

## H. Conventional Use Cases

### USE CASE: WRITING PROPOSAL - FINANCIAL PART

User Action	System Response
Click on spreadsheet software	Open software Asking which kind of document should be opened (empty, special type, etc.)
Click on empty document	Open empty document
Click on „File“ in the top menu	Display options
click on „used documents“	Display options
click on „proposal template budget“	Open document
Enter content into corresponding fields	Display contend in corresponding field Add up the sums
Continue the procedure until end	display contend in corresponding field Add up the sums display total expenses
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu
Click on „Print“	Print document
Click on „Save“	Save document

### USE CASE: WRITING PROPOSAL - ACTIVITY PART

User Action	System Response
Click on text processing software	Open software Asking which kind of document should be opened (empty, special type, etc.)
Click on empty document	Open empty document
Click on „File“ in the top menu	Display options
click on „used documents“	Display options
click on „proposal template Project Description“	Open document
Enter content into corresponding fields	Display contend in corresponding field
Continue the procedure until end	Display contend in corresponding field
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu
Click on „Print“	Print document

User Action	System Response
Click on „Save“	Save document

## PARTICIPANT ACQUISITION (IF NOT DONE BY RCWS OR COMMUNITY LEADERS)

### USE CASE: CREATING ONLINE APPLICATION FORM

User Action	System Response
Click on web browser	Open web browser
Enter „https://docs.google.com/forms“	Display website
Click on „empty“ under „create new form“	Create new empty form
Click on title „undefined form“	Show flashing cursor for text editing on the click location
Type in title „Application for the awareness in social media training“	Display edited content
Click in the textfield „undefined question“	Show flashing cursor for text editing on the click location
Type in first question	Display edited content
Click on „Multiple Choice Question“	Display options for answering questions
Click on choosen type of question	Display edited content
Click on „+“ - Button (add question)	Add another question Display edited content
Continue the procedure until end	Display complete form

### USE CASE: SHARING ONLINE APPLICATION FORM VIA FACEBOOK / TWITTER

This use case starts where the use case „Creating online application form“ ends

User Action	System Response
Click on „share“ - button in the top menu	Display „form share“ menu
Click on „Facebook“ - button / „Twitter“-button	Open new browser tab Display Facebook / Twitter website
Continue on social media website	Share form with followers

### USE CASE: SHARING ONLINE APPLICATION FORM VIA TELEGRAM

This use case starts where the use case „Creating online application form“ ends

User Action	System Response
Click on „share“ - button in the top menu	Display „form share“ menu

User Action	System Response
Click on „< – >“- button (link)	Display link
Click on „copy“- button (link)	Copy link
Continue in Telegram app	Share form with followers in Telegram via link

## USE CASE: SHARING ONLINE APPLICATION FORM VIA EMAIL

This use case starts where the use case „Creating online application form“ ends

User Action	System Response
Click on „share“ - button in the top menu	Display „form share“ menu
Click on „< – >“- button (link)	Display link
Click on „copy“- button (link)	Copy link
Continue in email client	Share form with contacts via email by sending link

## USE CASE: CHOOSING CANDIDATES

This use case starts where the use case „Creating online application form“ ends

User Action	System Response
Click on „replies“ in the top menu	Display „replays“ site Show overview
Click on „question“	Display answers to first question
Select question „location“ in the dropdown menu (Ocea Zone / Eden Zone / Other)	Display all the three answers
Select answer „Ocea Zone“ Click on „n answers“ - button	Display candidates who gave answer „Ocea Zone“
Continue the procedure until end	Display requested content

## USE CASE: PLANING TRAINING

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard

User Action	System Response
Click on „new“ - button	Display „create a new repository“ site
Click on text Feld beneath „Repository name“	Show flashing cursor for text writing
Enter repository name Choose bullet „Public“ Click „Create repository“ - Button	Display „Quick setup“ site
Click on "creating a new file" - link	Display new unnamed document
Enter document name Enter content of document	Display contend in corresponding fields
Click on „Commit new file“ - button	Display updated document
Continue the procedure until all documents are in the repository	Display contend in corresponding field

Use Case: Organize catering

Use Case: Recap

Use Case: Reminding participants

## USE CASE: CONDUCTING SAVED TRAINING

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard
Click on „DIY Solar Generator“ repository	Display repository
Click on „materials.md“	Display „materials.md“
Press „Ctrl + P“ for printing	Print document
Navigate back to „DIY Solar Generator“ repository	Display repository
Click on „tools.md“	Display „tools.md“
Press „Ctrl + P“ for printing	Print document

## USE CASE: INSPECTING RESOURCES

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard
Click on requested repository	Display repository
Click on „soldering.md“	Display „soldering.md“

## USE CASE: EDITING SCHEDULE / METHODOLOGY OF RESOURCES

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard
Click on requested repository	Display repository
Click on requested document	Display requested document
Click on „Edit this file“ - button	Display „Edit file“ mode
Click inside text field	Show flashing cursor for text editing on the click location
Edit parts of content	Display edited content
Select the bullet „Commit directly to the <b>main</b> branch“	Show that bullet is selected
Click on „Commit changes“ - button	Display updated document

## USE CASE: CHANGING SCHEDULE / METHODOLOGY DURING TRAINING

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website

User Action	System Response
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard
Click on „basic computer training“ repository	Display repository
Click on requested document	Display requested document

### USE CASE: WRITING DOCUMENTATION - FINANCIAL REPORT

User Action	System Response
Click on spreadsheet software	Open software Asking which kind of document should be opened (empty, special type, etc.)
Click on empty document	Open empty document
Click on „File“ in the top menu	Display options
click on „used documents“	Display options
click on „proposal template budget“	Open document
Enter content into corresponding fields	Display content in corresponding field Add up the sums
Continue the procedure until end	Display content in corresponding field Add up the sums Display total expenses (planed vs. actual) Display deviation in %
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu
Click on „Print“	Print document
Click on „Save“	Save document

### USE CASE: WRITING DOCUMENTATION - ACTIVITY REPORT

User Action	System Response
Click on text processing software	Open software Asking which kind of document should be opened (empty, special type, etc.)
Click on empty document	Open empty document
Click on „File“ in the top menu	Display options

User Action	System Response
click on „used documents“	Display options
click on „proposal template Project Description“	Open document
Enter content into corresponding fields	Display contend in corresponding field
Continue the procedure until end	Display contend in corresponding field
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu
Click on „Print“	Print document
Click on „Save“	Save document

### USE CASE: CREATING CERTIFICATES - MENTEE

User Action	System Response
Click on „certificate_mentee.pdf“	Open PDF editor software Display document
Click inside text field	Show flashing cursor for text editing on the click location
Typ in „Name of participant / training / project director / etc.“	Display edited content
Continue the procedure until end	Display contend in corresponding field
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu
Click on „Print“	Print document
Sign document	-

### USE CASE: CREATING CERTIFICATES - MENTOR

User Action	System Response
Click on „certificate_mentee.pdf“	Open PDF editor software Display document
Click inside text field	Show flashing cursor for text editing on the click location
Typ in „Name of participant / training / project director / etc.“	Display edited content
Continue the procedure until end	Display contend in corresponding field
Click on „File“ in the top menu	Display options
Click on „Print“	Display print option menu

User Action	System Response
Click on „Print“	Print document
Sign document	-

## USE CASE: TRAINING CERTIFICATION - EXTERNAL INSTITUTION

User Action	System Response
Click on web browser	Open web browser
Enter „github.com“	Display website
Click on „Sign in“	Display login page Request username / email address Request password
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard
Click on „HTML programming“ repository	Display repository
Click on requested document	Display requested document
Click on „Download“ - button	Download requested document Save in download folder
Continue the procedure until end	Download requested document Save in download repository
Open download repository	Display repository
Right click on document	Display right click menu
Select „share“ Click „Email“	Display „share“ menu Open email client Display empty email with attached file Cursor flashing in the „To“ textfield
Type email address of „national ministry of educational and cultural affairs“	Display email address
Click on „Sent email“ - button	Sent email

# I. Essential Use Cases

## USE CASE: WRITING PROPOSAL - FINANCIAL PART

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on spreadsheet software	Open software Asking which kind of document should be opened (empty, special type, etc.)		
Click on empty document	Open empty document		
Click on „File“ in the top menu	Display options		
click on „used documents“	Display options		
click on „proposal template budget“	Open document		
Enter content into corresponding fields	Display contend in corresponding field Add up the sums	Collect all expenses	Possibility to enter expenses
Continue the procedure until end	display contend in corresponding field Add up the sums display total expenses		Sum up expenses Display total number
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document		Possibility to share document
Click on „Save“	Save document		

## USE CASE: WRITING PROPOSAL - ACTIVITY PART

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on text processing software	Open software Asking which kind of document should be opened (empty, special type, etc.)		
Click on empty document	Open empty document		
Click on „File“ in the top menu	Display options		
click on „used documents“	Display options		
click on „proposal template Project Description“	Open document		
Enter content into corresponding fields	Display contend in corresponding field	Collect and describe all activities / aims	Possibility to collect description of activities / aims
Continue the procedure until end	Display contend in corresponding field		
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document		Possibility to share document
Click on „Save“	Save document		

## USE CASE: CREATING ONLINE APPLICATION FORM

Extends: Sharing online application form via Facebook / Twitter  
 Sharing online application form via telegram  
 Sharing online application form via email  
 Choosing Candidates

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „https://docs.google.com/forms“	Display website		
Click on „empty“ under „create new form“	Create new empty form		
Click on title „undefined form“	Show flashing cursor for text editing on the click location		
Type in title „Application for the awareness in social media training“	Display edited content	Label the application form	Possibility to label application form
Click in the textfield „undefined question“	Show flashing cursor for text editing on the click location		
Type in first question	Display edited content	Ask candidates questions	Possibilities to create questions
Click on „Multiple Choice Question“	Display options for answering questions		Possibilities to answer questions
Click on chosen type of question	Display edited content		
Click on „+“ - Button (add question)	Add another question Display edited content		
Continue the procedure until end	Display complete form		Display complete form

## USE CASE: SHARING ONLINE APPLICATION FORM VIA FACEBOOK / TWITTER

This use case starts where the use case „Creating online application form“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „share“ - button in the top menu	Display „form share“ menu	Share application form via Facebook / Twitter	Share application form on Facebook / Twitter
Click on „Facebook“ - button / „Twitter“- button	Open new browser tab Display Facebook / Twitter website		
Continue on social media website	Share form with followers		

## USE CASE: SHARING ONLINE APPLICATION FORM VIA TELEGRAM

This use case starts where the use case „Creating online application form“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „share“ - button in the top menu	Display „form share“ menu	Share application form via Telegram	Share application form on Telegram
Click on „< - >“- button (link)	Display link		
Click on „copy“- button (link)	Copy link		
Continue in telegram app	Share form with followers in telegram via link		

## USE CASE: SHARING ONLINE APPLICATION FORM VIA EMAIL

This use case starts where the use case „Creating online application form“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „share“ - button in the top menu	Display „form share“ menu	Share application form via email	Share application form via email
Click on „< - >“- button (link)	Display link		
Click on „copy“- button (link)	Copy link		
Continue in email client	Share form with contacts via email by sending link		

## USE CASE: CHOOSING CANDIDATES

This use case starts where the use case „Creating online application form“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „replies“ in the top menu	Display „replies“ site Show overview		
Click on „question“	Display answers to first question	See answers to question	Display answers of candidates
Select question „location“ in the dropdown menu (Ocea Zone / Eden Zone / Other)	Display all the three answers	Filter candidates after certain question	Display answers of different candidates
Select answer „Ocea Zone“ Click on „n answers“ - button	Display candidates who gave answer „Ocea Zone“		
Continue the procedure until end	Display requested content	Filter certain questions after candidates	Display candidates
Click on „replies“ in the top menu	Display „replies“ site Show overview		

This essential use case refers highly to Scenario: Participant acquisition.

## USE CASE: PLANING TRAINING

Extends: Creating Resources  
Selecting existing Resources

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „github.com“	Display website		
Click on „Sign in“	Display login page Request username / email address Request password		
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard		
Click on „new“ - button	Display „create a new repository“ site	Creating new content	Possibility to create new content
Click on text Feld beneath „Repository name“	Show flashing cursor for text writing		
Enter repository name Choose bullet „Public“ Click „Create repository“ - Button	Display „Quick setup“ site	Label the content Make it public	Possibility to name new content Provide public access to content

Continues on this point with Use Case: Creating Resources and Use Case: Selecting existing resources

## USE CASE: CREATING RESOURCES

This use case starts where the use case „Planing training“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on "creating a new file" - link	Display new unnamed document	Subdivide content into different classes	Possibility to create subclasses
Enter document name Enter content of document	Display content in corresponding fields		
Click on „Commit new file“ - button	Display updated document		
Continue the procedure until all documents are in the repository	Display content in corresponding field		

## USE CASE: SELECTING EXISTING RESOURCES

This use case starts where the use case „Planing training“ ends

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on main repository link	Display all repositories		
Browsing repositories Click on chosen repository	Display content of repository		
Navigate to requested file	display requested file	Select existing resource	Display different resources
Click on download	Display file in webbrowser		
Click on download	Open „Save as“ window		
Click on „Save“	Download file		
Navigate to newly created repository (Use Case: Planing training)	Display repository		
Click on „Add File“ - button Choose „Upload Files“	Display upload possibilities		
Click on „choose your files“ - link	Display local download folder		
Click on requested, downloaded file Click on „Open“	Upload file into repository	Adding existing resource to training	Possibility to add resource to training

## USE CASE: CONDUCTING SAVED TRAINING

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „github.com“	Display website		
Click on „Sign in“	Display login page Request username / email address Request password		
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard		
Click on „DIY Solar Generator“ repository	Display repository	Choose „DIY Solar Generator“ repository	Display repository
Click on „materials.md“	Display „materials.md“	Check needed materials and tools	Display materials and tools
Press „Ctrl + P“ for printing	Print document		
Navigate back to „DIY Solar Generator“ repository	Display repository		
Click on „tools.md“	Display „tools.md“		
Press „Ctrl + P“ for printing	Print document		

## USE CASE: INSPECTING RESOURCES

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „github.com“	Display website		
Click on „Sign in“	Display login page Request username / email address Request password		
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard		
Click on requested repository	Display repository		
Click on „soldering.md“	Display „soldering.md“	Reading certain content	Display certain content

### USE CASE: EDITING SCHEDULE / METHODOLOGY OF RESOURCES

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „github.com“	Display website		
Click on „Sign in“	Display login page Request username / email address Request password		
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard		
Click on requested repository	Display repository		
Click on requested document	Display requested document	Reading certain content	Display certain content
Click on „Edit this file“ - button	Display „Edit file“ mode		
Click inside text field	Show flashing cursor for text editing on the click location		
Edit parts of content	Display edited content	Edit content	Possibility to edit content
Select the bullet „Commit directly to the <b>main</b> branch“	Show that bullet is selected		
Click on „Commit changes“ - button	Display updated document		

### USE CASE: CHANGING SCHEDULE / METHODOLOGY DURING TRAINING

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Open web browser		
Enter „github.com“	Display website		
Click on „Sign in“	Display login page Request username / email address Request password		
Enter Username Enter Password Click „Sign in“	Verify login data Display dashboard		
Click on „basic computer training“ repository	Display repository		
Click on requested document	Display requested document	Show certain content	Display certain content

### USE CASE: WRITING DOCUMENTATION - FINANCIAL REPORT

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on spreadsheet software	Open software Asking which kind of document should be opened (empty, special type, etc.)		
Click on empty document	Open empty document		
Click on „File“ in the top menu	Display options		
click on „used documents“	Display options		
click on „proposal template budget“	Open document		
Enter content into corresponding fields	Display content in corresponding field Add up the sums	Collect all expenses	Possibility to enter expenses
Continue the procedure until end	Display content in corresponding field Add up the sums Display total expenses (planned vs. actual) Display deviation in %		Sum up expenses Display total number of expenses (planned vs. actual) Display deviation in %
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document		Possibility to share document
Click on „Save“	Save document		

### USE CASE: WRITING DOCUMENTATION - ACTIVITY REPORT

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on text processing software	Open software Asking which kind of document should be opened (empty, special type, etc.)		
Click on empty document	Open empty document		
Click on „File“ in the top menu	Display options		
click on „used documents“	Display options		
click on „proposal template Project Description“	Open document		
Enter content into corresponding fields	Display contend in corresponding field	Collect and describe all activities / aims	Possibility to collect description of activities / aims
Continue the procedure until end	Display contend in corresponding field		
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document		Possibility to share document
Click on „Save“	Save document		

### USE CASE: CREATING CERTIFICATES - MENTEE

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „certificate_mentee.pdf“	Open PDF editor software Display document		
Click inside text field	Show flashing cursor for text editing on the click location		
Typ in „Name of participant / training / project director / etc.“	Display edited content	Create certificate for certain participant	Possibility to create personalized certificate
Continue the procedure until end	Display contend in corresponding field		
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document	commit certificate to participant	Possibility to issue certificate to participant
Sign document	-	Certify authenticity	Possibility to verify authenticity

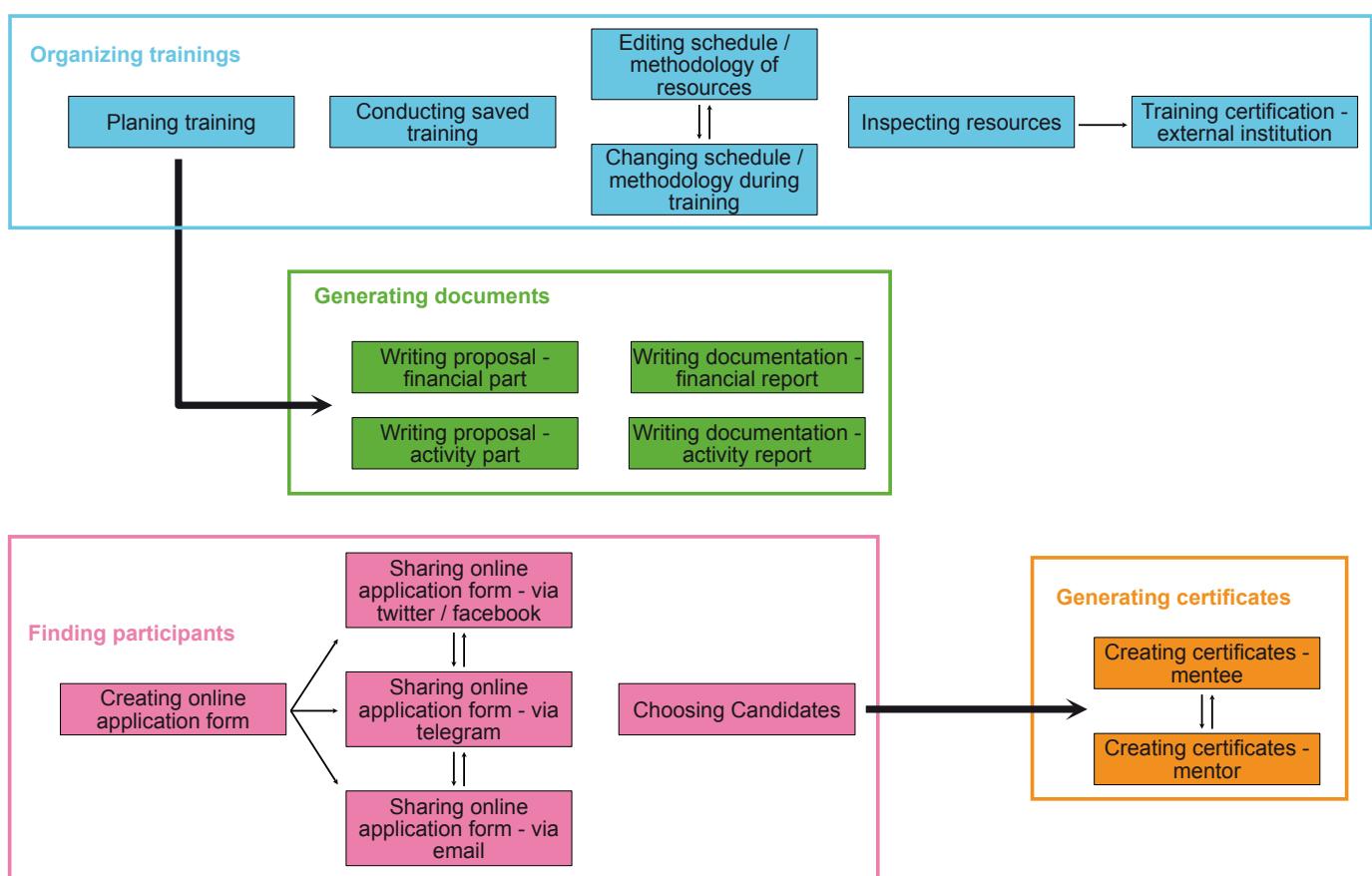
### USE CASE: CREATING CERTIFICATES - MENTOR

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on „certificate_mentee.pdf“	Open PDF editor software Display document		
Click inside text field	Show flashing cursor for text editing on the click location		
Typ in „Name of participant / training / project director / etc.“	Display edited content	Create certificate for certain participant	Possibility to create personalized certificate
Continue the procedure until end	Display contend in corresponding field		
Click on „File“ in the top menu	Display options		
Click on „Print“	Display print option menu		
Click on „Print“	Print document	commit certificate to participant	Possibility to issue certificate to participant
Sign document	-	Certify authenticity	Possibility to verify authenticity

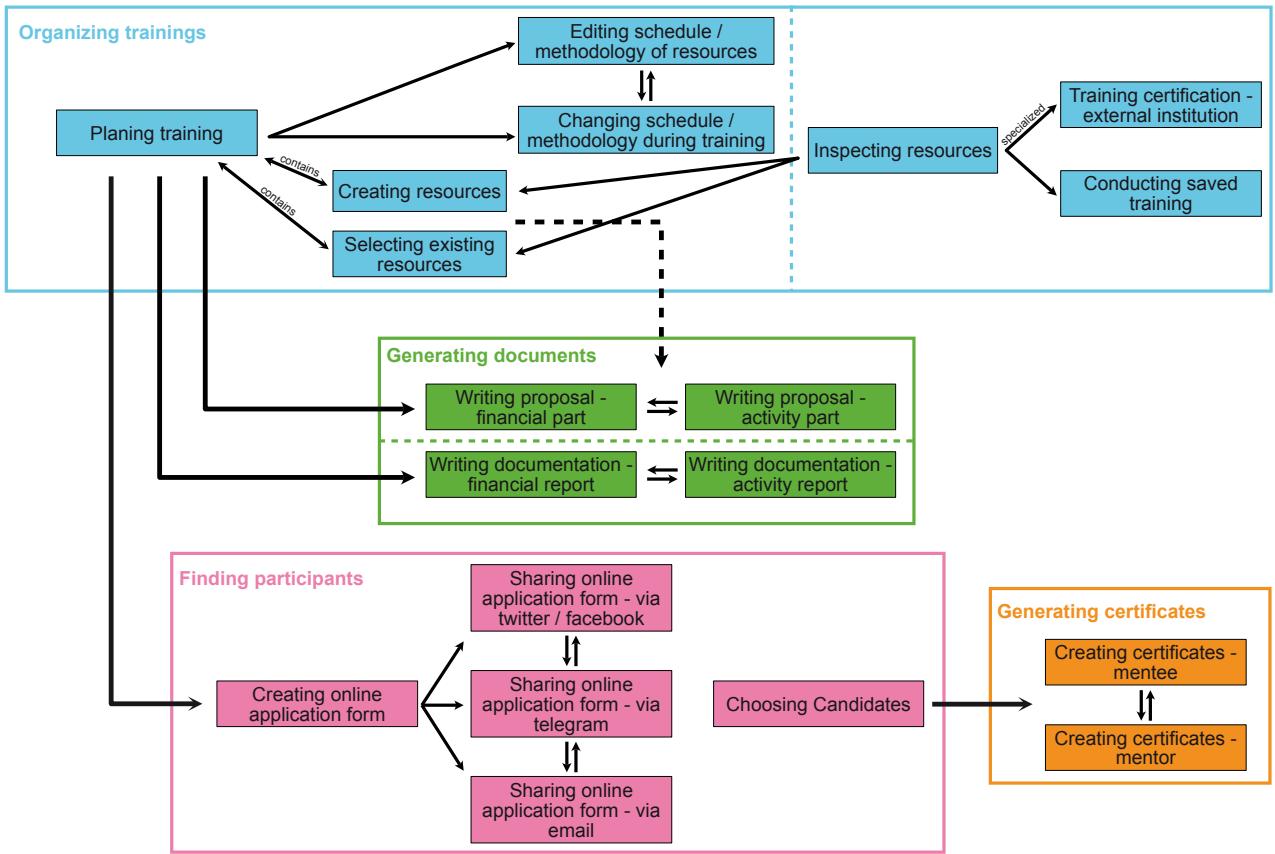
## USE CASE: TRAINING CERTIFICATION - EXTERNAL INSTITUTION

Conventional Use Case		Essential Use Case	
User Action	System Response	User Intention	System Responsibility
Click on web browser	Click on web browser		
Enter „github.com“	Enter „github.com“		
Click on „Sign in“	Click on „Sign in“		
Enter Username Enter Password Click „Sign in“	Enter Username Enter Password Click „Sign in“		
Click on „HTML programming“ repository	Click on „HTML programming“ repository	Select certain training	Display trainings
Click on requested document	Click on requested document		
Click on „Download“ - button	Click on „Download“ - button		
Continue the procedure until end	Continue the procedure until end		
Open download repository	Open download repository		
Right click on document	Right click on document		
Select „share“ Click „Email“	Select „share“ Click „Email“	Share selected training with „national ministry of educational and cultural affairs“	Possibility to share training with „national ministry of educational and cultural affairs“
Type email address of „national ministry of educational and cultural affairs“	Type email address of „national ministry of educational and cultural affairs“		
Click on „Sent email“ - button	Sent email		

## J. Use Case Map



## K. Interaction Context

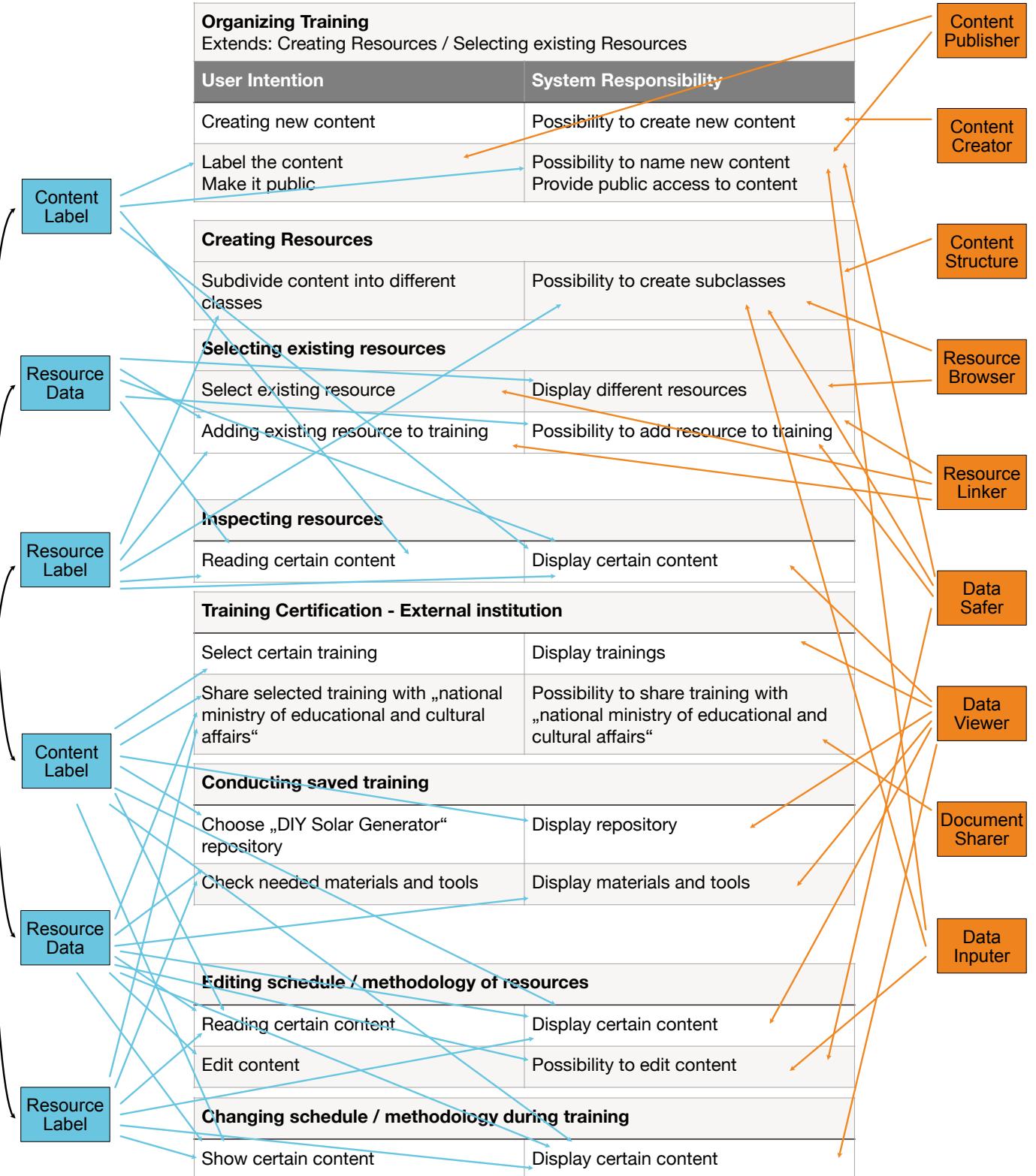


## L. Tools and Materials

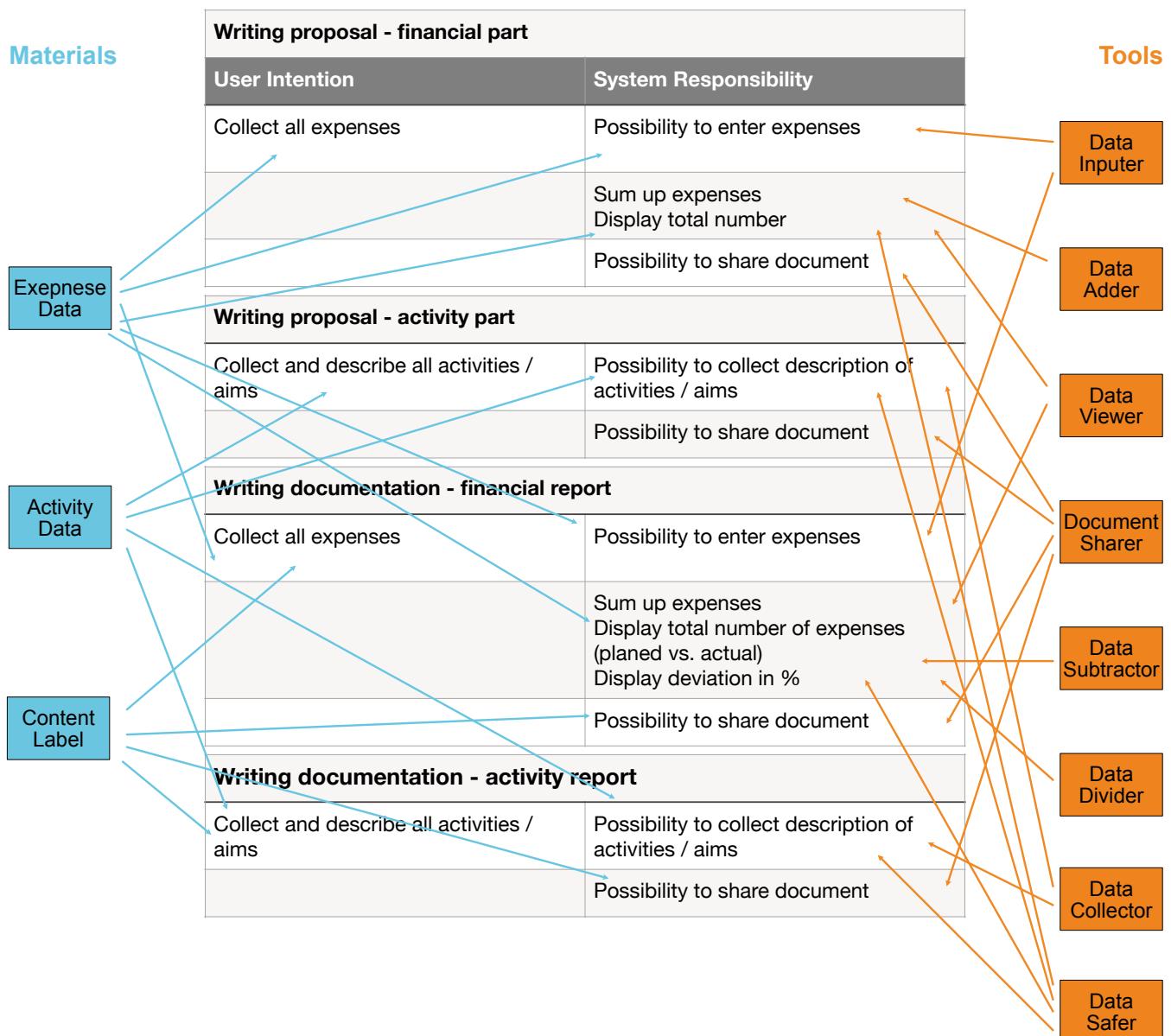
### ORGANIZING TRAININGS

#### Materials

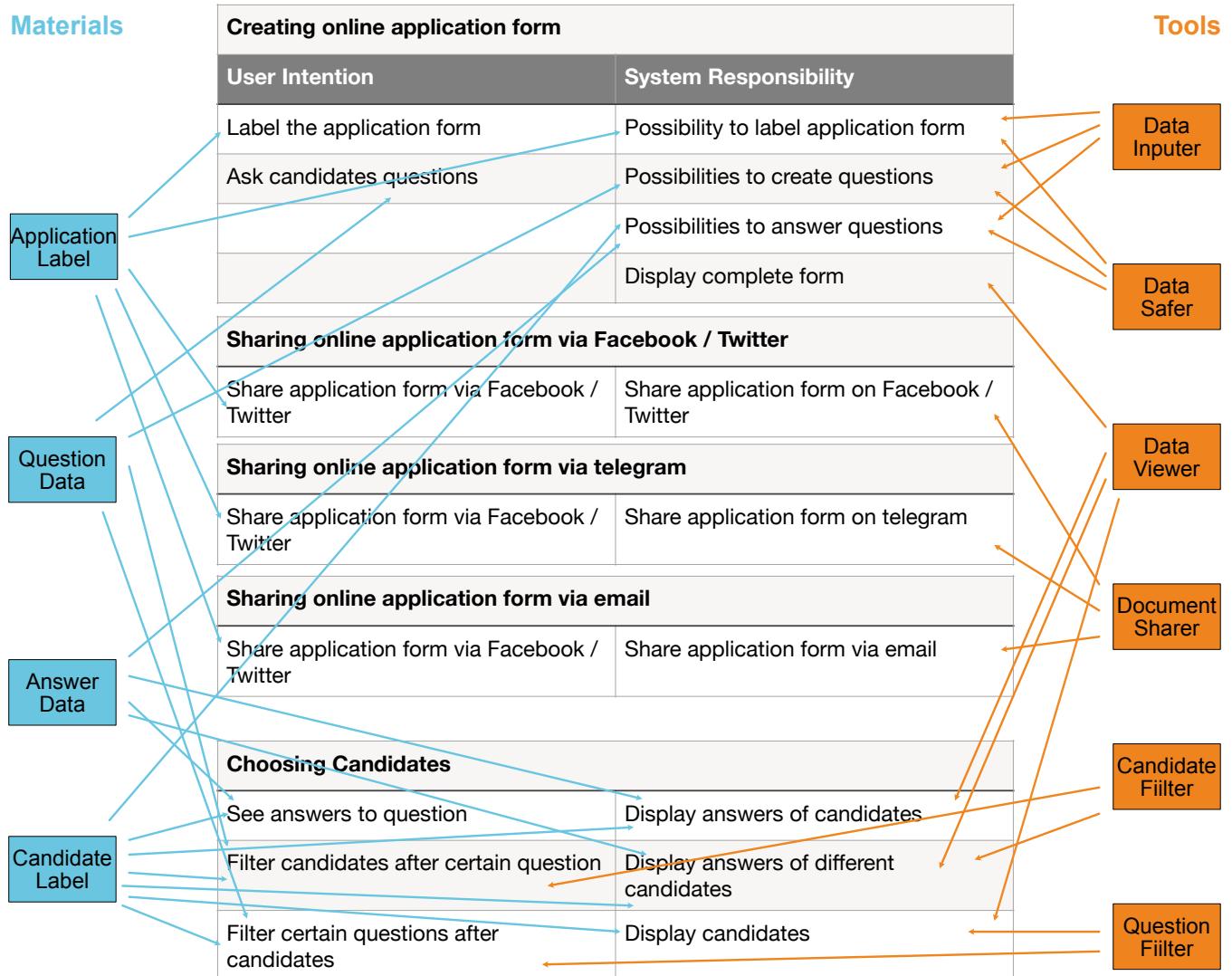
#### Tools



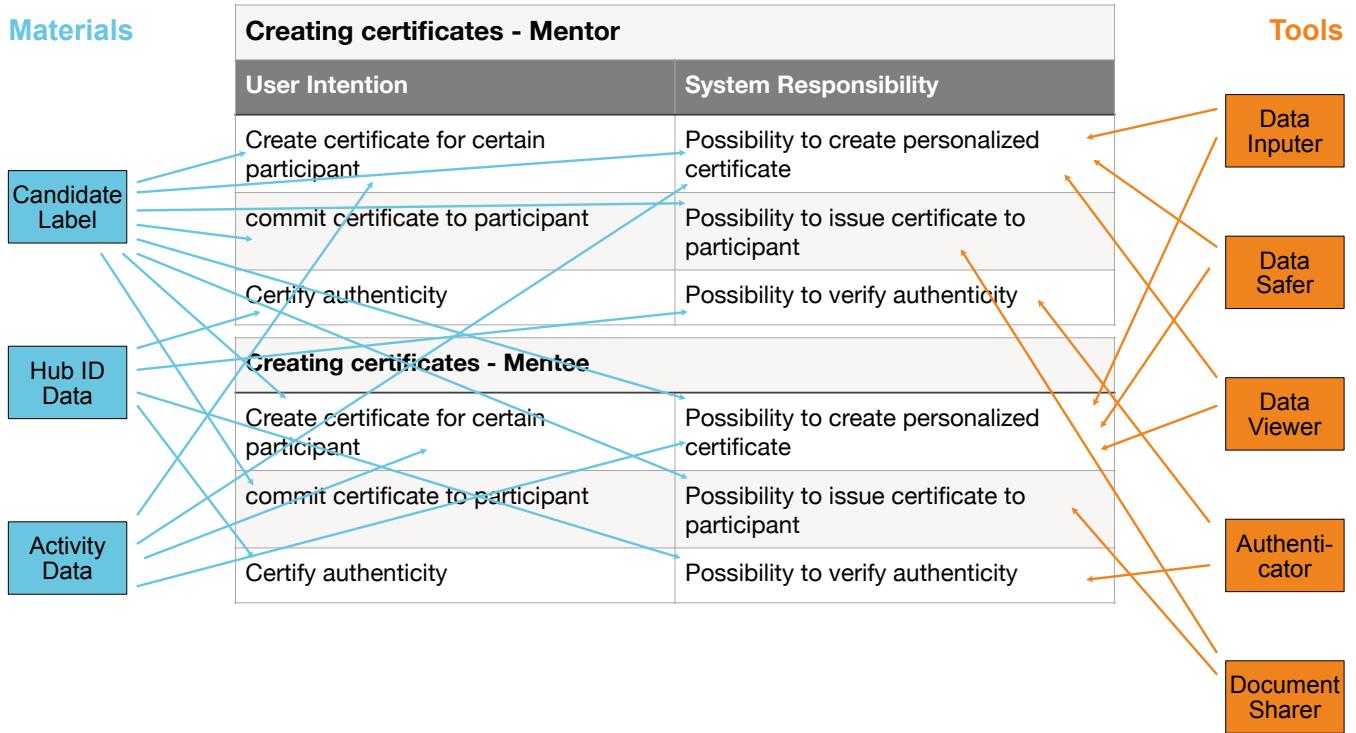
## GENERATING DOCUMENTS



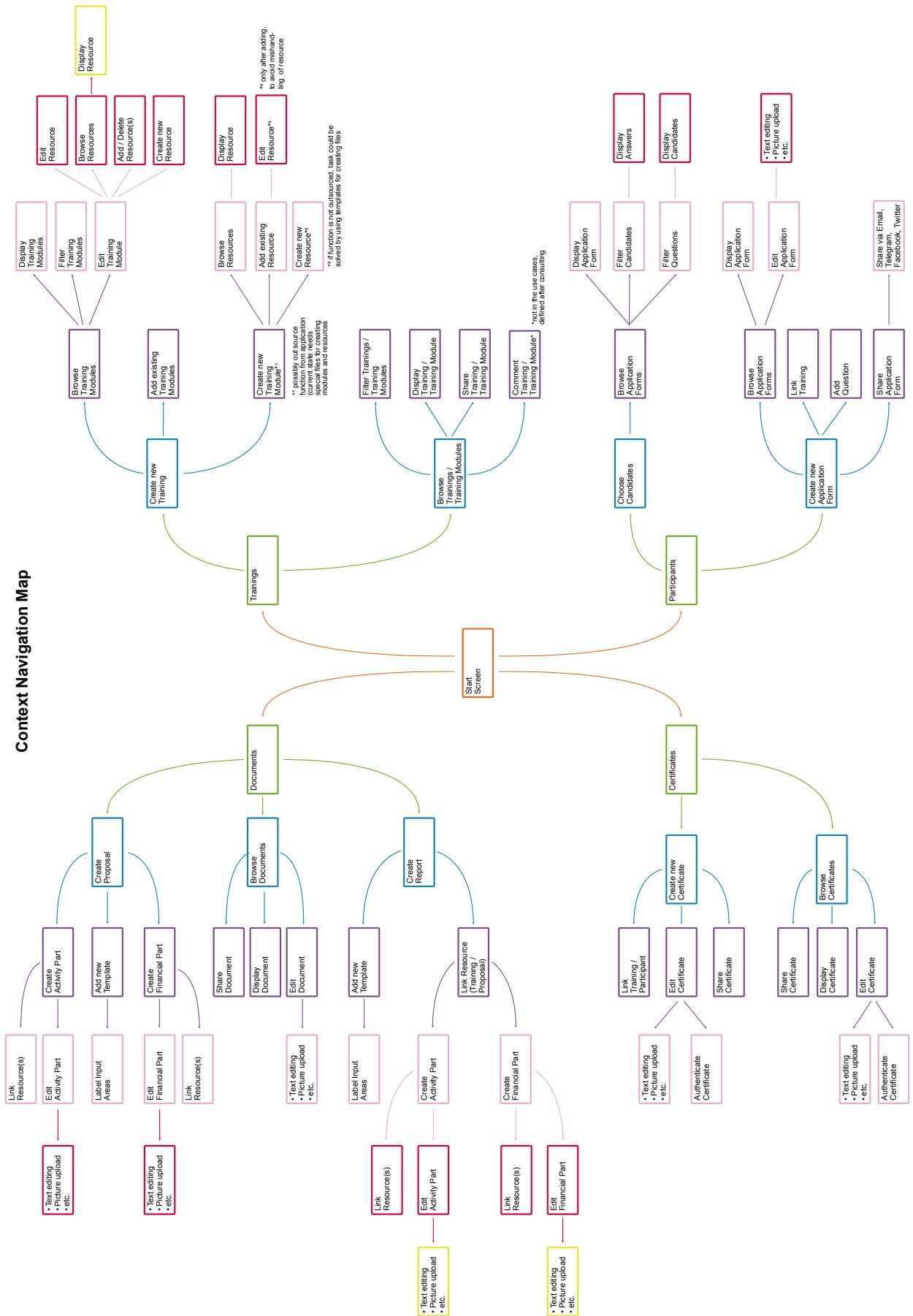
## FINDING PARTICIPANTS



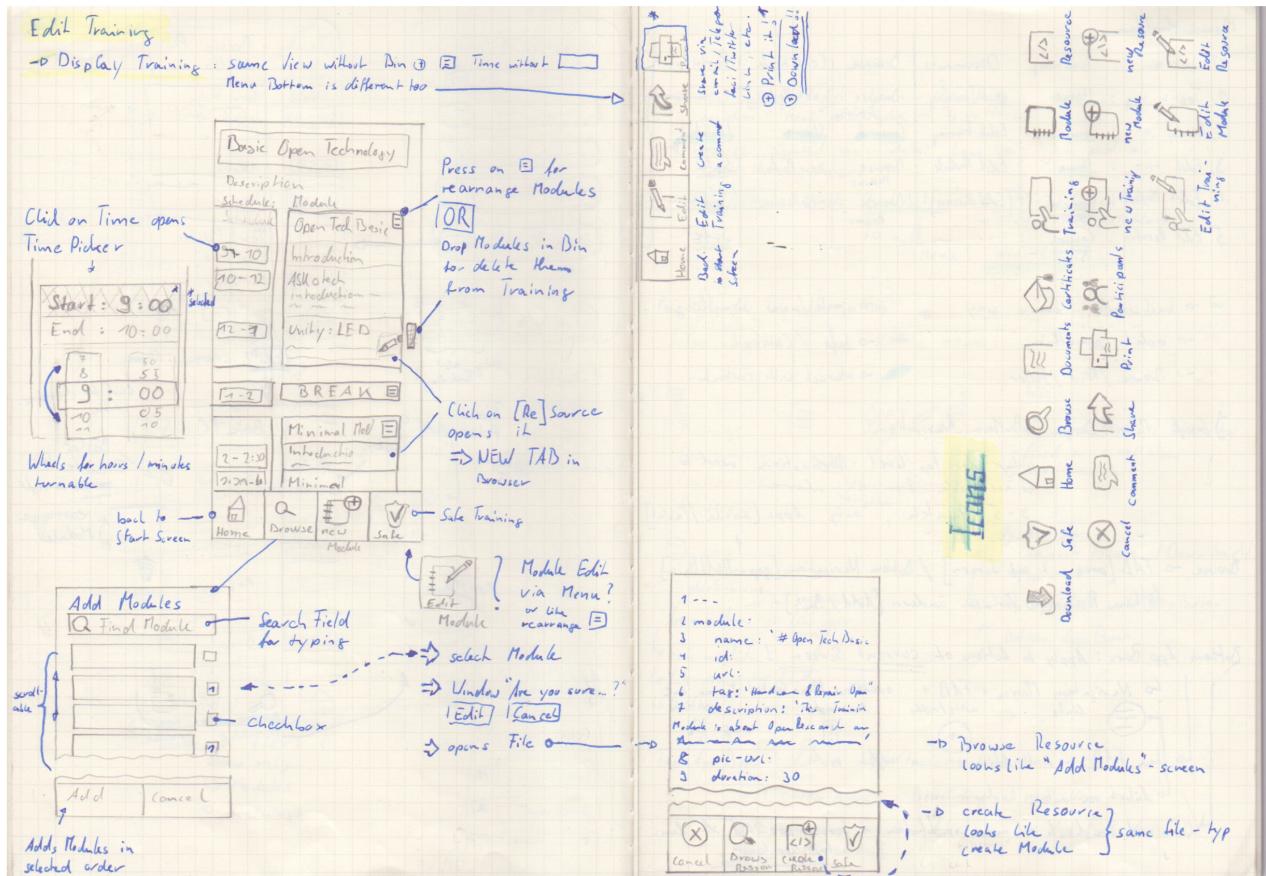
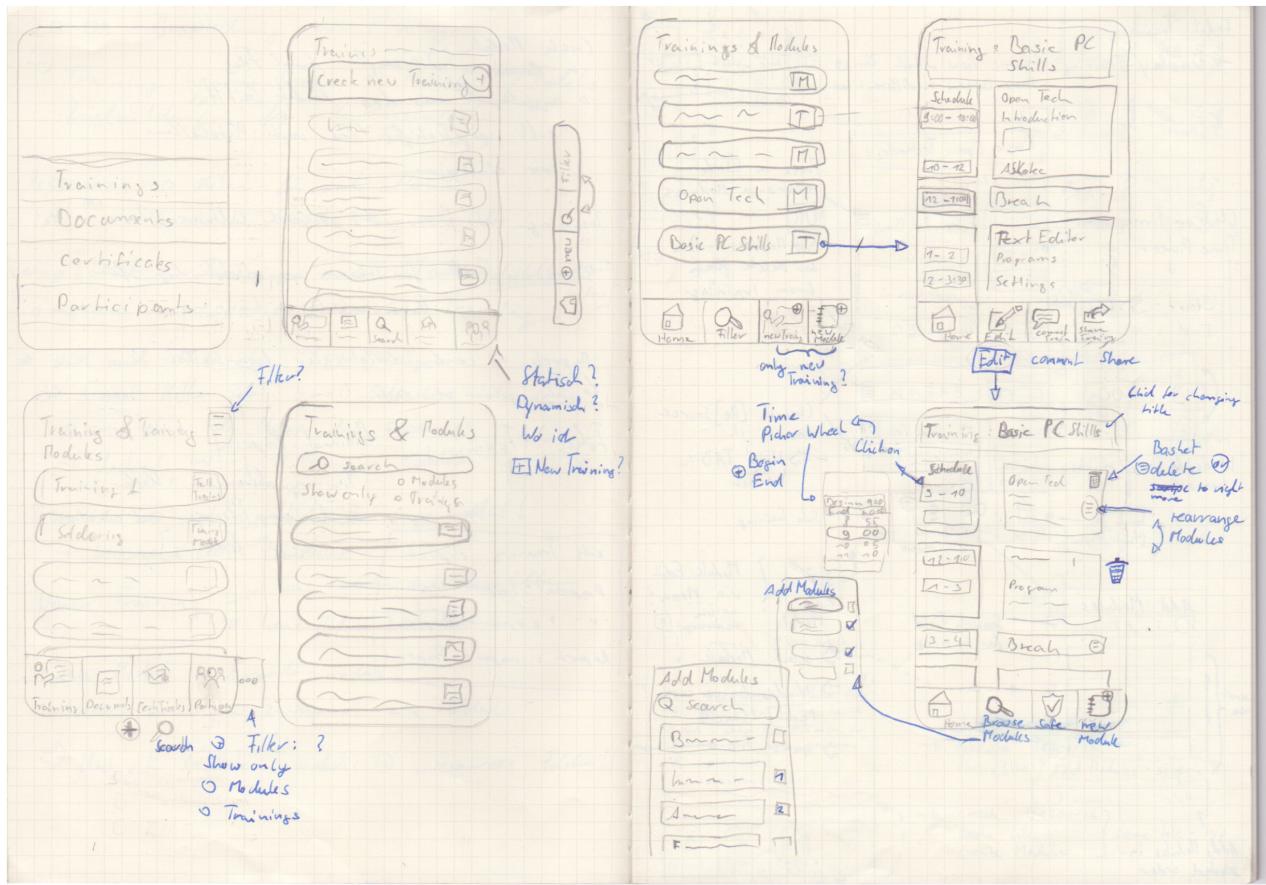
## GENERATING CERTIFICATES



## M. Context Navigation Map



## N. Sketches



**Menu Structure:**

1. Screen : Training	Documents	Browse	Certificate	Participant
1. Training : Home	new Training	Browse Training [new Module]	Share	[Print]
2. Display ... : Home	Edit Training	Comment	new Label	Sale
3. Edit ... : Home	Edit Module	Browse Modules	new Resource	Sale
4. Edit Module : Cancel	[Edit Resource]	Browse Resource	Sale	Sale
5. Edit Resource : Cancel				

→ backwards in some way  
 → edit something  
 → Browse / Find / Filter

→ create / new something  
 → Sale / Cancel  
 → interact with content

→ new Training / Module kann in Übersicht aus dem "Menü" verschwinden → 3 Buttons

→ Browse eigentlich immer dabei, kann bei Z.D.T. auch als Back Button fungieren

→ Home-Button evtl. als "Back Button" mit ⌘ "last Screen title"  
 → "Back - Combi - Mausleiste"  
 → nicht im Menü! oben links!

**Possibility for Tab-Navigation**

Training	Trainings Modules Resources
≡	≡
Trainings	≡
Documents	≡
Certificates	≡
Participants	≡

**Tabs:**

- all same level of hierarchy
- fixed or scrollable
- icons possible

→ Use for Comment / Share / Download / Print  
 in Top App Bar with ⌘ - Button  
 or Bottom App Bar

**Bottom App Bars: Apply to Actions of current Screen**

↳ Navigation Menu + FAB + overflow Menu Control + max. one action  
 ↳ max. 4 Actions on right side  
 ↳ Lade von unten hoch  
 ↳ kann und handhabt Elemente enthalten → Screen spezifisch dann in top app bar

**Top App Bar: Actions related to current screen**

- + screen titles + Branding + navigation
- kann zur contextual Action Bar werden [z.B. beschreib von Elementen]

**Display Training**

**Edit Training**

**Edit Module**

**Display Module**

**Navigation Menu:**

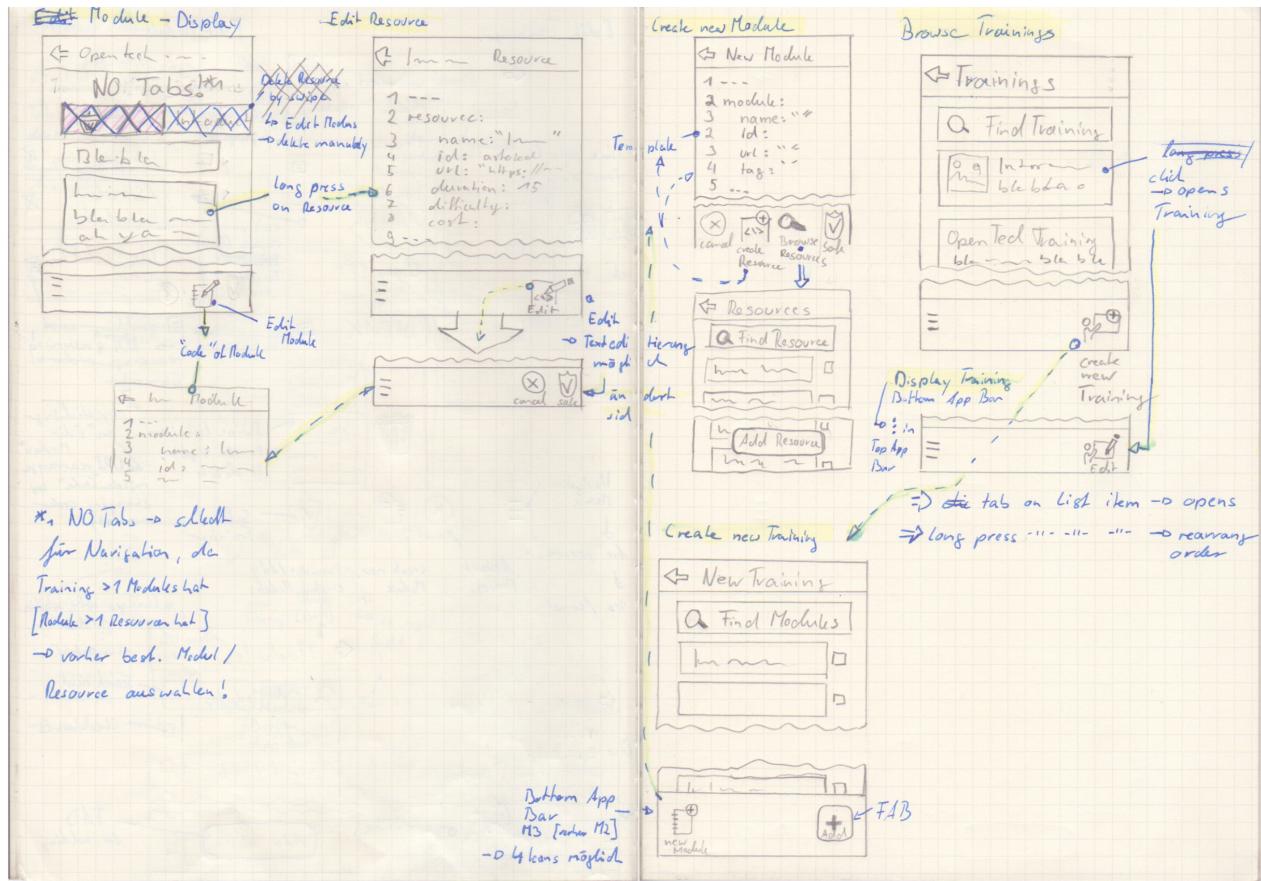
- Trainings
- Documents
- Certificates
- Participants
- Height > Content

**Bottom App Bar:**

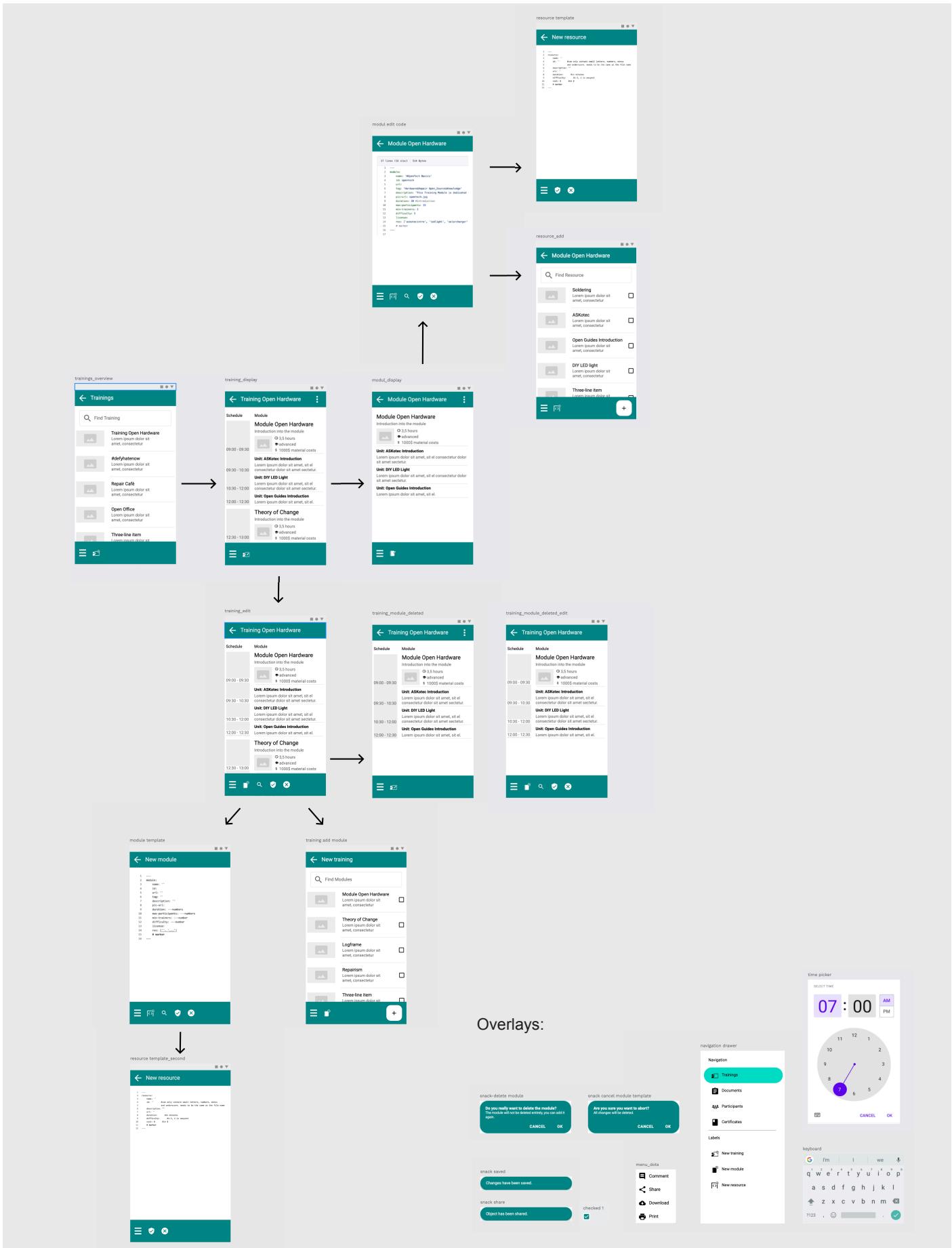
- full width
- overlaps content

**Changes after selection:**

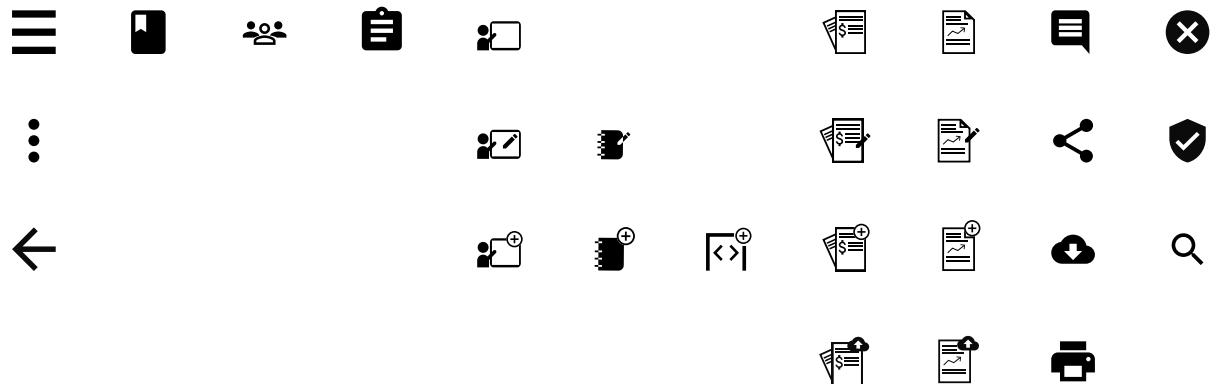
- 1 Module: 4 Modules
- Search field
- Checkboxes
- FAB for adding



# O. Interaktiver Prototyp







## P. Usability Test - Vorbereitung

### Preparation for the test:

#### Scope:

- Principle of navigation, understanding of navigation elements (search box, hamburger menu, etc)
- adding module to training (resource to module) / creating new modules (resources) with (yaml file) templates
- icons for training / module / resource and proposal / report
- Structure of training -> module -> resource
- Principle behind documents part

#### Purpose:

- Main point is the understanding of the structure: training -> module -> resource, because this structure is related to the first ASKtraining prototyp. If it isn't understood, the back end would need a revision
- The principle behind the document section is quite difficult, but the prototype doesn't feature the hard parts yet
- Principle of navigation

#### Schedule & Location:

- Maximum of three tests per day
- Planing to get as many participants as possible in the settlements, without disturbing their work (one test per day at the settlement seems doable)
- Remaining participants will be found at the ASKnet conference
- Scheduled are 7 to 8 tests

#### Sessions:

- Each test is scheduled for approximately one hour
- If there should be more than one test per day, there has to be a break between of min. one hour

#### Equipment:

- Test will be done on my laptop (MacBook Pro, 13 inch display)

- Audio and screen recording will be provided (QuickTimePlayer)

**Participants:**

- test will be executed with seven to eight participants to gather valid data
- At the settlements and during the conference with members of ASKnet

**Scenarios:**

- Approximately 8 to 10 tasks, with possibilities to test some small things on the side (e.g. is an icon understood, etc.)  
—> tasks starting page 3

**Metrics:**

- Likes, Dislikes and Recommendations: Participants provide what they liked most, what they liked least, and recommendations for improving
- think aloud method, a procedure for describing what is being seen, thought and processed during the test

**Quantitative metrics:**

- successful task completion: note if participant could solve the task (was it easy, was it hard?)
- Note of Critical Errors

**Roles:**

- I will be the facilitator (guiding through the test)
- I will do handwritten comments on the side

**Tasks:**

- Take a look at the 'Training Open Hardware' and describe what you see.  
—> feeling / understanding how to handle prototype
- Share only the module 'Module Open Hardware'  
—> understanding / learning the subdivision of training / module  
—> little menu right upper corner is recognized

- Create a new training with following modules: ,Module Open Hardware‘, ,Theory of Change‘
  - > understanding / learning about the icons for training
  - > understanding process of adding modules to a training via checkbox (FAB button)
- Edit the schedule (time) of the different units and save it.
  - > understanding / learning about the icons for editing and how to edit
  - > principle of editing and the time picker (and how to open it)
  - > save button, seen, icon understood
- create a new module for the ,Training Open Hardware‘ (called ,test‘)
  - > finds the template, understands it
  - > difference between existing modules and creating new ones
- add the already existing resource ,ASKotec‘ and ,DIY LED light‘ to the module
  - > magnifying glass icon understood, sector found
  - > checking out the subdivision of module / resource
- [Create a new resource]
  - > would be the same process like create new module, but on a deeper layer

### **Changing the prototype from ,Trainings‘ to ,Documents‘**

- Share the ,Repair Café Report‘, and describe what you see
  - > little menu right upper corner is recognized again
  - > feeling / introduction of the second section of the prototype
  - > division of financial part / activity part
- Edit the financial part of ,Repair Café Report‘, and save it
  - > edit icon understood in other context
  - > process of editing (use of keyboard)
- Write a report for the ,#defyhatenow‘ training, use the ,ASKnet Report Template‘ for it
  - > using a template, linking a training to a related report
  - > is the methodology of linking a training to a report understood
  - > icons proposal vs. report

## **Q. Usability Test - Aufgaben**

### **Introduction:**

„Hello.. ASKnet prototyp, a tool for organizing and planing trainings.

Most important thing: you can't do anything wrong, I test the software **NOT** you!

I will ask questions like ‚what do you think‘, to encourage you to share your thoughts, feelings and impressions with me.

I will make some notes on the side, the screen and the audio will be recorded and used for the evaluation of the test .. “

### **Personal Data**

Name; Age; Profession; Smartphone; Using a desktop Computer; Technical skills form 1 to 5 (1 = Poor, 2 = Fair, 3 = Good, 4 = Very Good, 5 = Excellent)

### **Tasks:**

You are a trainer of ASKnet, and you will conduct a training next week. This time you do your training by using the ASKtraining tool. The training you will do is called ‚#defyhatenow‘.

- Please **search** for it and describe what you see.

You want to share the graining online with your college. How would you do it?

- Share **only** the module ‚Module Open Hardware‘

This time you want to **create a new training**. It's about ‚Open Hardware‘ and ‚Theory of Change‘.

- Check if you could use existing elements for your newly created training
- **Edit** the schedule (time) of the different units and save it.

You were checking out the training called ‚Training Open Hardware‘ and came up with a great idea: An **additional** module to introduce the ‚ASKotec‘ and build a ‚Soldering‘ would be perfect.

- Please **expand** the training with your idea

**Changing the prototype from ‚Trainings‘ to ‚Documents‘**

The second part of the test handle the documents sections. This section takes care of the preparation and the past processing of the trainings.

- Please **share** the ,Repair Café Report‘, and describe what you see

You found some mistakes at the financial part of ,Repair Café Report‘ and would like to correct them

- **Correct** the financial part of ,Repair Café Report‘, and **save** it

You and your colleges finished the training ,#defyhatenow‘, now it’s time to **write** a project report.

- Please **write** a report for the ,#defyhatenow‘ training, you can use the ASKnet template

### **Questions after the test:**

- What was your impression of the prototype?
- What could be different / what should be changed?
- What do you think of the training / module / resource structure?
- What do you think about the documentation process?
- Any recommendations, hints, advices?

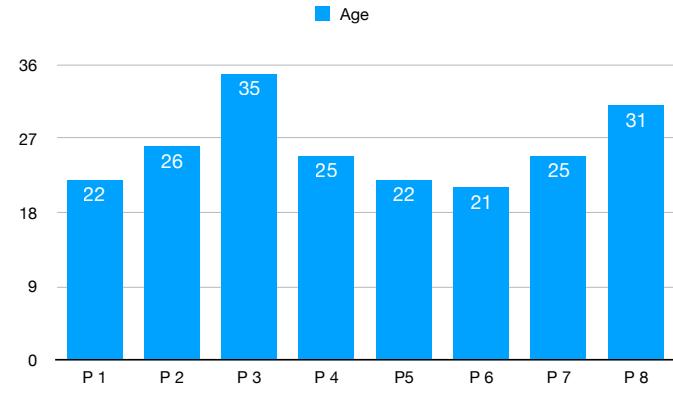
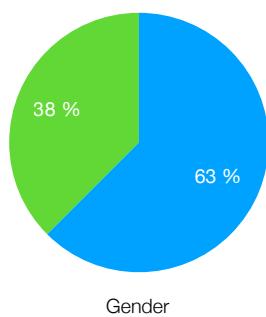
## R. Usability Test - Proband:innen

Participants Data

	P 1	P 2	P 3	P 4	P 5	P 6	P 7	P 8
Age	22	26	35	25	22	21	25	31
Gender	Male	Male	Male	Male	Female	Male	Female	Female
Smartphone	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Desktop Computer	Yes	Yes	Yes	Yes	Yes	No	No	Yes
Technical Skills (self-assessment)	4	4	5	4	4	4	3	5
Profession	Software Engineer / programmer (self taught, since one year scholarship student)	Software engineer (Bachelors degree)	Hardware repair technician	Software engineer (studied, no degree)	Social scientist (almost graduated / senior year)	secondary level education, self taught computer skills like MS office	Admin, financial management	Social worker, with IT background (studied)

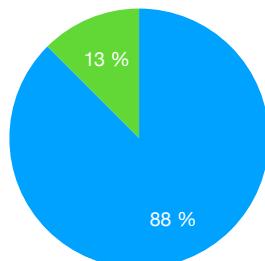
● Male ● Female

Gender	
Male	5
Female	3

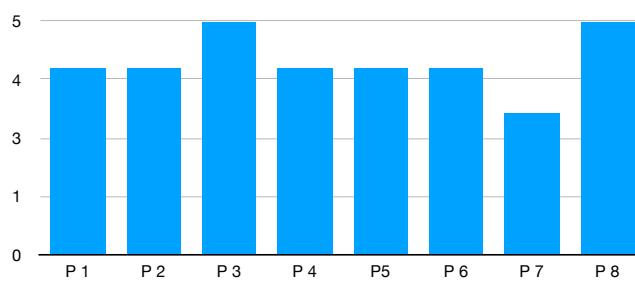


● Yes ● No

Smartphone	
Yes	7
No	1

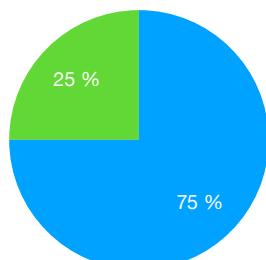


■ Technical Skills (self-assessment)



● Yes ● No

Desktop	
Yes	6
No	2



## S. Usability Test - Evaluation: Tabelle

Tabelle 1



## T. Usability Test - Evaluation: Report

### Evaluation Usability Test

The table in the document "evaluation test - sheet 2" serves as the basis for the evaluation in this document.

In this table, the videos for the tests are evaluated according to test participant. It describes how elements and principles are perceived and felt. In addition, the individual cells of the table are marked in color, based on a traffic light, depending on whether a certain point is passed / understood. Red is equivalent to a failure, whereas orange symbolizes a partial and green a complete pass / understand.

This document describes the findings of the test and is structured according to interaction elements, such as buttons, icons, or menus, functional principles, and debriefing. The elements examined are first briefly described, followed by the questions that arose in the course of the test regarding the elements, and concludes with an assessment of how the element described performed in the test. In addition, each finding is divided into the following categories:

**Critical:** If we do not fix this, users will not be able to complete the scenario.

**Serious:** Many users will be frustrated if we do not fix this; they may give up.

**Minor:** Users are annoyed, but this does not keep them from completing the scenario.

This should be revisited later. <sup>1</sup>

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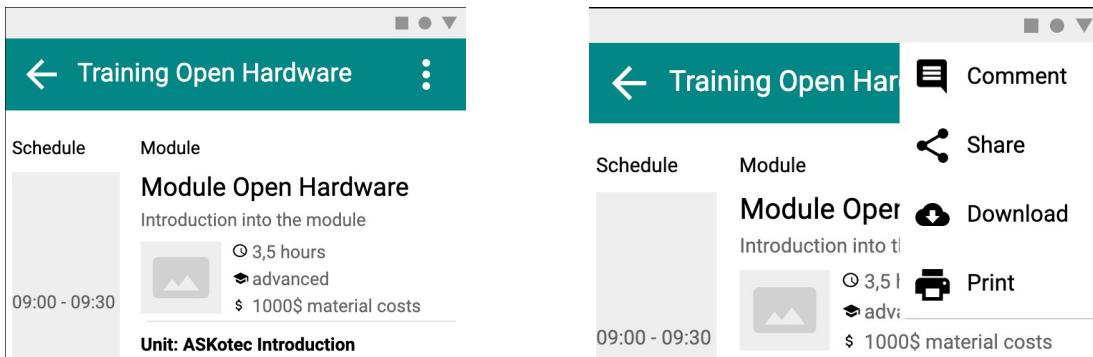
<sup>1</sup> Assistant Secretary for Public Affairs. (2013). *Reporting Usability Test Results*, from <https://www.usability.gov/how-to-and-tools/methods/reporting-usability-test-results.html>  
Accessed: 03.01.2023

## A. INTERACTION ELEMENTS

1. **Three Dot Menu:** Menu in the upper right of the screen for sharing, printing, downloading, and commenting on content.

Has it been found?

Was content sharing suspected here?



The menu for sharing is found quickly and easily in most cases. Participants who have difficulties with sharing have the impression that they are very hesitant to interact with the prototype at the beginning of the test. This task is asked again later in the test, and all participants show a high ability to learn and perform the task correctly the second time.

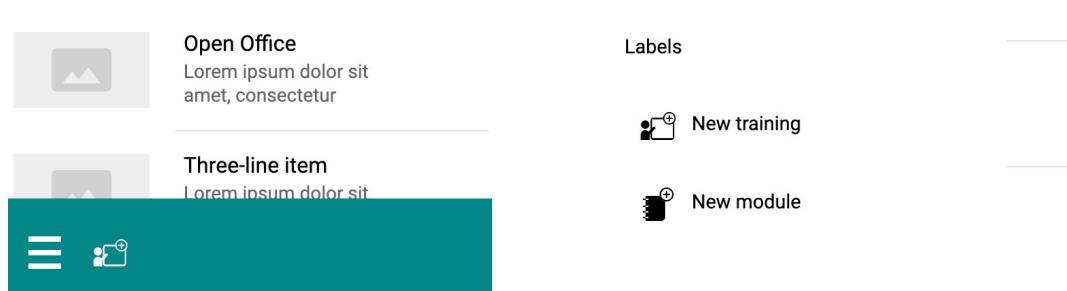
The menu itself is perceived by almost all participants, the icon consisting of three dots is understood.

**Finding:** minor

2. **Creating New Training:** button for creating a new training in the hamburger menu and in the bottom navigation bar in some places in the system

Which variant is used?

Is it used / found for the task "create new course"?

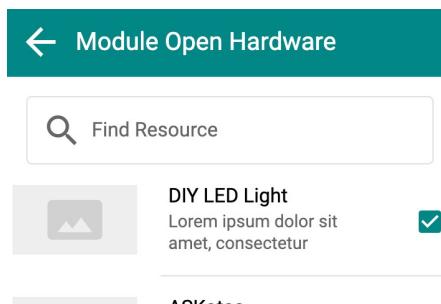


Half of the test persons choose the way via the Hamburg menu to create a new training. This could possibly be due to the fact that the icon is additionally described in text form at this point. None of the test persons has problems creating a new training.

**Finding:** none

3. **Checkboxes:** To select modules and resources Are they noticed?

Is the principle understood?



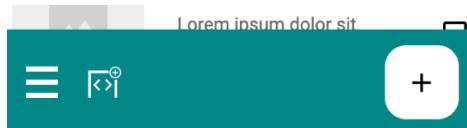
Almost all respondents use the checkboxes to select the modules to be added.

**Finding:** minor

4. **FAB:** button for adding modules and resources in the bottom navigation bar

Is this perceived?

Is it perceived as an instrument of addition?



All subjects use the FAB to add elements. Few subjects hesitate to use it, probably because the elements in the bottom navigation bar are opposite each other and look very similar (both buttons have a + sign). Wording within the FAB ("Add") could help.

**Finding:** minor

5. **Safe Button:** Button for saving changes in the editing area in the Bottom Navigation Bar (icon with ✓ symbol).

Is this perceived?



Found and understood by almost all respondents. One respondent criticized the shape of the checkmark: "It looks more like a security icon. A change of the icon, away from the "security" look is quite conceivable."

**Finding:** minor

6. **Edit Button:** Button for editing trainings (modules / resources) in some areas in the bottom navigation bar, buttons are always marked with a pencil icon (for the respective different areas)

Is this perceived?

Is the principle / icon understood / read correctly?



Is perceived and understood by most subjects. The pencil symbol often indicates this. However, this button could be superfluous in the case of a touchscreen, since an edit could also be triggered by a double tap on a specific document.

**Finding:** minor

7. **Add Module Button:** Button to add more modules to a course Is this perceived in the bottom navigation bar (or in the hamburger menu)?

Is the principle / icon understood / read correctly?



Half of the test persons use the Add Module button in the Hamburg menu. This raises the question of whether the button in the hamburger menu generally only creates a new module, or whether it can also be used while editing a training in the same place as the button in the bottom navigation bar, i.e. adding the module to precisely this training.

**Finding:** minor

8. **Tab Navigation:** Tabs for switching between Activity Part and Financial Part in the upper part of the document view
- Is the element perceived?



Three participants stated that they had seen the tabs but did not perceive them as navigation elements. Two of these participants nevertheless emphatically perceive the navigation by means of the tabs as good. Recommendation: A small hint, as for example in **B 8 Linking training to report** (left figure), which indicates that the second part of the report is located at this point.

**Finding:** minor - serious (serious because not finding the financial part can be problematic, minor because subjects who do not find the navigation elements still find them positive).

9. **Create New Report:** button for creating a new report in the bottom navigation bar and in the hamburger menu
- Is the button used in the hamburger menu or in the bottom navigation bar?



Half of the subjects use the button in the bottom navigation bar, one of them uses the button for Create New Proposal (wrong button). One respondent is

unsure and uses the button in the hamburger menu instead of the buttons in the bottom navigation bar, probably to be sure to select the right one.

**Finding:** minor

- 10. Icons Report vs. Proposal:** Different, but still similar icons in the bottom navigation bar and in the hamburger menu (see screenshots: [A 9. Create New Report](#)).
- Are the icons read correctly?

This point cannot be understood by all test persons, since it is not always discussed. However, the videos show that test persons see and recognize the differences in both icons, so it is assumed that after incorrect operation, users learn which icon belongs to which area. Explanations about the design of the icons are understood by the participants and perceived as logical.

**Finding:** minor

## B. OPERATING PRINCIPLES

- 1. Find training:** Entry task, search for a specific training Is the training found?

Do the test persons understand what is depicted?

Schedule	Module
09:00 - 09:30	<b>Welcome</b> Introduction into the module  3,5 hours advanced \$ 1000\$ material costs
09:30 - 10:30	<b>Unit: Welcome</b> Lorem ipsum dolor sit amet, sit el consectetur dolor sit amet sectetur.
10:30 - 12:00	<b>Unit: Social Plattforms</b> Lorem ipsum dolor sit amet, sit el consectetur dolor sit amet sectetur.
12:00 - 12:30	<b>Unit: Waht is hate</b> Elorem ipsum dolor sit amet, sit el

The first task is solved by all participants without any problems, the required training is found, the overview is described correctly. Also the search bar in the

first overview is used / recognized by test persons. Some test persons want to have a closer look at the units / resources, which the prototype does not allow at the time of the test. Units / resources are currently planned as further links.

## Finding: minor

- 2. Editing the schedule:** Editing of trainings, click on the timings on the left side (white box in the gray box).

Is the principle of editing understood in principle (editing mode)?

Is it understood how to change the times of the different modules?

Schedule	Module
09:00 - 09:30	<b>Welcome</b> Introduction into the module  3,5 hours advanced \$ 1000\$ material costs
09:30 - 10:30	<b>Unit: Welcome</b> Lorem ipsum dolor sit amet, sit el consectetur dolor sit amet sectetur. <hr/> <b>Unit: Social Platfroms</b>
09:30 - 10:30	<b>Welcome</b> Introduction into the module  3,5 hours advanced \$ 1000\$ material costs

The principle of changing is understood by the majority of the test persons, occasionally they try to change the times in the "new module" area.

This task at this point of the test is not so easy, since subjects go directly from adding modules to editing mode and thus the rather small visual difference to non-editing mode (see right figure) can only be perceived with difficulty. Nevertheless, the procedure of going directly from adding modules to editing mode is not necessarily wrong, but may be problematic for a test situation.

**Finding:** minor

3. **Creating new module:** Adding a new module Is the template understood?

### New module

```
1  ---
2  module:
3    name: ''
4    id:
5    url: ''
6    tag: ''
7    description: ''
8    pic-url:
9    duration: ---numbers
10   max-participants: ---numbers
11   min-trainers: ---number
12   difficulty: ---number
13   license:
14   res: ['', '...']
15   # marker
16   ---
```

Most of the test persons understand the process of adding, only a few of those who understand the process have problems with the perhaps somewhat cryptic representation of the template. It is recommended to adapt the representation of the template graphically to the application and to move away from the pure code form. This could possibly be done in the form of dropdowns, which have the same names as the labels in the template. When the dropdown is activated, a text field is released in which users can enter content.

**Finding:** serious

4. **Add existing resources:** Add existing resources to a module.

Will the area in which this is possible be found?

Is the principle of adding existing elements understood?

 Module Open Hardware

 Find Resource

	Soldering Lorem ipsum dolor sit amet, consectetur	<input type="checkbox"/>
	ASKotec Lorem ipsum dolor sit amet, consectetur	<input type="checkbox"/>



Only one subject will find the area where adding new resources is possible. This area is accessible via the button with the magnifying glass icon. It is quite likely that the icon is misleading for a large part of the participants.

Several subjects want to enter the resources in the template of the new module, which is not wrong at this point, but does not offer a choice of existing modules. When revising the "New Module" template, the selection of existing resources must also be considered.

**Finding:** critical

5. **Subdivision of module / resource:** Subdivision of a course into modules and resources.

Is the principle understood?

This point is only raised by a few subjects (three). Moreover, the test is not designed to address this point, but since some subjects do bring it up, their statements are recorded but not evaluated. The subdivision of a module into resources is modeled on the structure of real trainings and is not incomprehensible to the subjects who bring it up. Thought should be given to the wording "resource". In the prototype, the resources are also described as "units".

6. **Editing financial part:** Editing the previously invisible financial part Is the tab navigation used / recognized?

Is the edit button used / recognized?

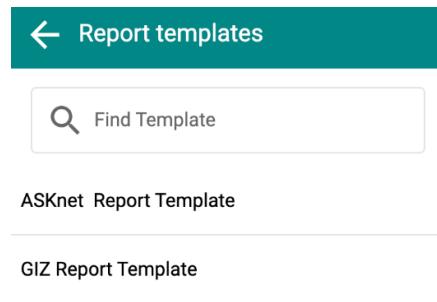
The screenshot shows a digital form titled "Repair Café Report" with a green header bar containing a back arrow and the title. Below the header, there are two tabs: "Activity Part" and "Financial Part", with "Financial Part" being the active tab. The main content area contains two tables: "Income" and "Expenses". The "Income" table has a single row with a total of 110,-. The "Expenses" table has several rows, with a total of 140,-. Below these tables is a section for "Remaining balance" with a value of 10,-. At the bottom of the form, there is a virtual keyboard with a checkmark button on the right.

9

The editing process is fully understood by all respondents. Participant 8 talks about the different hierarchies of the editing levels (22:30 min.) For this point, the evaluation of **A 6 Edit Button** and **A 8 Tab Navigation** is also interesting.

**Finding:** none

7. **Choosing an organization template:** Report template for specific organizations Is the principle that different NGOs use different templates understood?

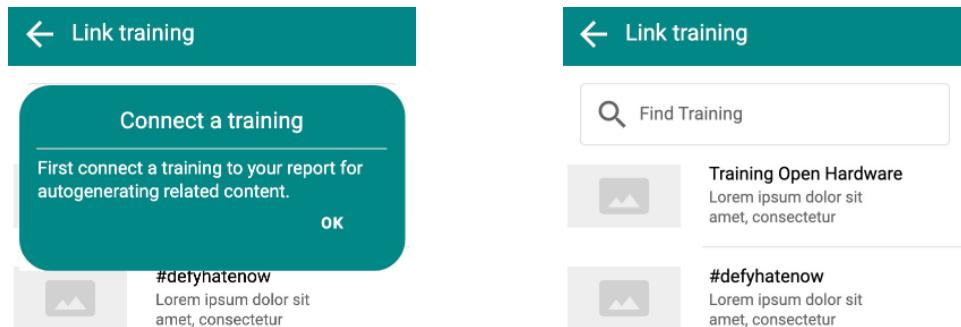


The majority of the test subjects understand the process of selecting a report template for a specific organization. Since the application does not offer the possibility to continue without selecting a specific template and the test situation is not necessarily comparable to a real situation, there is no need for action at this point.

**Finding:** minor

8. **Linking training to report:** Existing trainings are assigned to a new report to generate content.

Is the principle of why allocation is necessary understood?



Most participants understand the process, even if not at first. The impression is that the hint (left figure) is not read carefully by most test candidates. Maybe the wording "autogenerating" is too complicated and too long.

The process of automatic generation may not be clearly represented in the test situation. In a real situation, the generation of a fully completed report, and thus the understanding of the process, is much more obvious and comprehensible. Many test persons find the process very good. It is assumed that users will show a high willingness to learn with regard to this point, due to its considerable importance in relation to the scope of services of the application.

**Finding:** minor

### C. DEBRIEFING

The following points are from the final discussion of the prototype with the participants and are considered important or worthy of discussion.

#### 1. Interaction elements

- Home button in the top navigation bar instead of a back button
- Button "generate project report for this training" in the training area
- Icons should have descriptions (in text form)

- Certificate icon is hard to read, maybe a hat with a bow (US highschool graduates) is easier to read
- The financial part of reports and proposal should be structured differently, maybe like the proposal for **B 3. Creating new module** with dropdowns and text fields

## **2. Operating principles**

- Not every training necessarily has modules, such a structure should be considered
- Each training is unique, the overview of the trainings is more like an overview of the training categories, a further gradation is desired in which trainings are sorted for example by stroke and date
- Reports should only be created by users who have created or participated in trainings (security feature).
- System should provide a version management facility to allow multiple users to work in parallel
- The sharing of documents should be carefully thought through, as it can involve risks of manipulation (security checks, who shares what)
- There should be the possibility to create / edit documents / trainings locally and only publish them with some kind of "Publish" button, or something like that
- Possibly water markers in the proposals and reports to verify authenticity.
- Possibility of changing currencies in the financial part
- Possibility to use the app offline (Progressive Web App)