that implements the interaction based on the deliverables produced by the user interface designer.

The Figure "Responsibility of roles for key deliverables" in the Curriculum does not show this completely correctly. You can find an improved version of the Figure in the FAQ "Use scenario".

8   Requirement (Anforderung)

Comment: What is the difference between Stakeholder requirement and Organizational requirement?

Answer: Note 2 in the definition of Requirement is incorrect. It should be:

2. This glossary defines the following types of **stakeholder requirements**:
    a. **Market requirement**;
    b. **Organizational requirement**;
    c. **User requirement**.

9   Resources

Question 1: Do Resources include people?

Answer: Yes. This answer is elaborated in the answer to the following question.

Question 2: The difference between "resources" and "equipment" in the curriculum is not entirely clear. Can you please define the term equipment?

Answer: Here is an improved version of the definition of resources that clarifies the term equipment as one type of resource in the context of use.

Resources	All means required to use an **interactive system**.
	Notes:
	1. **Resources** include reusable resources (equipment, information and available human-based and system-based support) and exhaustible resources (time, human effort, financial resources, and materials).
	2. Equipment refers to hardware, software or other physical items used in conjunction with the **interactive system** while a **user** is carrying out a particular **task** with the **interactive system**. Equipment is integral to the completion of the task. Equipment does not refer to the **interactive system** itself.

10 Stakeholders (Interessenvertreter)

Question: The Curriculum says that all users are stakeholders. I have no problems understanding this.

Are all stakeholders users?

Answer: No. Example: A manager of a product development team is a stakeholder but may not be a user of the product.

11 Task

This question only applies to the German version of the Curriculum.

Question: The German definition of Aufgabe (Task) is "Aktivität die erforderlich ist, um ein Ziel zu erreichen." Is a task always just one activity?

Answer: In the next version of the CPUX-F curriculum, "Aktivität" (activity) will be replaced by "Aktivitäten" (activities).

12 Task Model (Aufgabenmodell)

Question: Does the task model describe as-is tasks or future tasks?

Answer: The task model describes as-is tasks because it is a result of the analysis. Task models used for design are based on user needs; they are beyond the scope of CPUX-F.

13 Task Object (Aufgabenobjekt)

Question 1: What is the purpose of a task object?

Answer: To enable designers to represent the key objects that users create, read, update or delete when performing tasks with the user interface.

Question 2: Please provide better, annotated examples of task objects.

Answer: Task objects depend on the task. Examples:

- Email system:
  - If a user wants to write an email, the task object is the email.
  - If a user wants to get an overview of all emails, the task object is a list of emails.

- Train ticket vending machine:
  - If a user wants to purchase a train ticket, the task objects are the ticket and the receipt.
  - If a user wants to find a connection to another city, the task object is a timetable or a travel plan.

- E-commerce website:
  - If a user wants to purchase a product, task objects are the products that the user considers, the products that the user has purchased and the bill. Price, availability, pictures of a product, etc., are attributes of the task object "product".
  - During shopping, each product in the shopping cart is a task object. Also, the collection of products in the shopping cart is one task object. The shopping cart itself is not a task object.
  - If a user wants to cancel an order, the task object is the order.

14 Storyboard

Question 1: Where does the storyboard deliverable belong in the ISO 9241-210 Figure in the Curriculum?

Answer: In the "Produce design solutions" box.

Storyboards are developed in parallel with use scenarios. They are developed before any low-fidelity prototype.

Question 2: What's the purpose of a storyboard? What data is used to develop it? Is a storyboard essentially a use scenario with graphics?

Answer: The purpose of a storyboard is similar to the purpose of a prototype: To represent all or part of an interactive system at a very early stage of design so stakeholders can analyse, discuss or evaluate it. The advantage of a storyboard over a prototype is that the storyboard communicates the interaction of the user with the future system without having to provide details about the interactive system.

The storyboard is based on data gathered during context of use analysis as well as identified user needs and derived user requirements.

A storyboard and a use scenario are similar with respect to content but they are represented differently.

15 Unattended Usability Test (Unbeaufsichtigter Usability-Test)

Question: Please explain why the Curriculum uses the name "unattended usability test". Hopefully, an "unattended usability test" is attended by at least one person: The usability test participant.

Answer: A better name is "unmoderated usability test".

The term "unmoderated usability test" is used in the CPUX-UT Curriculum. We will use this term consistently in future CPUX-Curricula.

16 Usability

Question 1: Are defects (or bugs) also usability problems? An example of a defect is "Error 404 – Page not found".

Answer: Technical defects cause usability problems, which prevent users from solving their tasks effectively or efficiently.

Technical defects should be identified and eliminated during technical quality assurance ahead of any usability test. Technical defects encountered during a usability test may overshadow important usability problems and waste precious test participant time.

Question 2: If response times are sluggish, does this affect usability? Or is usability solely about being able to figure out how the interactive system works?

Answer: Yes. Usability includes efficiency regardless of the cause of efficiency problems.

Question 3: Is "Gebrauchstauglichkeit" a correct translation of the English term "usability" into German?

Answer: According to the Begriffsliste (List of Terms) in the German CPUX-F Curriculum, the correct translation of "usability" (English) is "Usability" (German).

The "Begriffsliste Deutsch-Englisch" also contains the secondary synonym "Gebrauchstauglichkeit" for "usability". This synonym is missing in the "Begriffsliste Englisch-Deutsch". This is a mistake, which will be corrected.

17 Usability Evaluation – User Based (Benutzerzentrierte Usability-Evaluierung)

Question: What is the difference between "Usability Evaluation – User Based" and "Usability Test"?

Answer: At this time, there is no difference. The definitions are identical.

There is an error in the CPUX-F Curriculum. The definition of "Usability evaluation – user based" should be extended so it includes both "usability test" and "user survey". Alternatively, the article "Usability evaluation" should make it clear that usability evaluations can be carried out either with users (usability testing, user surveys) or without users (inspection or usability inspection).

18 Usability Test Plan

Question: When are the goals of the usability test defined?

Answer: The usability test plan should include the purpose of the usability test.

19 Use scenario (Nutzungsszenario)

Question 1: "Use case" and "user story" are commonly used terms in the UX community. How do these terms relate to CPUX terms?

Revised Answer: The terms "Use case" and "user story" are commonly used but the definitions vary. The terms are not part of CPUX-F. Both terms are related to the CPUX-F term "use scenario".

A **use case** describes how the system behaves in order to help users reach their goal. A use scenario describes how a user (persona) behaves in order to reach their goal from the user's perspective. So use scenarios and use cases are really two sides of the same coin.

Use cases are sometimes used in agile system design and development, for example SCRUM, where they are subdivided into user stories. User stories are prioritized and processed in sprints.

A **user story** describes interactive system functionality. It also includes both justification for the functionality from users' point of view and acceptance criteria.

Question 2: Does the user requirements engineer write both as-is and use scenarios?

Answer: No. The role "user requirements engineer" writes as-is scenarios. The role "interaction designer" writes use scenarios.

The Figure "Responsibility of roles for key deliverables" in the Curriculum does not show this completely correctly. Here is a revised version of the Figure:

UX Deliverable	Usability Engineer	User Require-ments Engineer	Usability Tester	Information Architect	Inter-action Designer	User Interface Designer
Project plan – UX part	✓					
Context of use description		✓				
User group profiles		✓				
Scenarios		✓ (as-is)			✓ (use)	
Personas		✓				
User needs report		✓				
User requirements specification		✓				
Information architecture				✓		
Low-fidelity prototype					✓ (design)	✓ (implement)
Styleguide					✓	
High-fidelity prototype					✓ (design)	✓ (implement)
Evaluation report (usability test report)			✓			

20 User Need (Erfordernis)

Question: In all the examples that I have seen, it is trivial to derive user requirements from user needs. Can you give me an example where the relationship is not trivial?

Answer: Here's an example:

User need:

- During a disaster in a motorway tunnel, car drivers in the tunnel must avoid breathing poisonous gases in order to survive the disaster.

Corresponding user requirements:

- Users must be able to recognize immediately that poisonous gases are present around them as soon as these have been technically detected.

- At any location in the tunnel, users must be able to detect how to get to the next rescue room.

Corresponding organizational requirement:

- The operator of the tunnel must ensure that rescue rooms are available at regular intervals throughout the tunnel. The pressure in the rescue rooms must exceed the pressure of the surroundings.

21 User Requirement

Question: The definition of "Quantitative user requirements" does not explain how you arrive at the figures in the user requirements.

Note 1 in the definition of "User requirement" says "User requirements are derived from user needs." Does this also apply to quantitative user requirements?

Answer: In principle, all user requirements are derived from user needs. In practice, user needs are not always identifiable with sufficient precision to allow derivation of precise quantitative user requirements. You may find the following tips helpful to define quantitative user requirements precisely:

- Existing systems may provide guidance.
  Users expect that the new system performs better or at least as well as the existing system.

- Some quantitative user requirements are set by stakeholders who have an interest in a specific minimum performance of the interactive system.

- Verify quantitative user requirements with users to determine whether they are reasonable.

Quantitative requirements are like budgets: Goals worth striving for, but not carved in stone.

22 Wireframe

Question: Where does the wireframe deliverable belong in the ISO 9241-210 Figure in the Curriculum?

Answer: In the "Produce design solutions" box.

23 Important changes compared to previous versions

Date, version	Change
01-02-2016, Version 2.13	Target group for this document in section 1 rephrased and emphasized.