



# Analyzing UXR Data with MAXQDA: A Remote Moderated Usability Test Example



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# Today's agenda

- A Quick and Dirty Overview of MAXQDA for UX Researchers
- Analyzing Remote Moderated Usability Test Videos
- Code System of UX issues
- Creative Coding to Organize UX issues
- QTT Feature to Generate UXR Deliverables
- A Short Live Demonstration for Practice



# UX Research WITHOUT MAXQDA



# UX Research WITH MAXQDA



# A QaD Overview of MAXQDA for UX Researchers : Affordances and Benefits

## Organize

- Data Flexibility and Variety (transcripts of user and stakeholder interviews and focus groups; images of field visits/contextual inquiries; audios & videos of usability tests)
- UX Research teamwork through Team Cloud (project exchange, collaborative coding and analysis)

## Analyze

- Code, categorize, thematize UXR data
- Summarize & annotate
- Retrieve & filter
- Visualize
- Discover combinations & relationships to identify users' pain points, expectations, experiences etc.

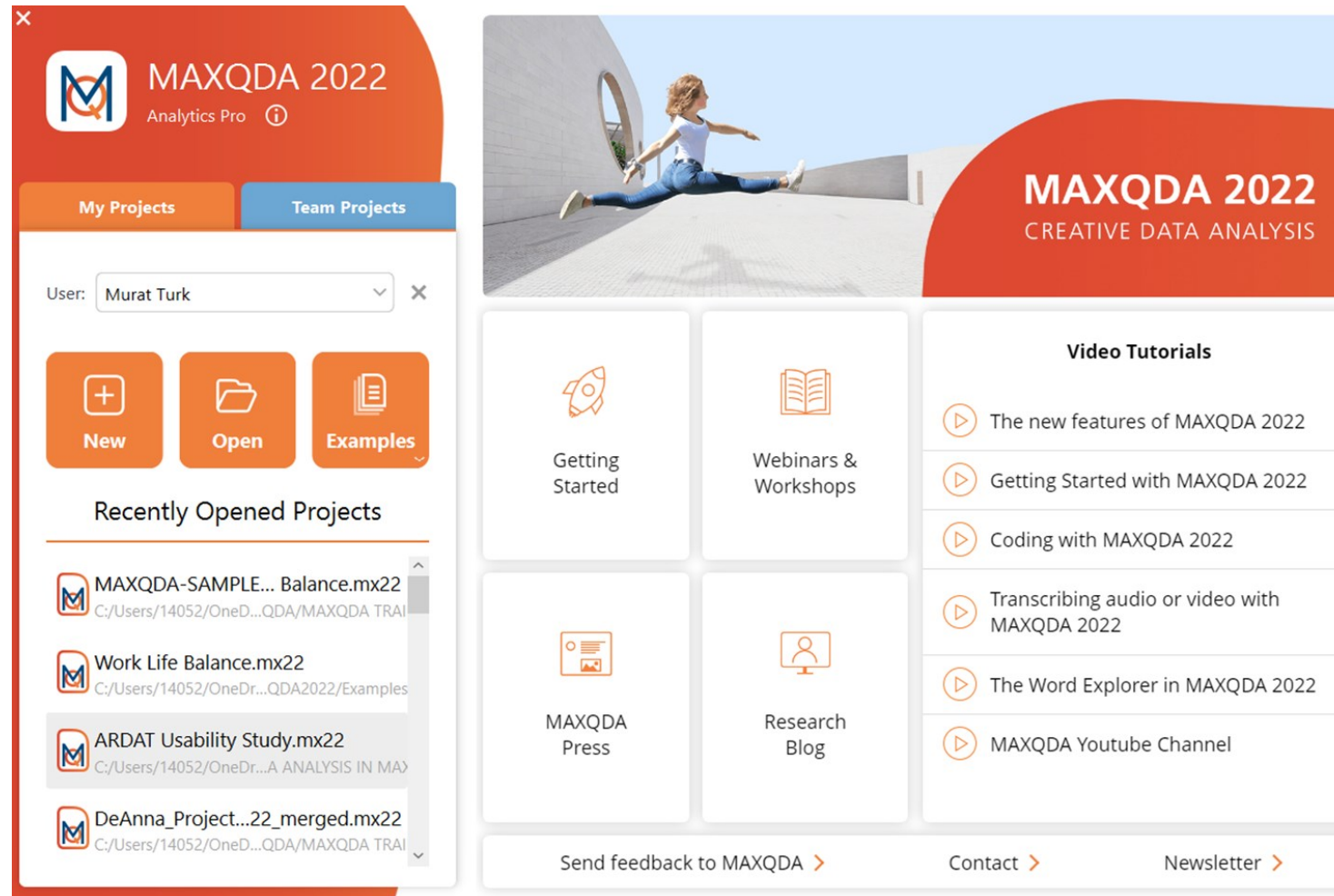
## Present

- Data Visualizations (e.g., Creative Coding)
- UX Deliverables (e.g., QTT Worksheets)
- Transparency of UXR findings and user insights (e.g., Exporting usability video segments to convince your stakeholders)



# A QaD Overview of MAXQDA for UX Researchers :

## MAXQDA 2022 Workspace



# MAXQDA 2022 Workspace: Four Main Windows

The screenshot displays the MAXQDA 2022 Workspace interface, which is divided into four main windows, each with a blue border and a title bar. The windows are arranged in a 2x2 grid.

- Document System (Top Left):** This window shows a hierarchical tree of documents. The 'Documents' folder is expanded, revealing subfolders for 'Jasmine', 'Jessica', and 'Mary'. Each subfolder contains three files: a transcript (e.g., 'jasmine-transcript'), an audio file (e.g., 'jasmine-usabilityaudio'), and a video file (e.g., 'jasmine-usabilityvideo'). The video file 'jasmine-usabilityvideo' is highlighted in red.
- Document Browser (Top Right):** This window displays the content of the selected video file, 'jasmine-usabilityvideo' (135 Paragraphs). It shows a timeline with a play button and a progress bar. The video content is displayed in a large text area, showing a transcript of a user's experience with a website.
- Code System (Bottom Left):** This window shows a list of codes and their frequency. The 'user background' code is highlighted in blue. The list includes codes such as 'need for quick services from academic websites', 'previous bad UX of websites', 'frustration about not finding something easily on a w...', 'perceived importance of user friendliness of websites', 'frequency of Internet use in academic life', 'background of the participant', 'pre-session interview intro for warm up', 'freedom of expression of user', 'no test of participant but product', 'welcome to study and self-intro', and 'user background'.
- Retrieved Segments (Bottom Right):** This window displays the segments of the selected video file that have been coded. It shows a single coded segment (from 1 document, 1 document group) for the 'user background' code. The segment content is displayed in a large text area, showing a transcript of a user's experience with a website.

The bottom status bar shows the number of documents (12), audio files (1), video files (1), and segments (0). It also displays the 'Simple Coding Query (OR combination of codes)' and a search icon.



# Analyzing Remote Moderated Usability Test Videos with MAXQDA

- Overview of Multimedia Browser
- Coding a usability test video with clip selection
- Adding memos to usability test video segments
- Exporting the coded video clips to share with stakeholders



# Usability Test Video Analysis with MAXQDA

- import, play, transcribe, paraphrase, and directly code video footage for UX usability video analysis
- “Multimedia Browser”: playing and coding videos just like coding a text document
- Exporting still images for publications
- Saving still images as image documents in MAXQDA for further analysis
- Exporting short video clips, e.g. for presentations or analysis sessions



# Usability Test Video Analysis with MAXQDA

Supported video formats:

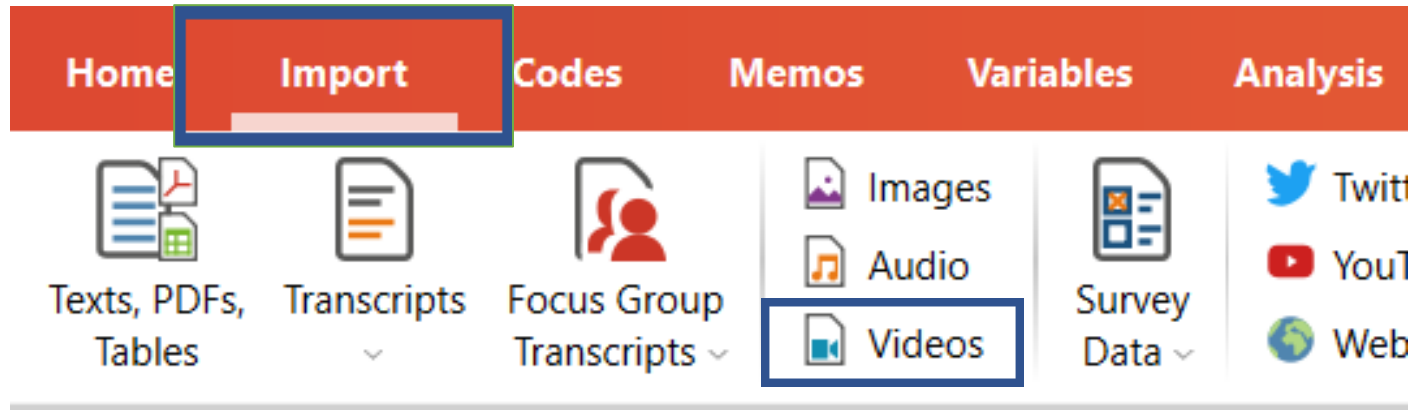
- \*MP4
- MOV
- MPG
- AVI
- M4V
- on Windows: WMV

\*MAXQDA recommends the MP4 format



# Usability Test Video Analysis with MAXQDA

To import a video file to a UXR project in MAXQDA



# Usability Test Video Analysis with MAXQDA

See the imported files in your document system

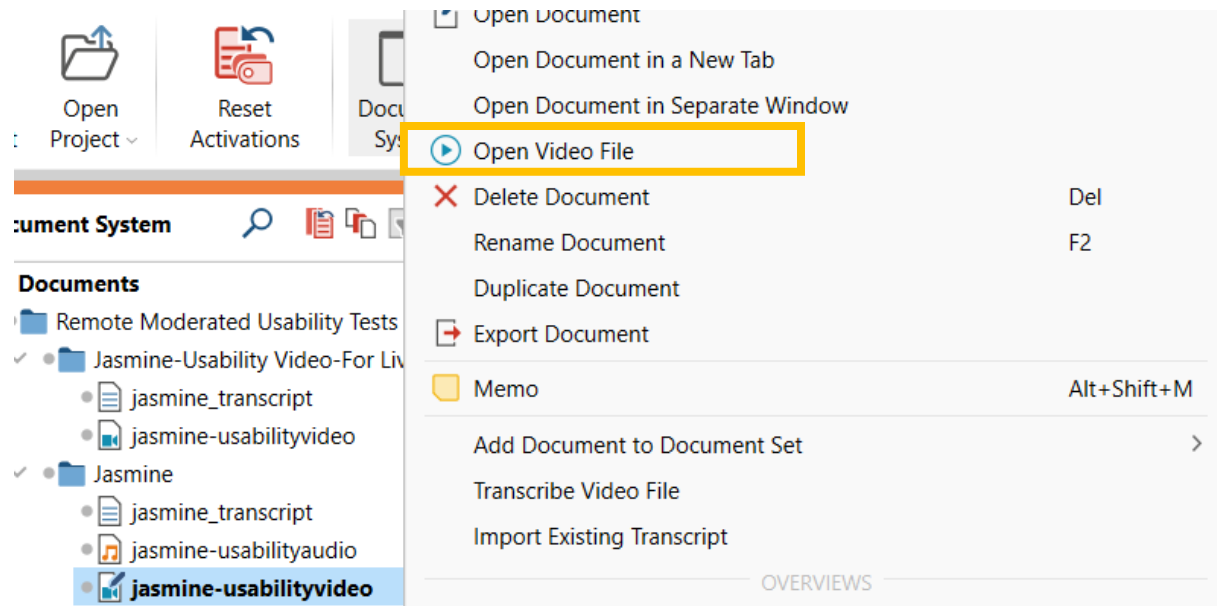
**Document System**

- Documents (284)
  - Remote Moderated Usability Tests (284)
    - Jasmine-Usability Video-For Live Practice (0)
      - jasmine-usabilityvideo (0)
  - Jasmine (85)
    - jasmine\_transcript (0)
    - jasmine-usabilityaudio (0)
    - jasmine-usabilityvideo (85)**

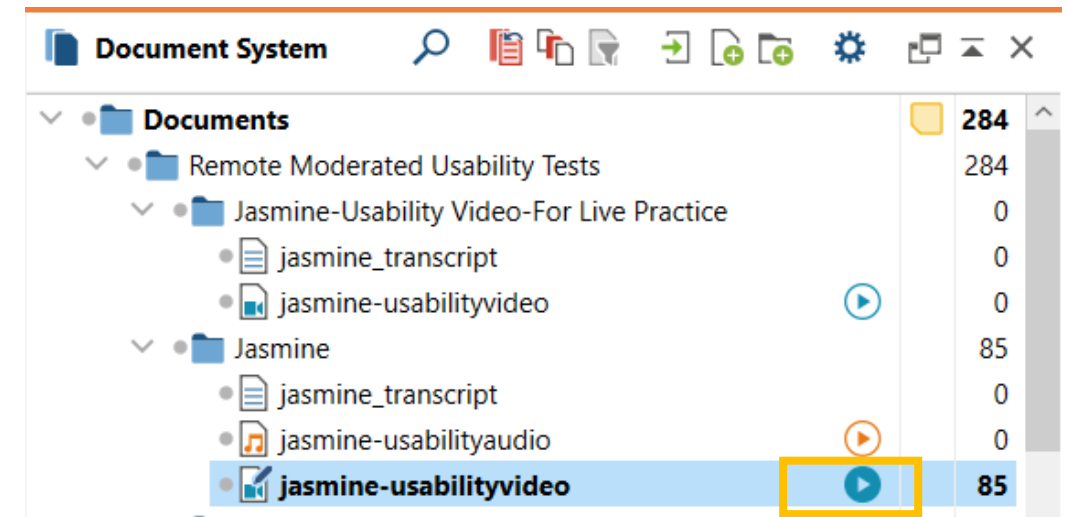


# Usability Test Video Analysis with MAXQDA

The Multimedia Browser: to play a usability test video file



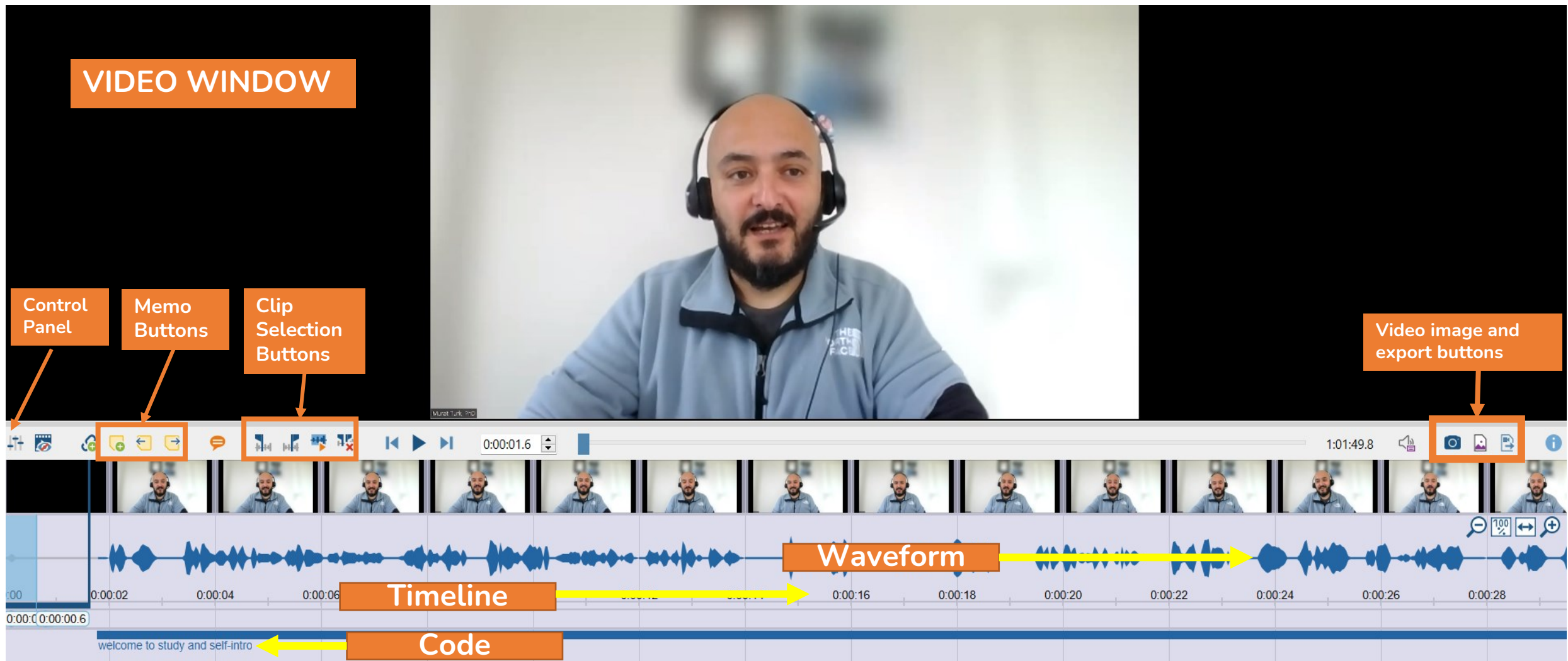
Right-click the document in Document System and select Open Video File



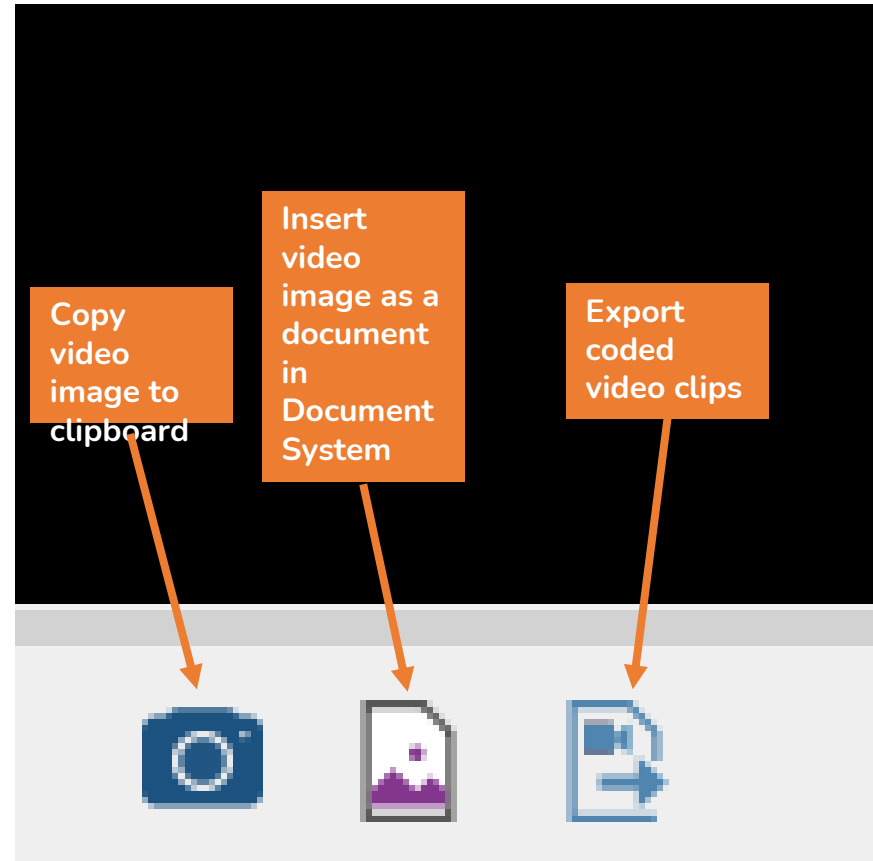
Clicking on the play symbol



# The Multimedia Browser



# The Multimedia Browser: three cool functions for UX researchers



# Coding in the Multimedia Browser

Steps to follow:


- Start by marking a segment in the waveform (a so-called “clip”)
- Set the beginning and end of a segment in a media file precisely
- To roughly mark a segment, keep the left mouse button pressed and select the segment by dragging the cursor over the waveform



# Coding in the Multimedia Browser

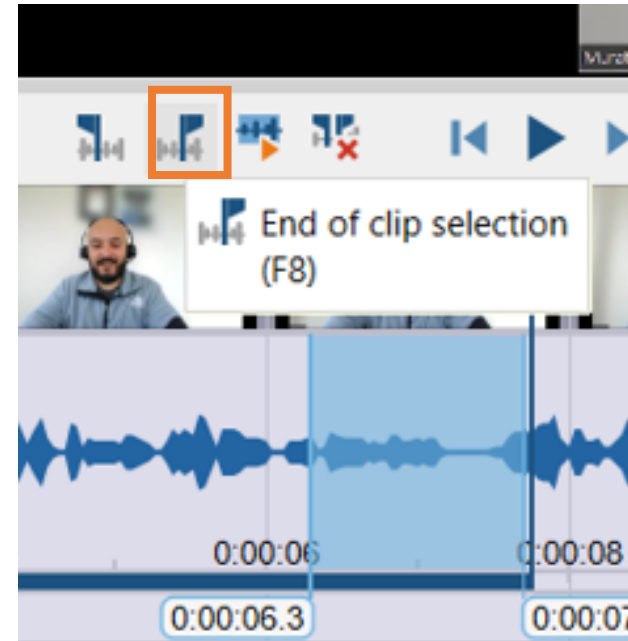
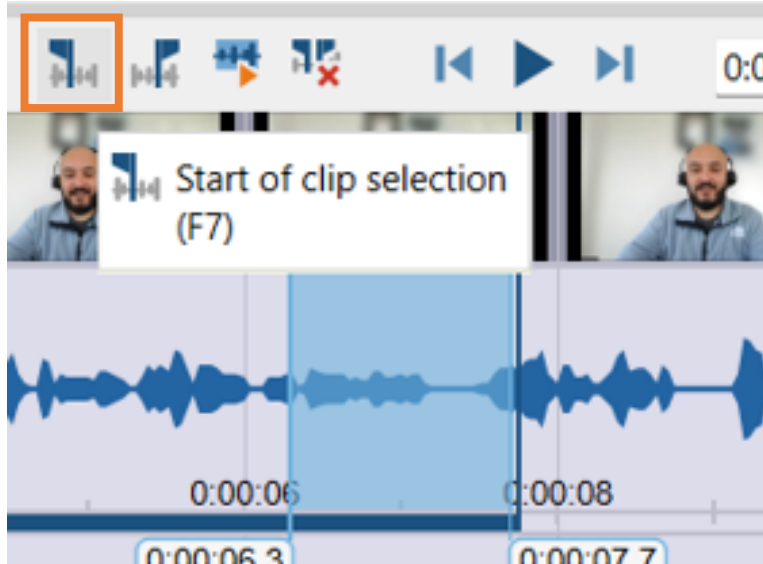
Steps to follow:

To play a media file and then pause exactly at a position where you want to set a new coding:

1. Press the button Play/Pause 
2. When the play head is at the designated position, click the button Start of clip selection or press the F7 key on the keyboard. If necessary, use the arrow keys on the keyboard or click and drag the clip borders to fine-tune the start of the clip.
3. Resume playback and pause at the position where you want to end the coding. Click the button End of clip selection or press the F8 key. If necessary, make a fine adjust of the end of the clip.



# Coding in the Multimedia Browser

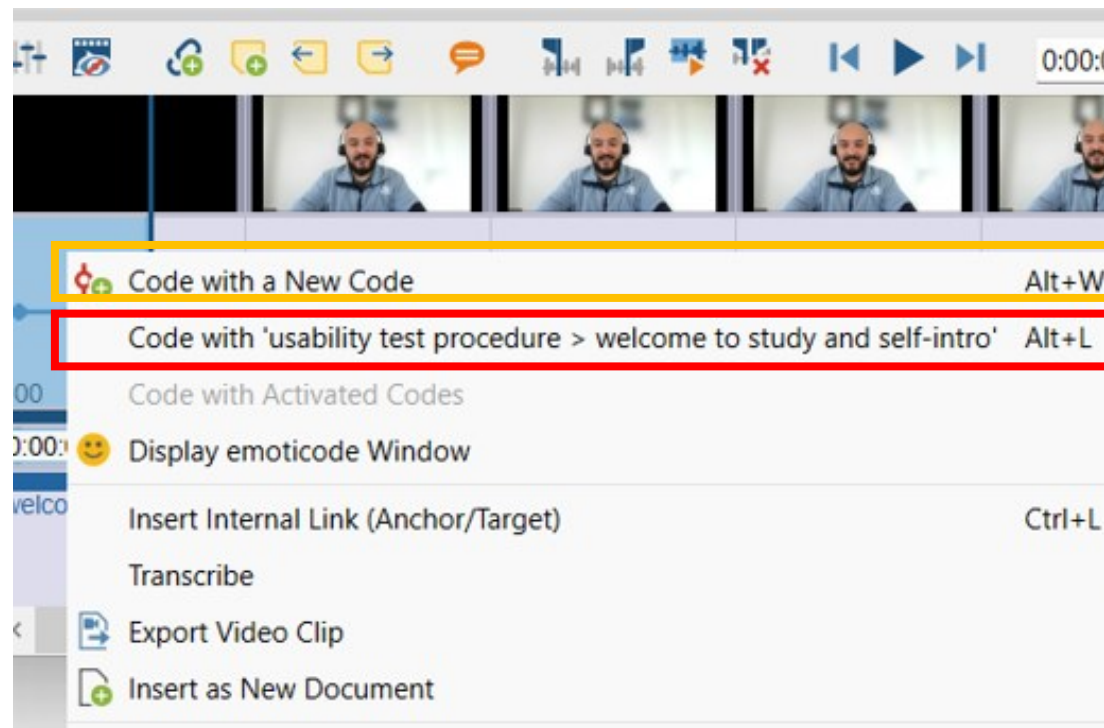


ready to code the selected segment now!



# Coding in the Multimedia Browser

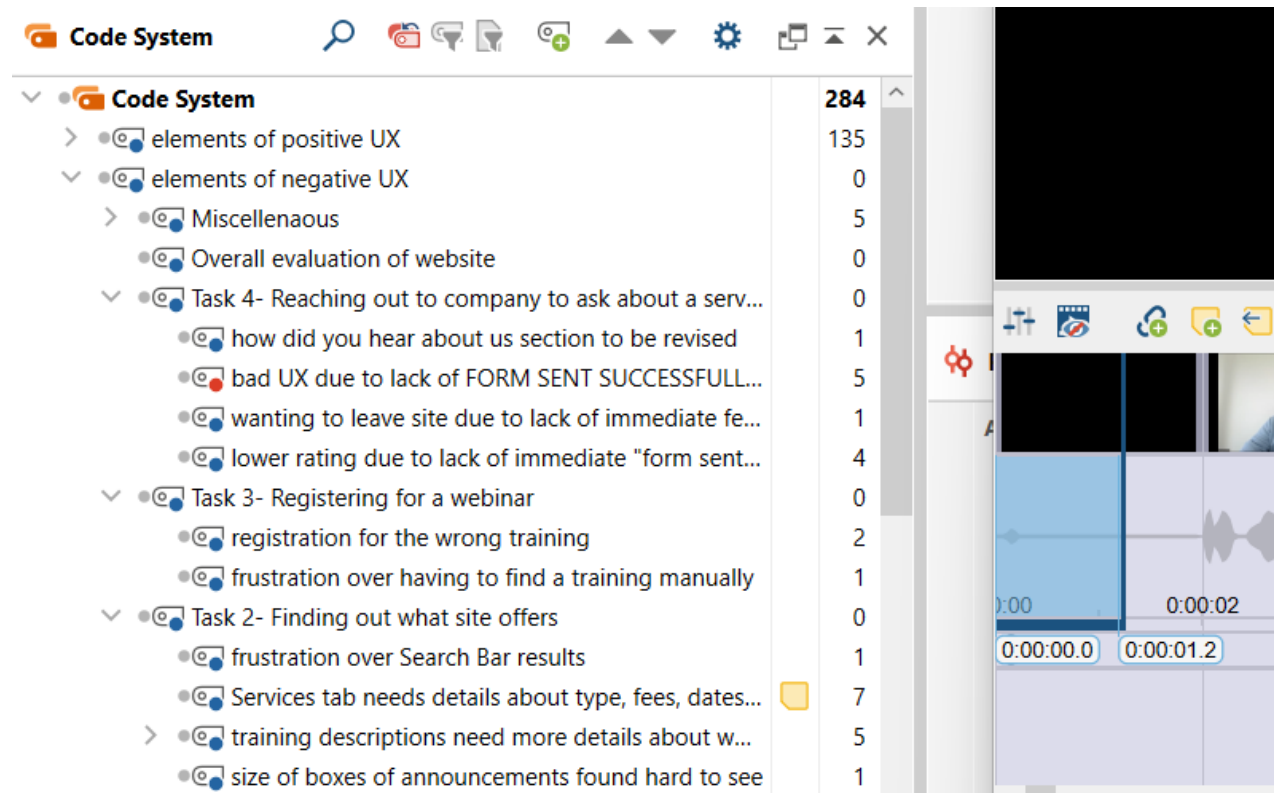
- right-click on the selected/marked area to open a context menu that has different options for coding



# Coding in the Multimedia Browser

OR

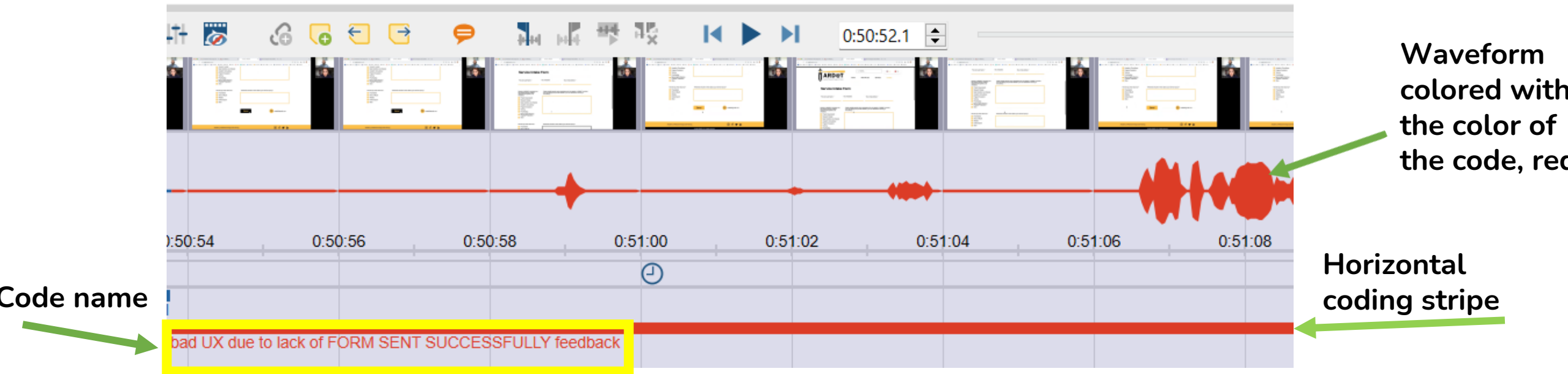
- drag and drop the selected area on to an existing code in the code system
- or drag and drop an existing code on to the selected clip area



# Coding in the Multimedia Browser

Displaying the coded segments in the Multimedia Browser:

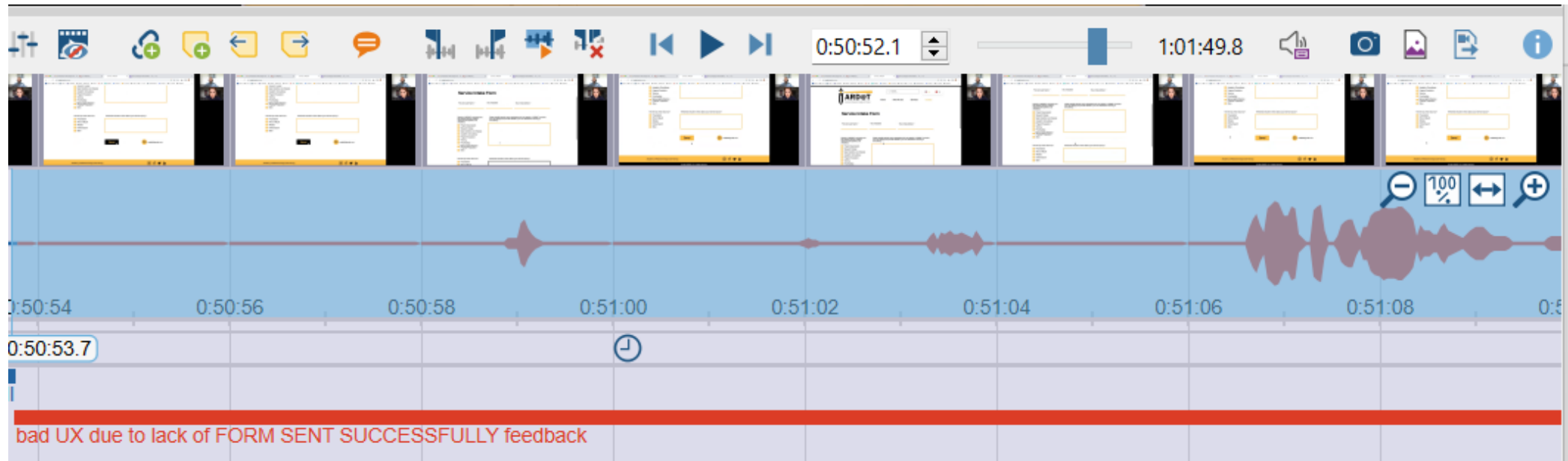
- coding indicated by a horizontal coding stripe
- code name on the left below the coding stripe
- the waveform colored with the color of the code



# Coding in the Multimedia Browser


Displaying the coded segments in the Multimedia Browser:

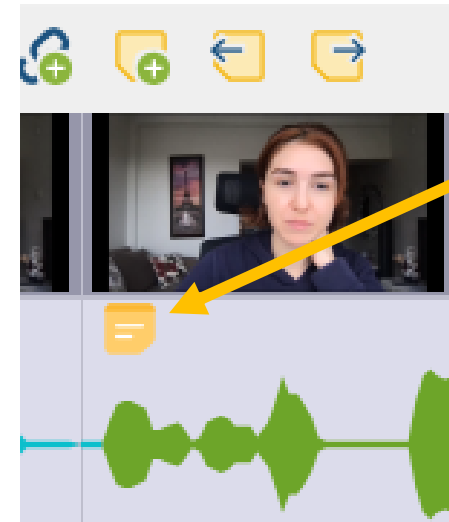
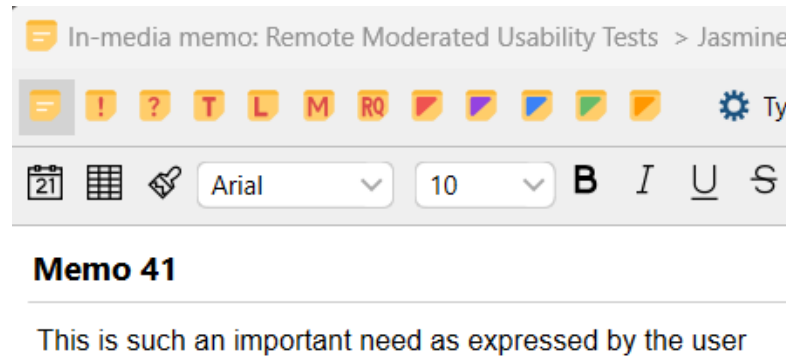
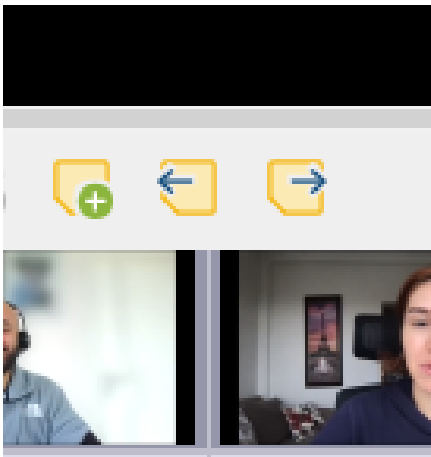
- click on a coding stripe to select a coded segment
- double click on the coding stripe to play the coded clip segment



# Adding memos to usability test video segments

To add memos to a selected segment,

- Click on the code stripe and select the coded segment
- Click on New memo  icon
- Type in your memo note in the text window and close the window
- See the memo icon attached to the very beginning of the corresponding selected segment



memo icon



# Exporting Usability Test Video Clips

**select short usability video clips and export them as distinct video files via “Multimedia Browser”**

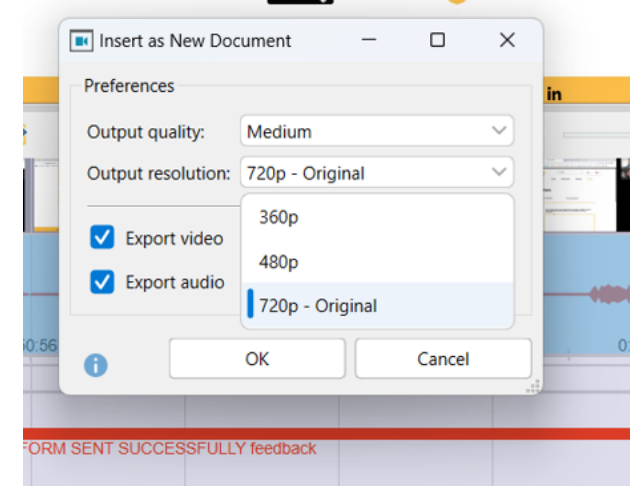
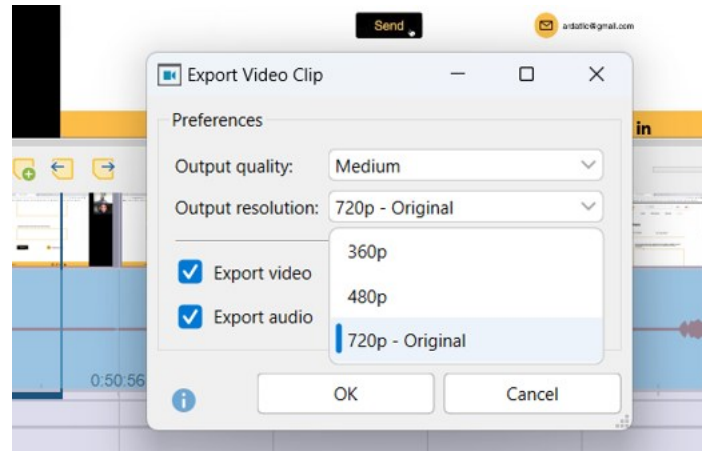
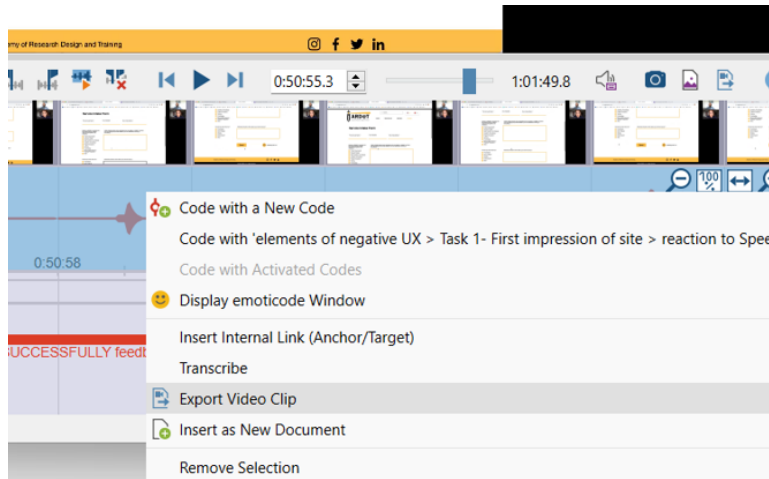
**insert these short clips as new video files or new documents into your MAXQDA UXR project**

- **useful for UXR presentations**
- **useful for UXR data analysis sessions**
- **useful for sharing the convincing voice of the user with stakeholders**

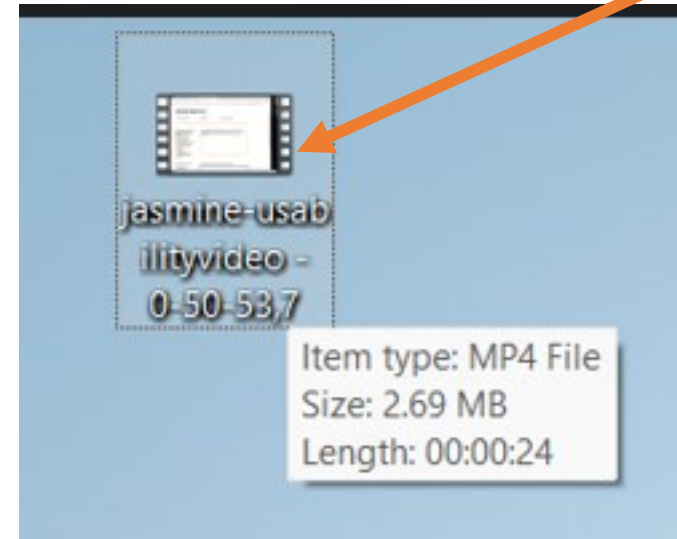
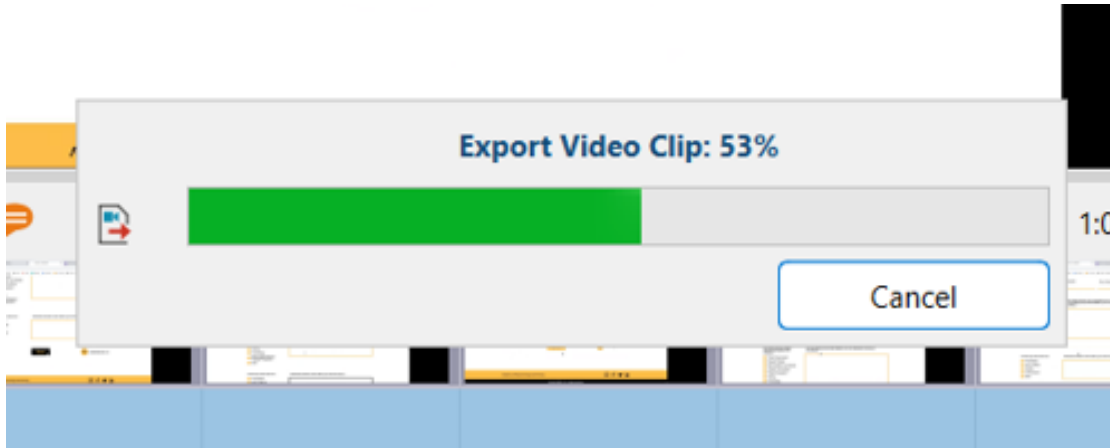


# Exporting Usability Test Video Clips

- select a section in your usability test video in the “Multimedia Browser”
- right-click on the selected section and choose Export Video Clip in the context menu
- in the dialog window that opens, specify the quality and resolution of the clip



# Exporting Usability Test Video Clips



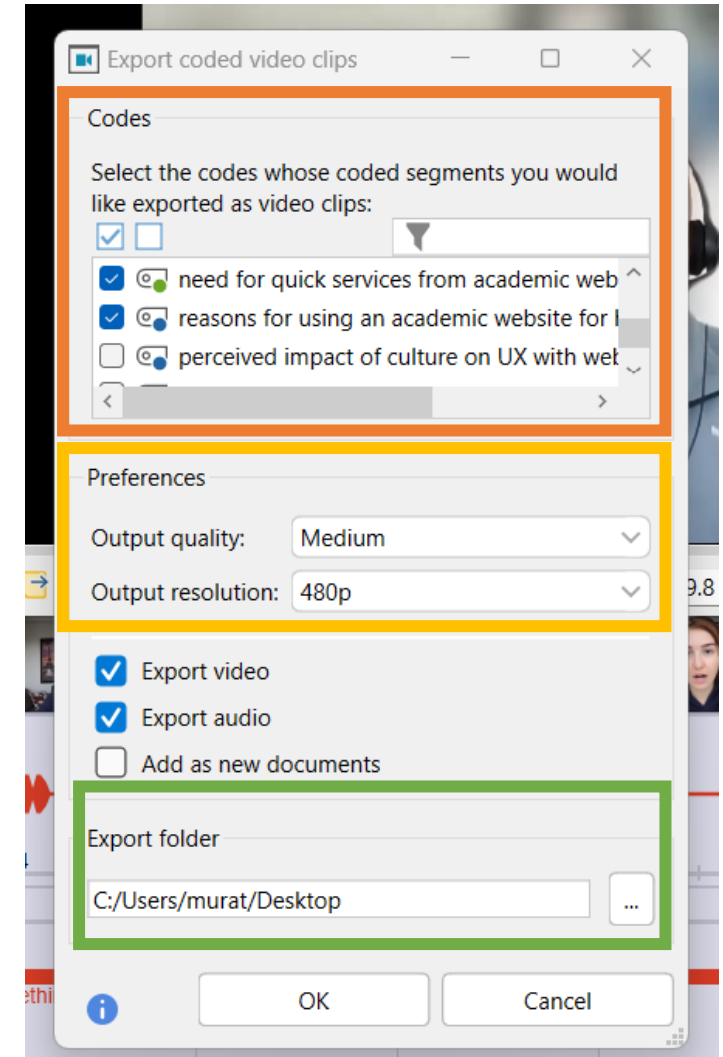
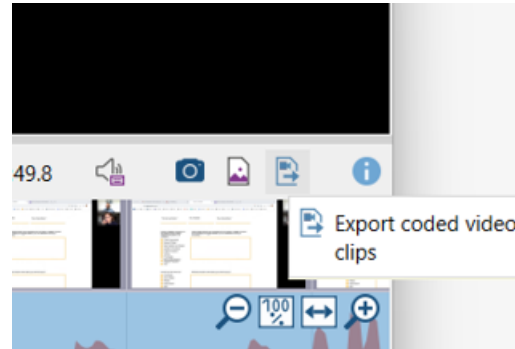
SINGLE VIDEO  
CLIP EXPORTED  
TO MY DESKTOP



# Exporting Usability Test Video Clips

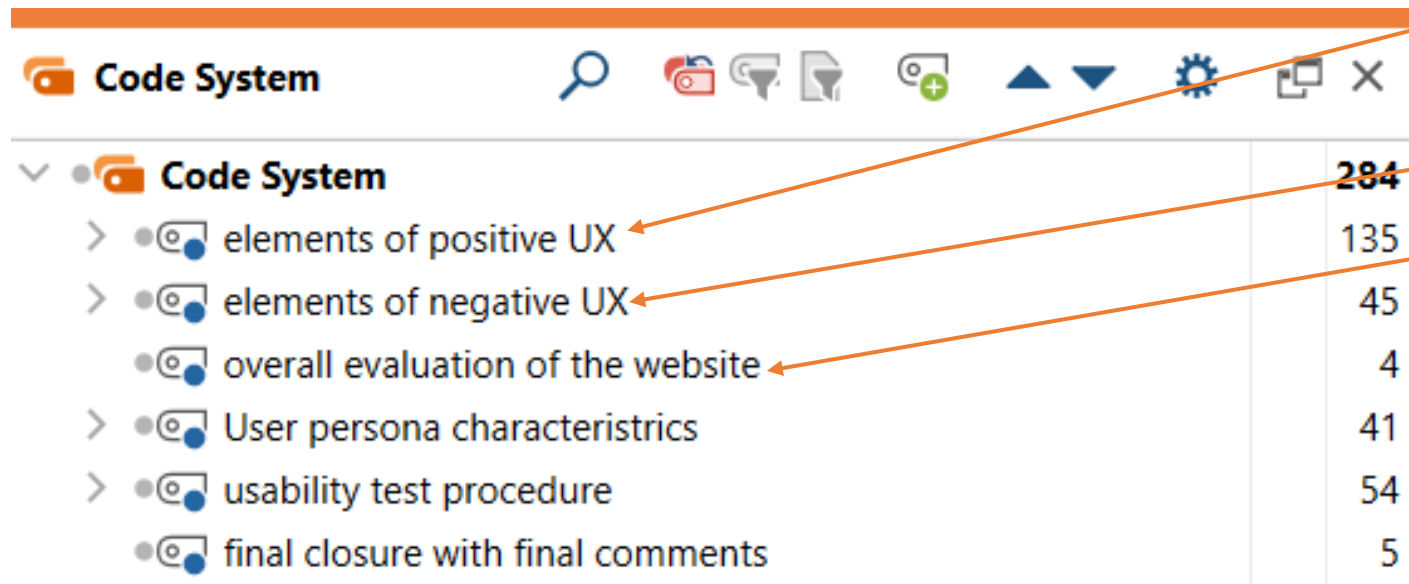
To export all the coded usability test video segments of one or more codes from the “Multimedia Browser”:

- in the toolbar, click on the Export coded video clips icon.
- in the dialog window, select the code(s) whose coded segment(s) you would like exported
- specify the quality and resolution of the clips, export folder, and click OK



# Code System of UX Issues

- a hierarchical structure of codes with multiple subcodes, followed by subcodes of subcodes
- all of the codes shown in the “Code System” window



The screenshot shows the 'Code System' window in MAXQDA. It displays a hierarchical list of codes on the left and their corresponding counts on the right. The codes are organized into a tree structure, with the root 'Code System' having a count of 284. Below it are several major codes, some of which are expanded to show subcodes. Arrows from external text boxes point to specific codes in the list.

Code System	284
elements of positive UX	135
elements of negative UX	45
overall evaluation of the website	4
User persona characteristics	41
usability test procedure	54
final closure with final comments	5

Major code with subcodes

Major code with subcodes

Major code with no subcodes



# Code System of UX Issues

- ▼ ● 🖥️ **Code System**
  - > ● 🖥️ elements of positive UX
  - ▼ ● 🖥️ elements of negative UX
    - > ● 🖥️ Miscellenaous
      - 🖥️ Overall evaluation of website
    - ▼ ● 🖥️ Task 4- Reaching out to company to ask about a serv...
      - 🖥️ how did you hear about us section to be revised
      - 🖥️ bad UX due to lack of FORM SENT SUCCESSFULL...
      - 🖥️ wanting to leave site due to lack of immediate fe...
      - 🖥️ lower rating due to lack of immediate "form sent...
    - ▼ ● 🖥️ Task 3- Registering for a webinar
      - 🖥️ registration for the wrong training
      - 🖥️ frustration over having to find a training manually
    - ▼ ● 🖥️ Task 2- Finding out what site offers
      - 🖥️ frustration over Search Bar results
      - 🖥️ Services tab needs details about type, fees, dates...
      - > ● 🖥️ training descriptions need more details about w...
      - 🖥️ size of boxes of announcements found hard to see



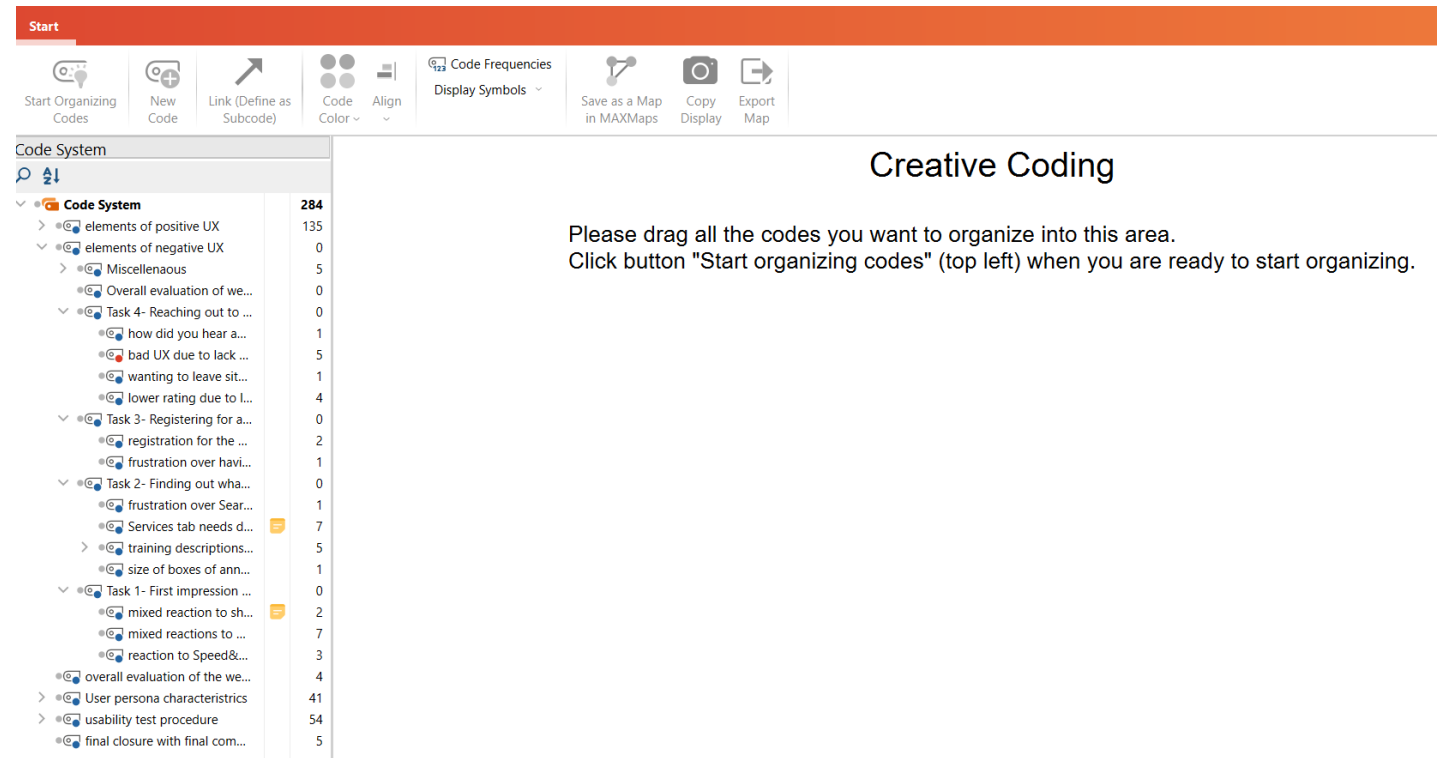
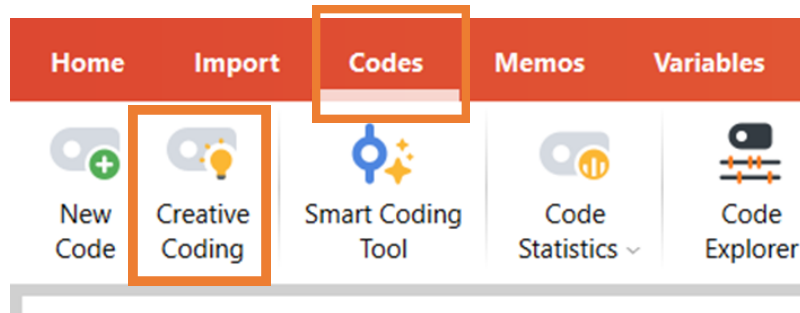
# Creative Coding to Organize UX Issues

- a creative process to generate and organize codes as user experiences including pain points or user issues in a hierarchical structure
- a large workspace on which to move UX issues, form meaningful UX issue groups, place UX issues that belong together next to one another, insert parent UX issue codes, rename codes, change their color, and create a logical structure
- should be used AFTER long periods of open coding and working closely with the codes



# Creative Coding to Organize UX Issues

- click Creative Coding in the Codes menu tab
- MAXMaps activating Creative Coding Mode



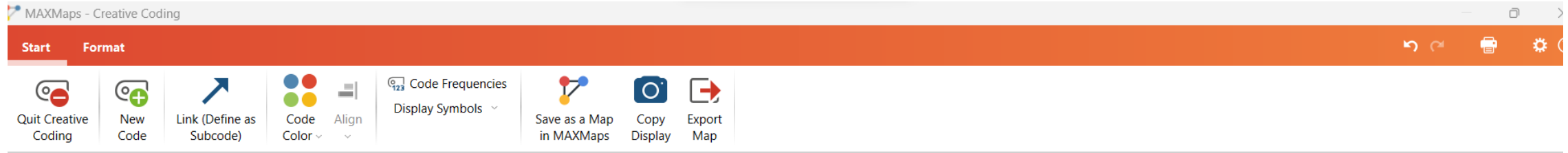
# Creative Coding to Organize UX Issues

Main steps for the Creative Coding process:

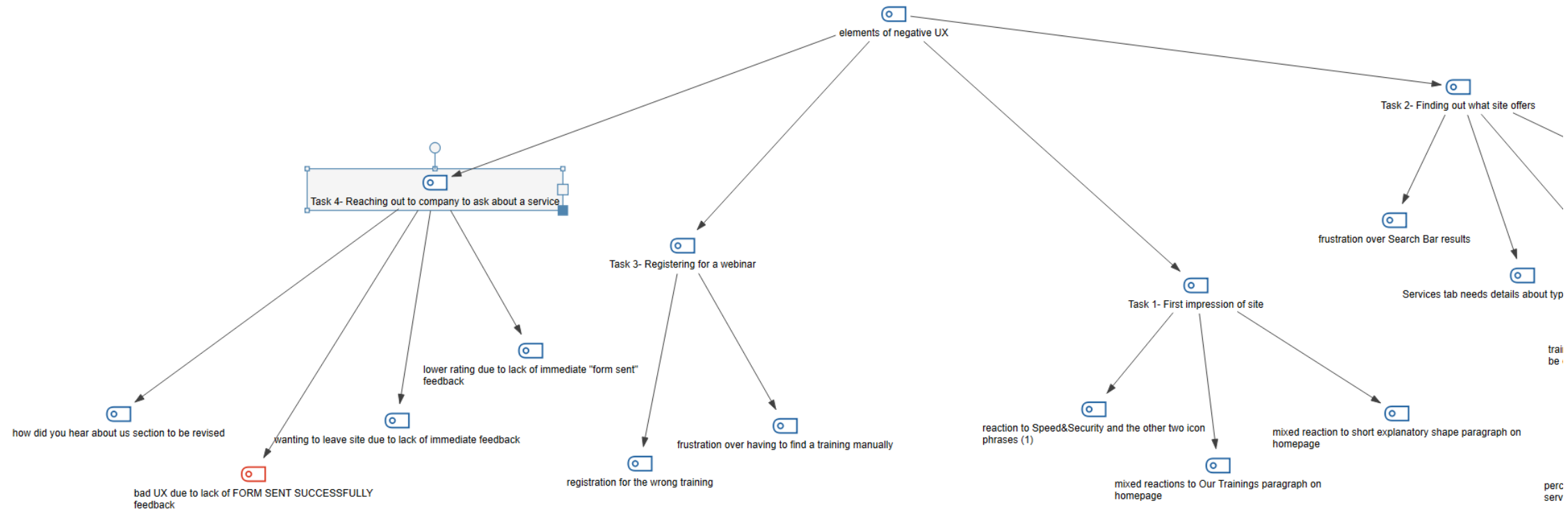
- drag the UX codes of interest from the "Code System" into the Creative Coding workspace with the mouse (subcodes automatically dragged with the main code). Remove the codes you wish BEFORE starting creative coding process
- when ready, start organizing the UX codes: create new codes and subcodes if necessary, add new links, change the color of the codes as desired and do several other format features



# Creative Coding: How It Looks Like



## Usability Test-UX Issues



# Creative Coding to Organize UX Issues

options available in Creative Coding:

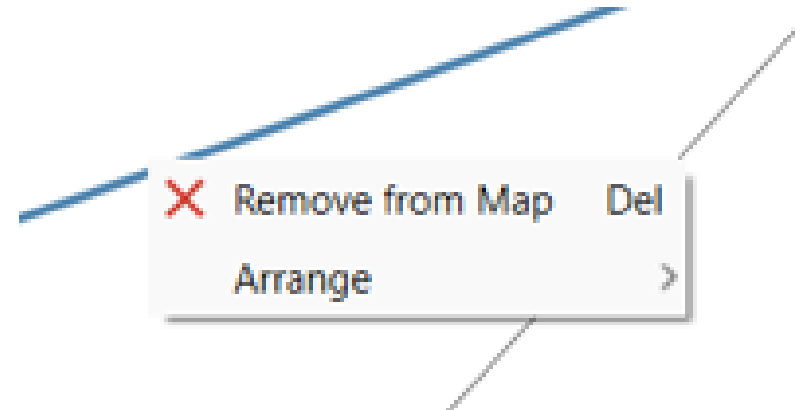
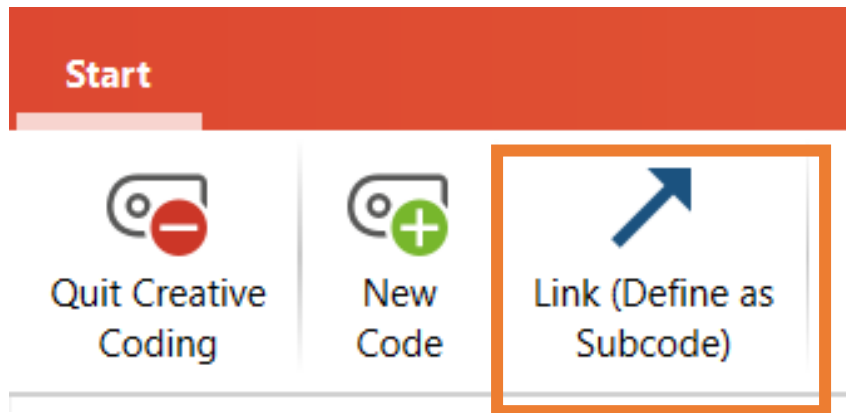
- creating relationships between codes as UX issues
- creating new codes as new UX issues
- merging codes as UX issues
- change code colors and appearances
- displaying code frequencies and coded segments
- getting a copy of creative coding map



# Creative Coding to Organize UX Issues

to create relationships between codes as UX issues

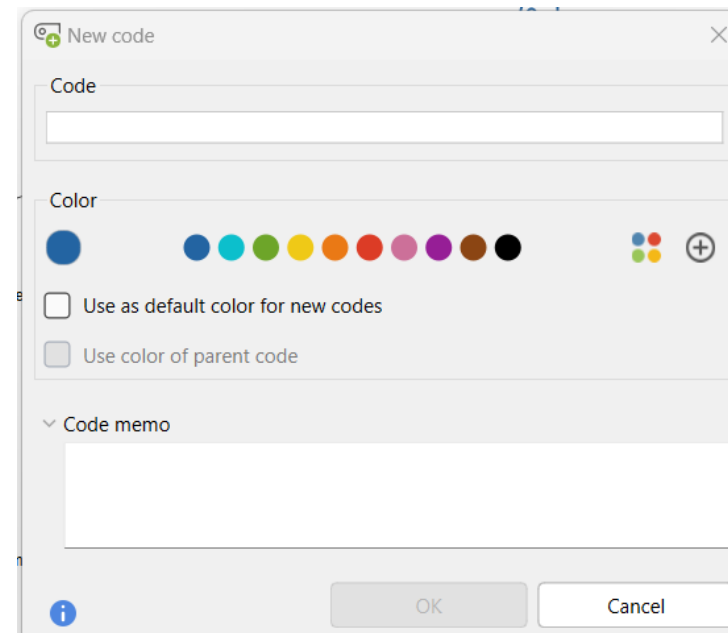
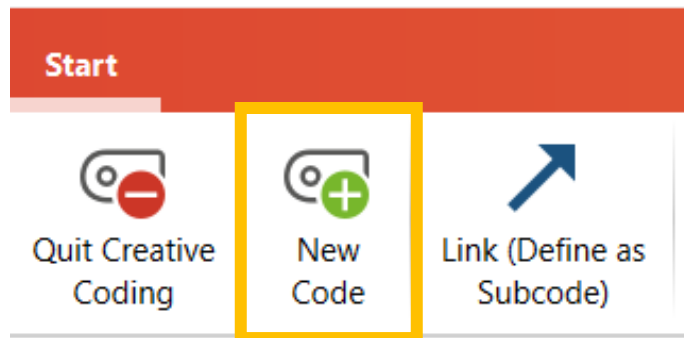
- click on Link (Define as Subcode) symbol on the Start menu tab
- click on the desired top-level UX issue code and draw an arrow to the desired UX issue subcode.
- to delete an arrow, right-click on it and select Remove from Map



# Creative Coding to Organize UX Issues

to create new codes as UX issues

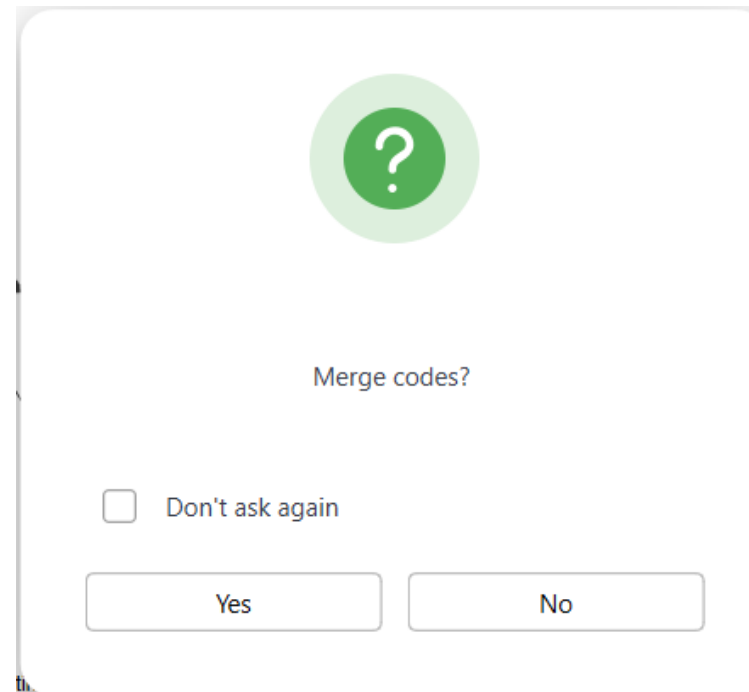
- click on the New Code symbol on the Start menu tab
- create the new code as another UX issue and see the new code in the top left
- rename the code by double-clicking on its label



# Creative Coding to Organize UX Issues

To merge two codes, proceed as follows:

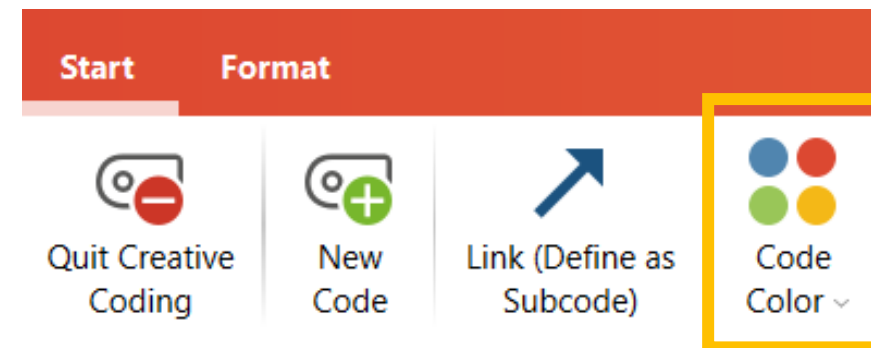
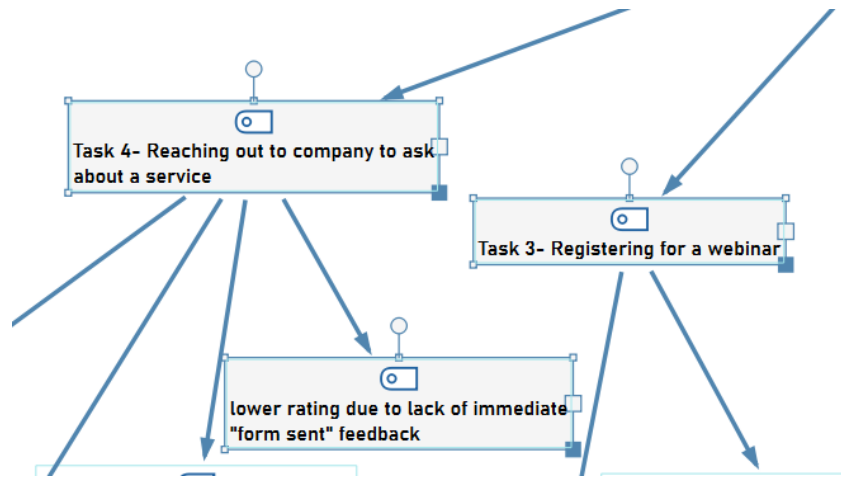
- drag a code with the left mouse button pressed down onto another code and release the mouse button on the code
- see the following confirmation message and click on Yes



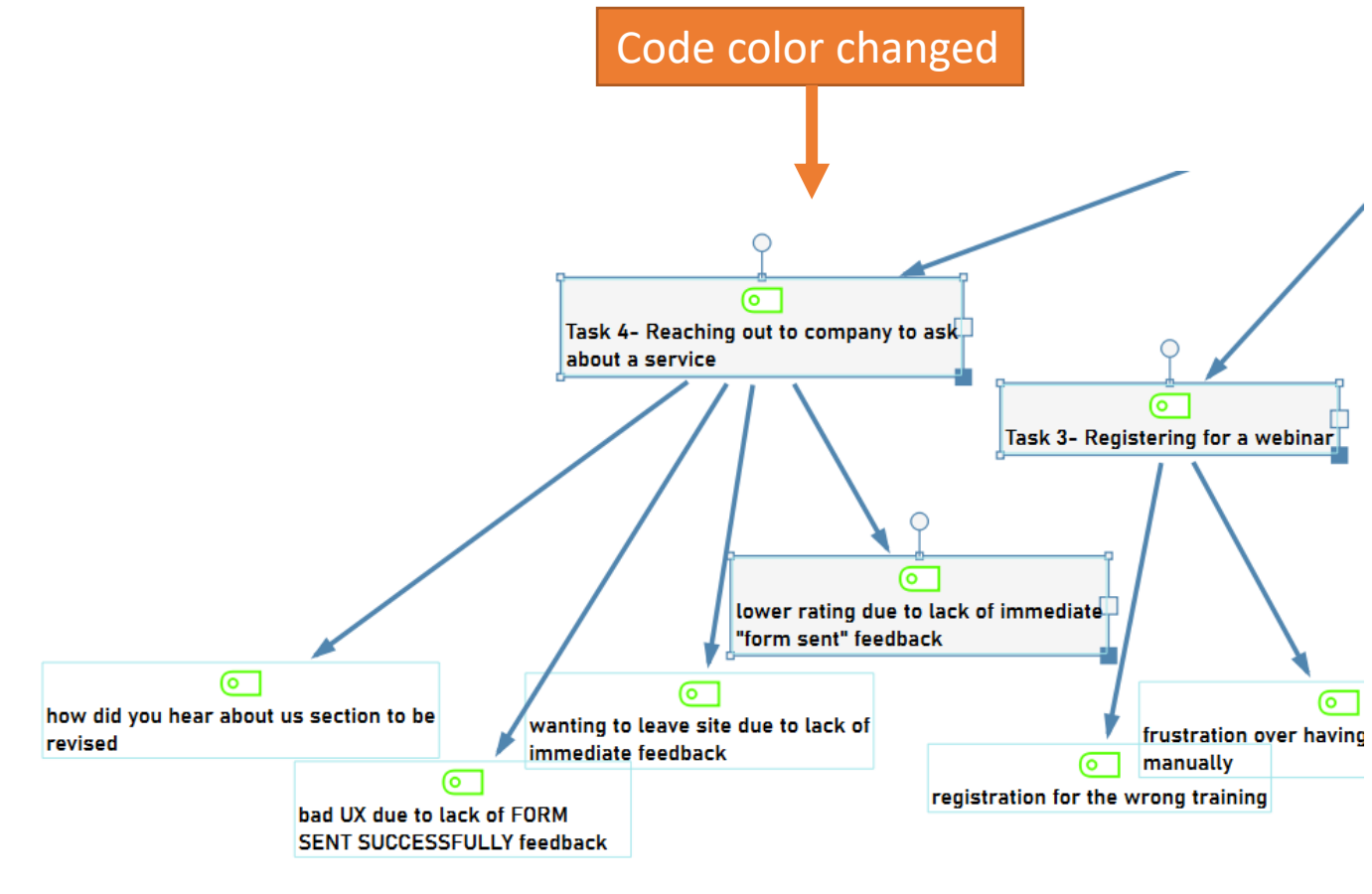
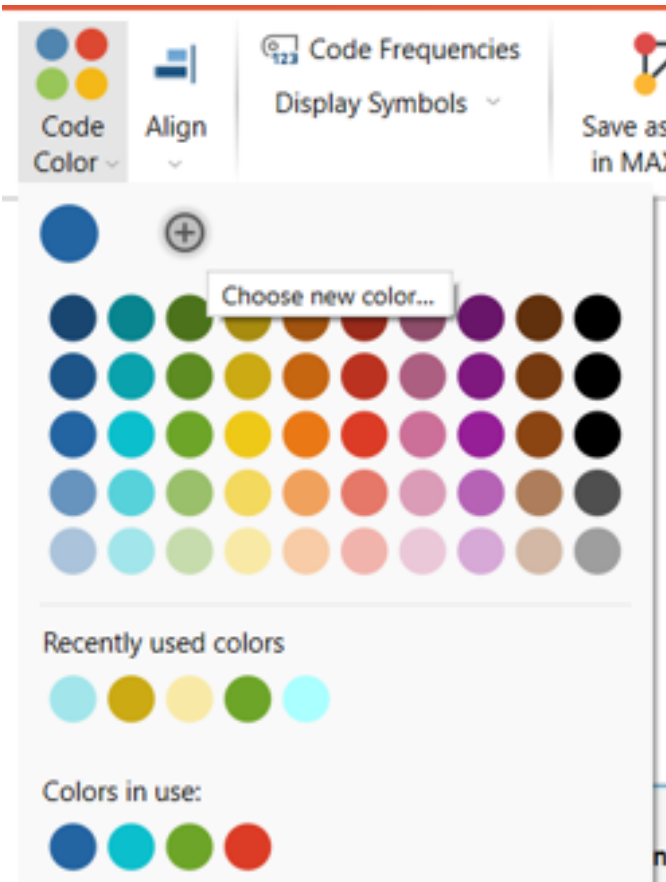
# Creative Coding to Organize UX Issues

To change the color and appearance of the codes:

- first, make sure that the Link Mode is off. If necessary, click on the white surface once to turn off Link Mode
- click the code whose color you wish to change (draw a border around the codes with the mouse to select multiple codes at once)
- once codes selected, click on Code Color and make changes accordingly



# Creative Coding to Organize UX Issues



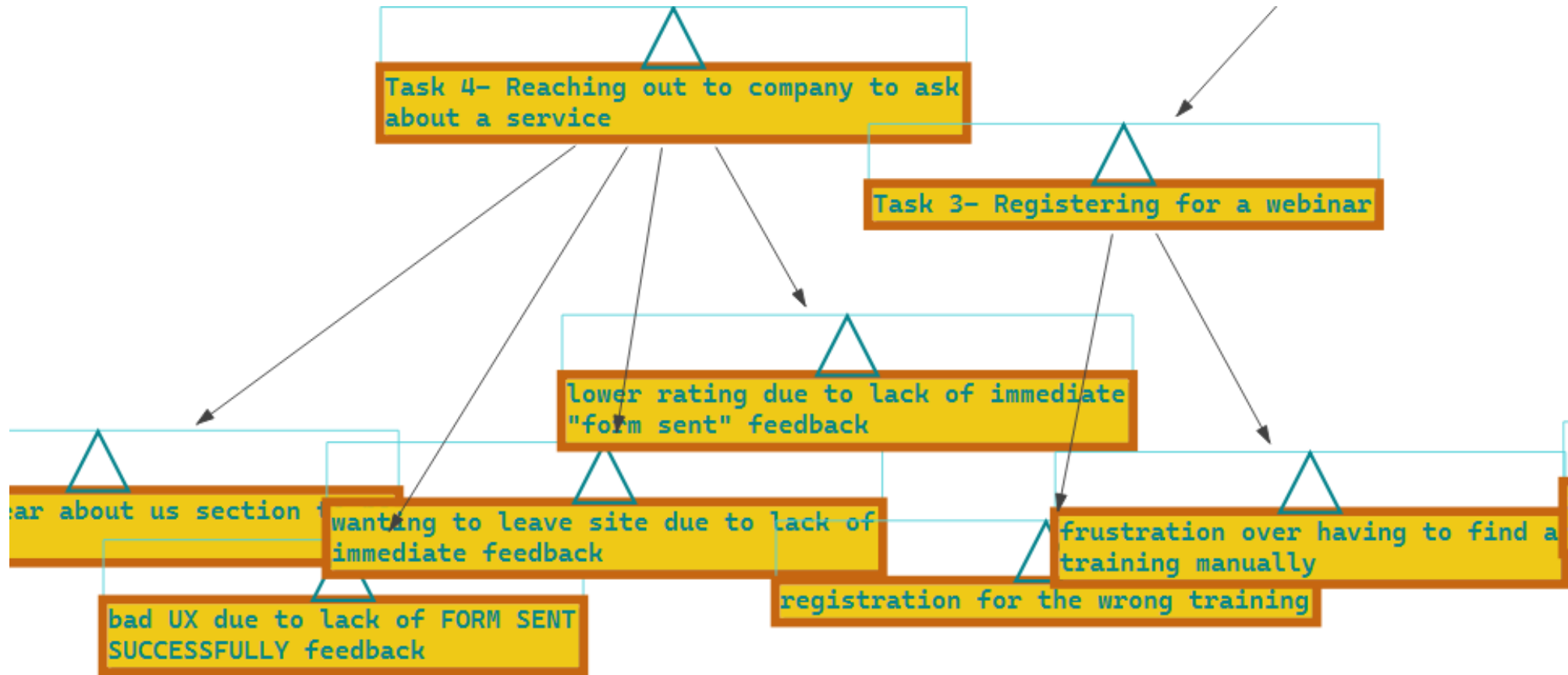
# Creative Coding to Organize UX Issues

To change the appearance of the codes and for several other formatting actions:

- select one code or codes to activate the Format menu tab (ctrl+A to select all the codes and subcodes on the map)
- change font, font size, font color; add borders, background colors; change or hide code symbols; change height and width of the codes and several other things...



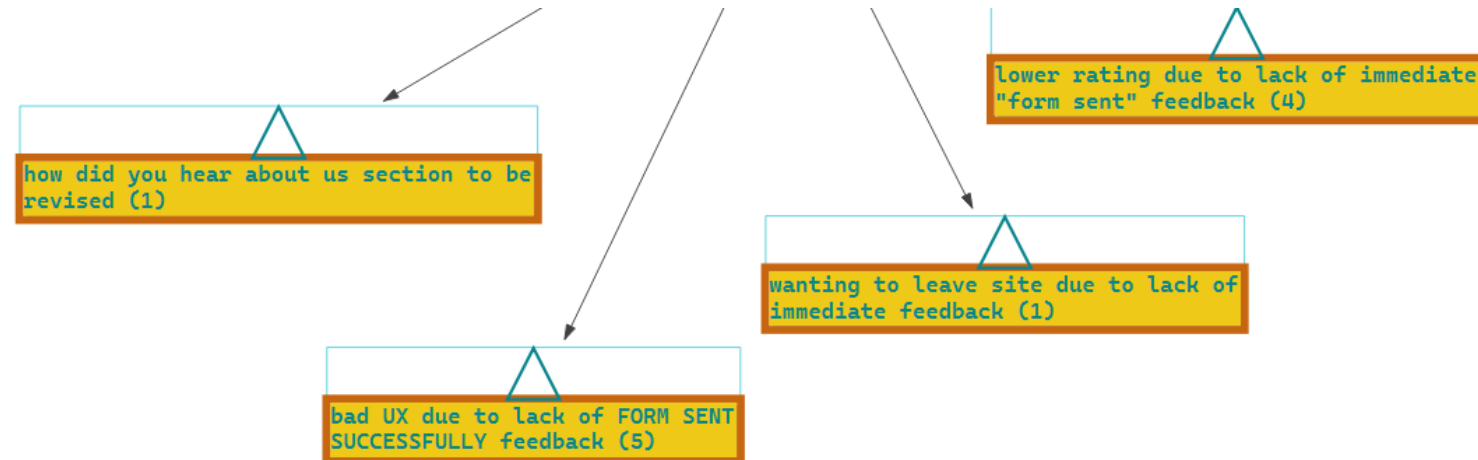
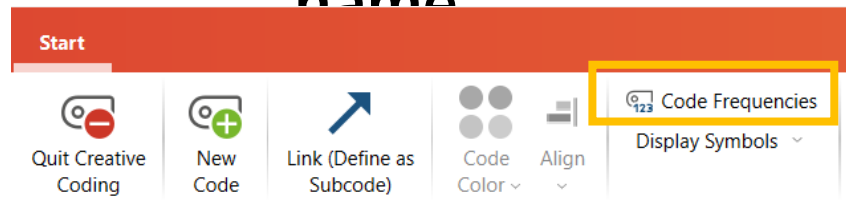
# Creative Coding to Organize UX Issues



# Creative Coding to Organize UX Issues

To display code frequencies and coded segments of a code:

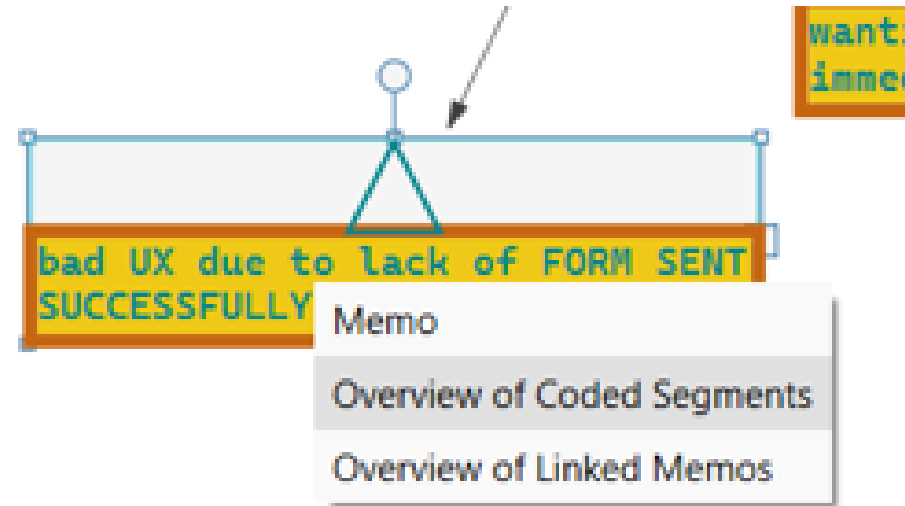
- clicking on the Code Frequencies symbol on the Start menu tab
- code frequency automatically displayed in brackets after the code name



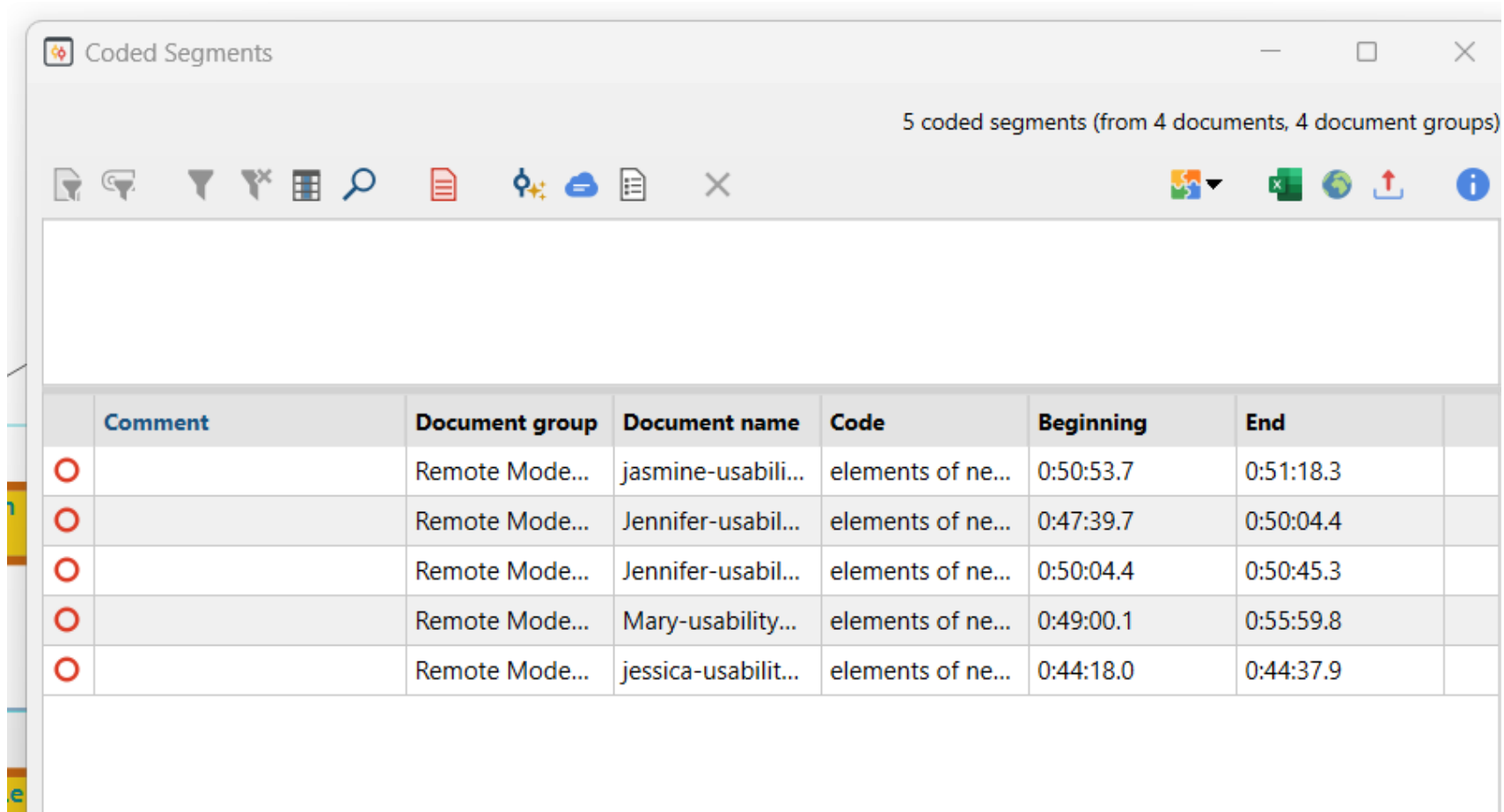
# Creative Coding to Organize UX Issues

To inspect the coded segments of a code:

- right-click on a code to see the context menu and choose Overview of Coded Segments



# Creative Coding to Organize UX Issues



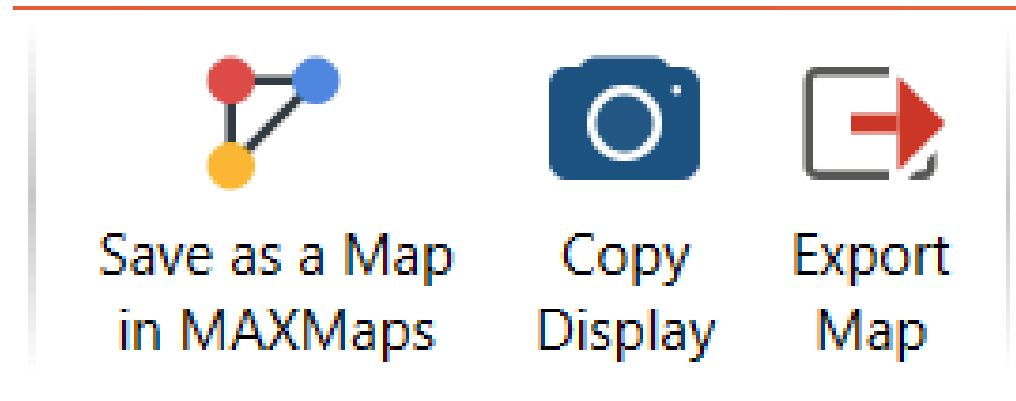
	Comment	Document group	Document name	Code	Beginning	End	
○		Remote Mode...	jasmine-usabili...	elements of ne...	0:50:53.7	0:51:18.3	
○		Remote Mode...	Jennifer-usabil...	elements of ne...	0:47:39.7	0:50:04.4	
○		Remote Mode...	Jennifer-usabil...	elements of ne...	0:50:04.4	0:50:45.3	
○		Remote Mode...	Mary-usability...	elements of ne...	0:49:00.1	0:55:59.8	
○		Remote Mode...	jessica-usabilit...	elements of ne...	0:44:18.0	0:44:37.9	



# Creative Coding to Organize UX Issues

To get a copy of your creative coding map:

- save it as a map on MAXMaps
- copy the display of the map on your clipboard
- export the map as an image file



# QTT Feature to Generate UXR Deliverables

**Questions - Themes -Theories (QTT):** a bridge between your MAXQDA project and your UX research report as a UXR deliverable

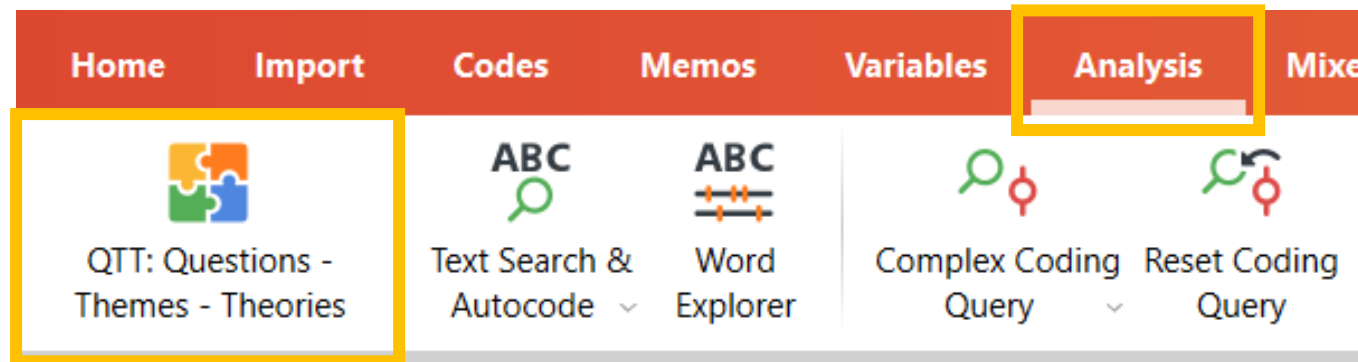
- a super memo to enter and bring together UXR findings, record conclusions, develop insights, and share design recommendations
- create a separate worksheet to include:
  - related codes & themes
  - important coded segments
  - related memos
  - visualizations and concept maps
  - integration of insights



# QTT Feature to Generate UXR Deliverables

To start the QTT workspace:

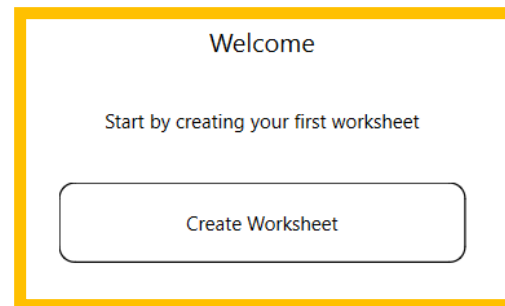
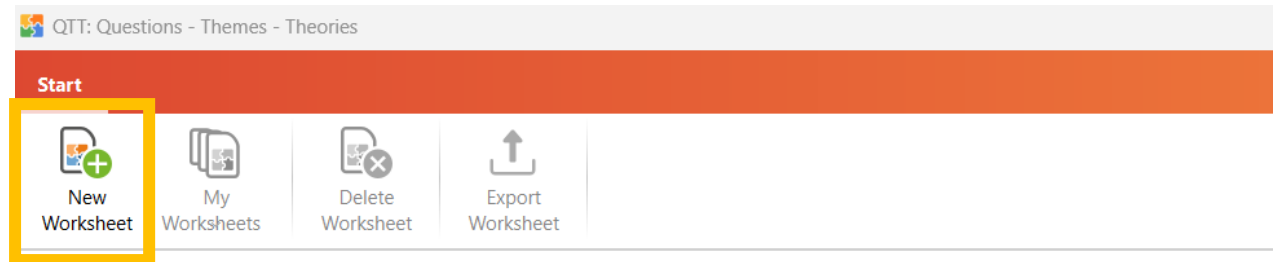
- go to Analysis menu tab
- click on QTT: Questions – Themes – Theories.



# Creating a Worksheet in QTT

To create a new worksheet in QTT:

- click on New Worksheet icon or Create Worksheet button in the center



# Creating a Worksheet in QTT

- enter a name for the worksheet at the top
- enter your UX research subject/topic and UX research questions

New Qualitative Study Worksheet

**Worksheet Name**  
Usability Test

**Subject**  
What are the subject and the topic addressed in your study?  
the usability test of certain features of the company website

**Research Question(s)**  
What are your research question(s) and which concepts do you address in the question(s)?  
Do the users discover the Services section easily? Can they find accurate/useful information within the Services section?  
Does Service Intake Form feature work efficiently and effectively?  
Can users successfully register for a service offered by the company?  
Can users successfully create a services request form? Can they submit it successfully?  
Are users satisfied with their interactions with the site? If yes, to what extent? If no, why not?

OK Cancel



# Creating a Worksheet in QTT

After clicking OK, the worksheet is created, and you can start inserting elements from your MAXQDA project into the worksheet:

---

Title Usability Test

Subject the usability test of certain features of the company website

Research Question(s) Do the users discover the Services section easily? Can they find accurate/useful information within the Services section?  
Does Service Intake Form feature work efficiently and effectively?  
Can users successfully register for a service offered by the company?  
Can users successfully create a services request form? Can they submit it successfully?  
Are users satisfied with their interactions with the site? If yes, to what extent? If no, why not?

Related Codes & Themes

Important Segments

Summary Tables

Related Memos

Visuals & Statistics

Concept Maps

Integration of Insights

Related Codes & Themes

+ Add Element(s)



# Inserting Elements into a Worksheet in QTT

## Related codes & themes

- Click the Add Element(s) button to get a selection dialogue with the current code system
- Select individual codes or click Activated Codes to insert the currently activated codes (if already activated in the code system).
- Click OK and see the selected codes inserted into the worksheet

The screenshot displays the QTT software interface. At the top, a horizontal menu bar contains several tabs: 'Related Codes & Themes' (highlighted with an orange border), 'Important Segments', 'Summary Tables', 'Related Memos', 'Visuals & Statistics', 'Concept Maps', and 'Integration of Insights'. Below this menu, the 'Related Codes & Themes' section is active, showing a title bar and a '+ Add Element(s)' button. Below the button, four example code segments are displayed, each enclosed in an orange border. Each segment consists of a small icon, a text snippet, and a 'Coded Segments' label with a red icon.

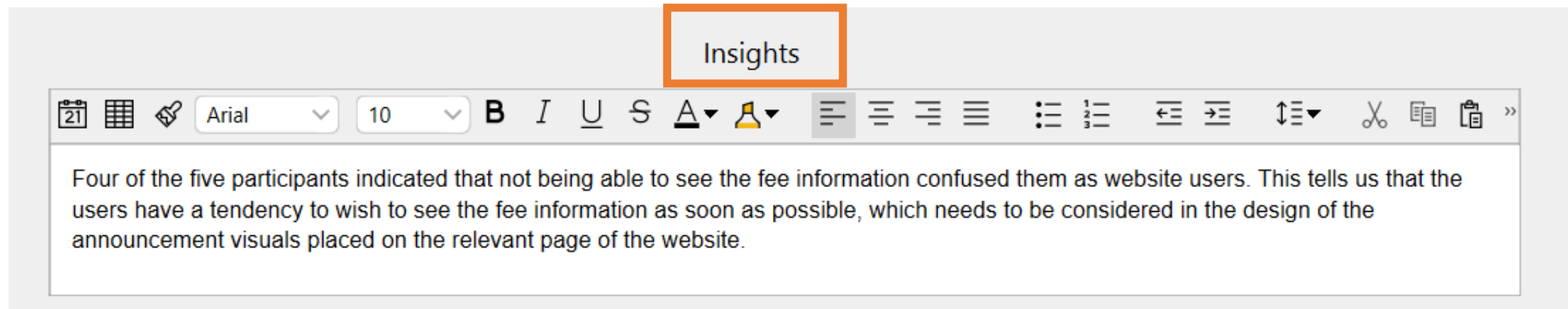
Code Segment
fee information seen as missing in ... Coded Segments
bad UX due to lack of FORM SEN... Coded Segments
frustration over having to find a trai... Coded Segments
frustration over Search Bar results Coded Segments



# Inserting Elements into a Worksheet in QTT

## Related codes & themes

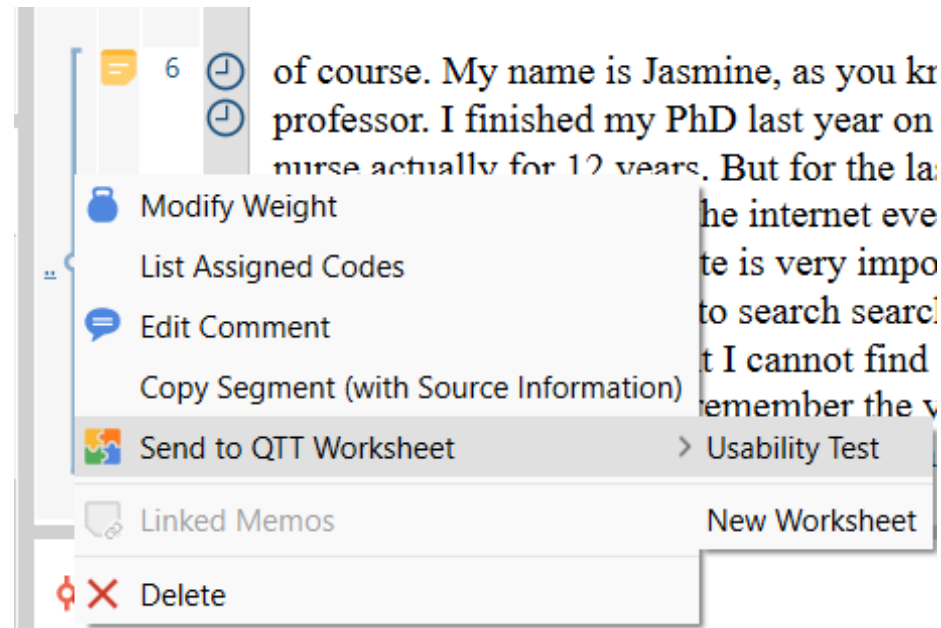
Below the codes you can record your UX insights about each UX issue code in the text box



# Inserting Elements into a Worksheet in QTT

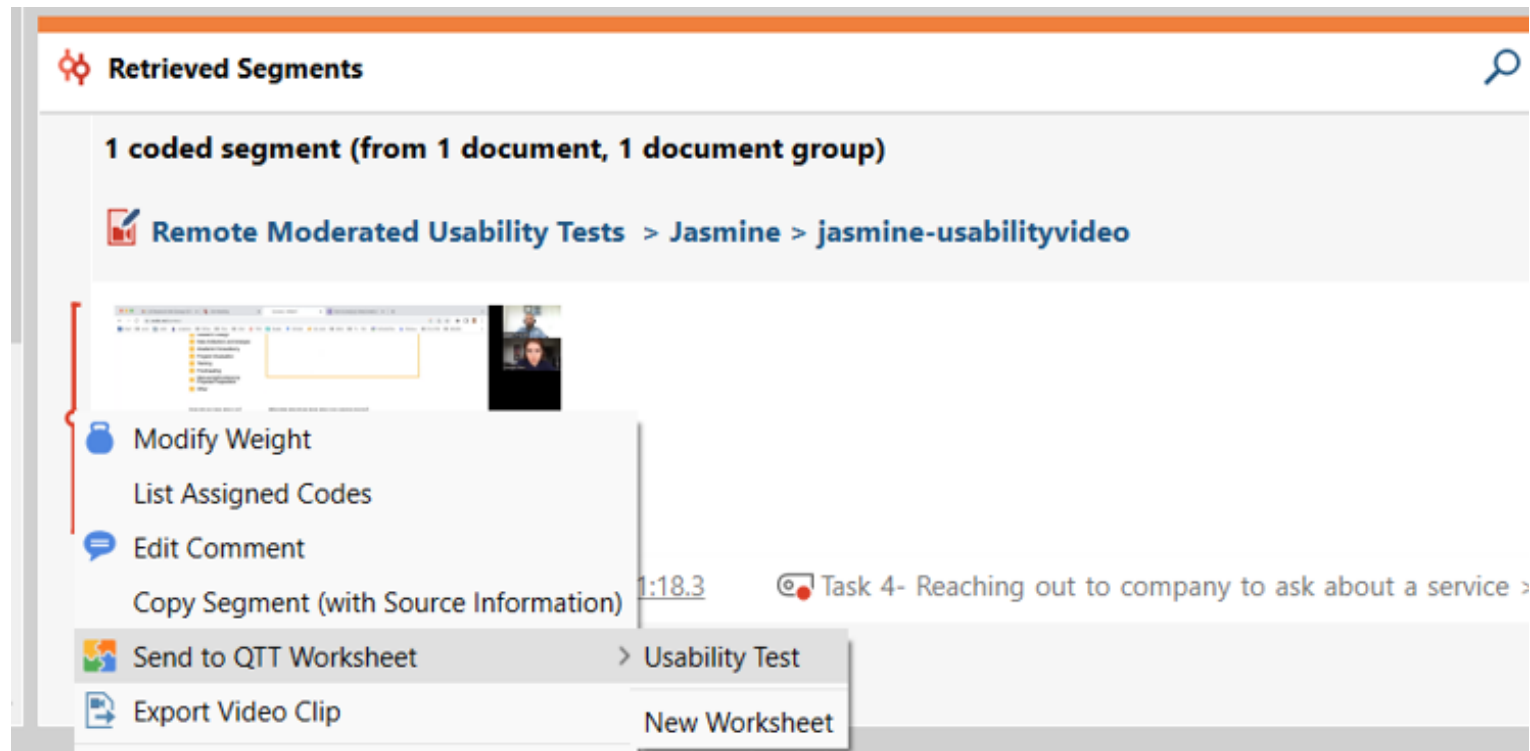
Important Segments: several ways to insert one coded segment (or several at once) into the QTT

- from the "Document Browser", right-click on the associated coding stripe, select the option Send to QTT Worksheet and then the desired worksheet



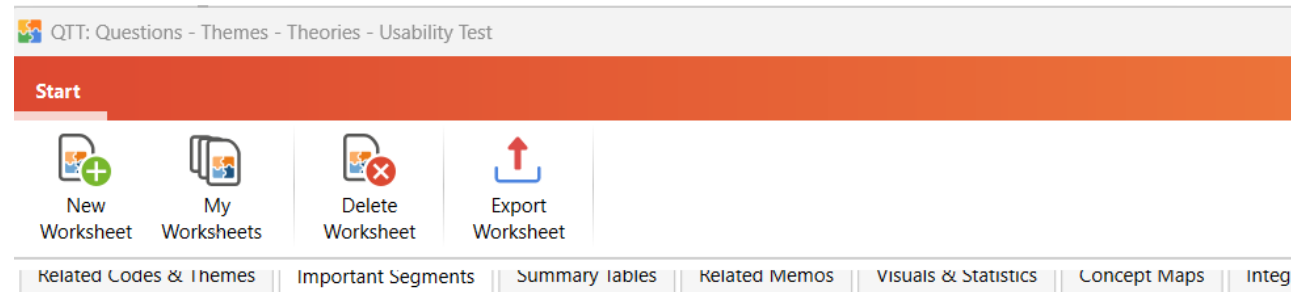
# Inserting Elements into a Worksheet in QTT

- from the "Retrieved Segments" window, right-click on the associated coding stripe, select the option Send to QTT Worksheet and then the desired worksheet



# Inserting Elements into a Worksheet in QTT

- alternatively, drag the coding stripe directly into the QTT window with the mouse



## Important Segments

Add segments from "Retrieved Segments" or "Document Browser" window by drag & drop of the coding stripe  
Add segments from "Overview of Coded Segments" by drag & drop of selected rows.

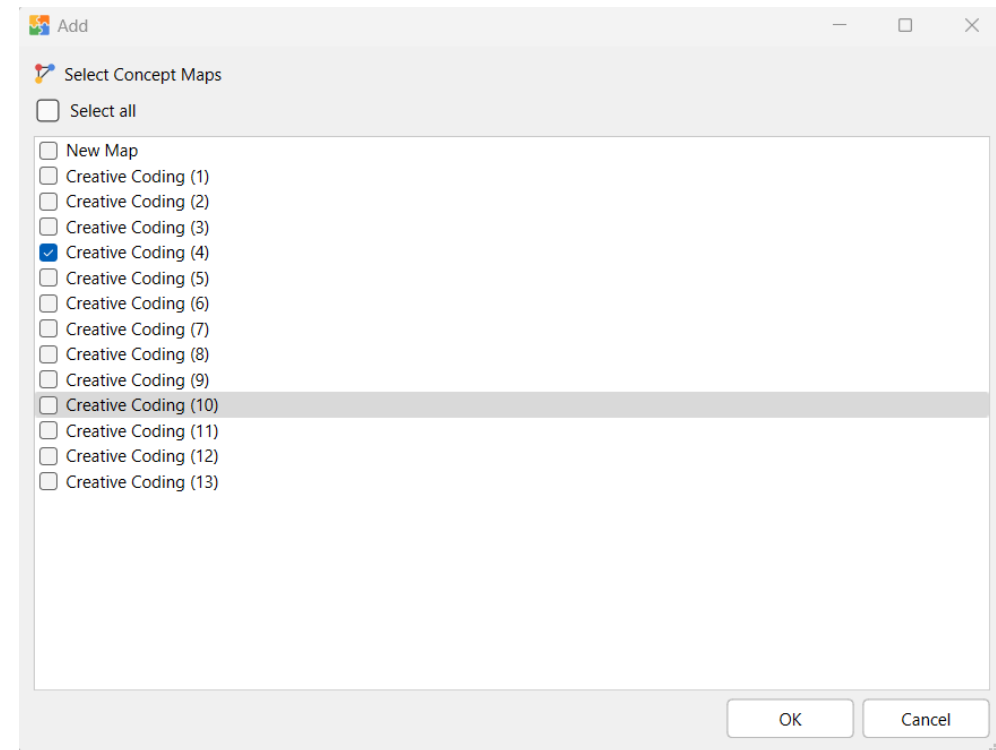


# Inserting Elements into a Worksheet in QTT

## Concept maps from MAXMaps



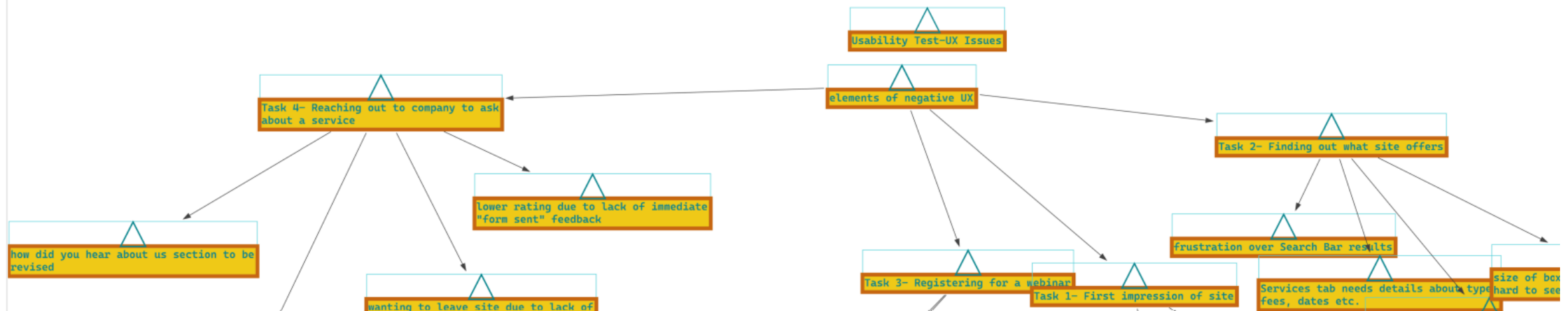
- click the Add element(s) button in the Concept Maps section to get a listing of all maps in the project.
- select a map and click OK



# Inserting Elements into a Worksheet in QTT

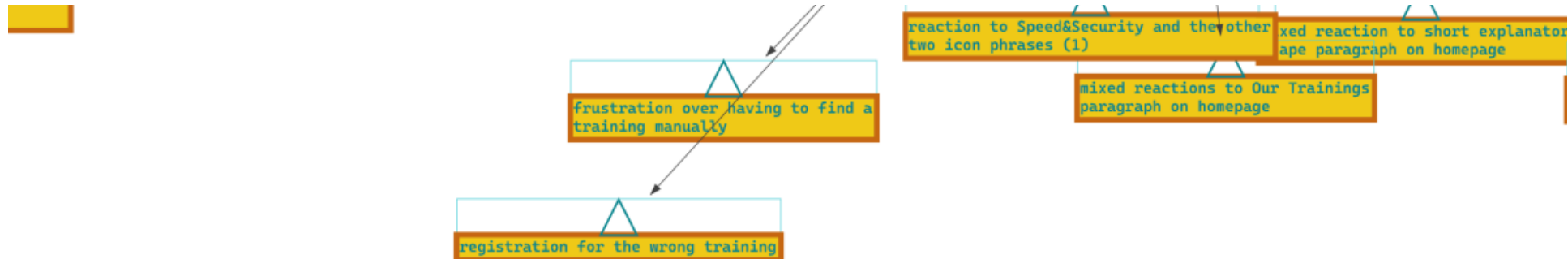
Related Codes & Themes	Important Segments	Summary Tables	Related Memos	Visuals & Statistics	Concept Maps	Integration of Insights
------------------------	--------------------	----------------	---------------	----------------------	--------------	-------------------------

## Creative Coding (4)



# Inserting Elements into a Worksheet in QTT

Below each concept map you can record your UX insights in the text box:



Insights

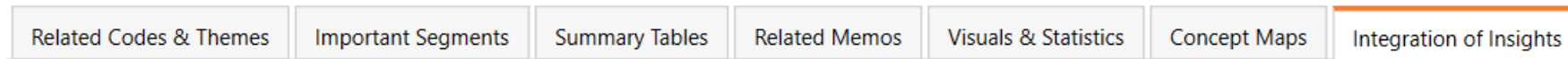
21 | Grid | Link | Arial | 10 | B | I | U | S | A | Color | Background Color | Bulleted List | Numbered List | Decrease Indent | Increase Indent | Paragraph Styles | Cut | Copy | Paste | More

Enter your insights here...

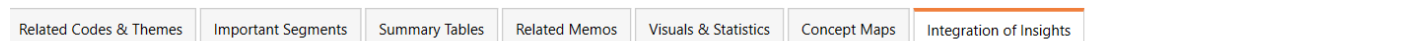


# Inserting Elements into a Worksheet in QTT

## Integration of Insights



the place where to bring together all UXR findings

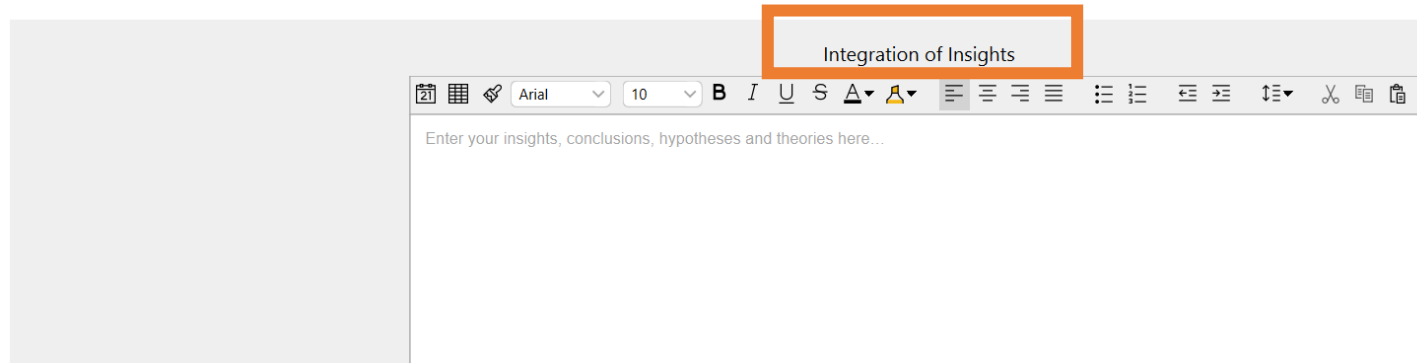


### Integration, Conclusions, Hypotheses, Theories

This is the place where all comes together: View all your insights and integrate them into overall conclusions, develop hypotheses and theories

Four of the five participants indicated that not being able to see the fee information confused them as website users. This tells us that the users have a tendency to wish to see the fee information as soon as possible, which needs to be considered in the design of the announcement visuals placed on the relevant page of the website.

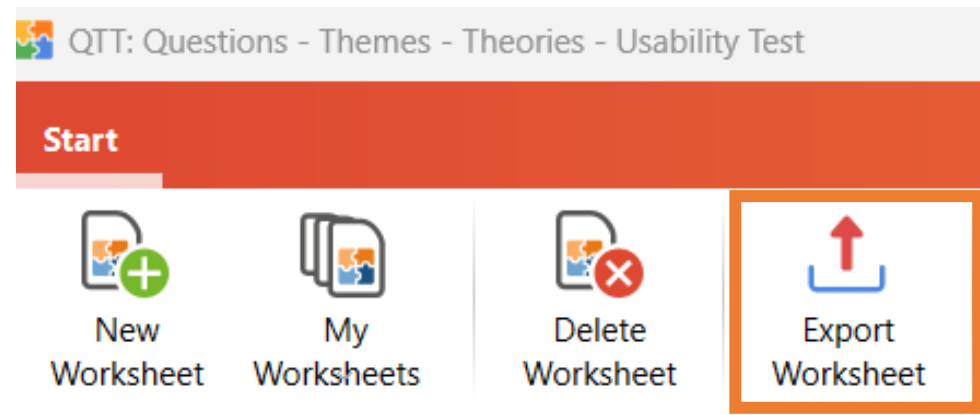
Related Codes & Themes



# Inserting Elements into a Worksheet in QTT

## Export Worksheet

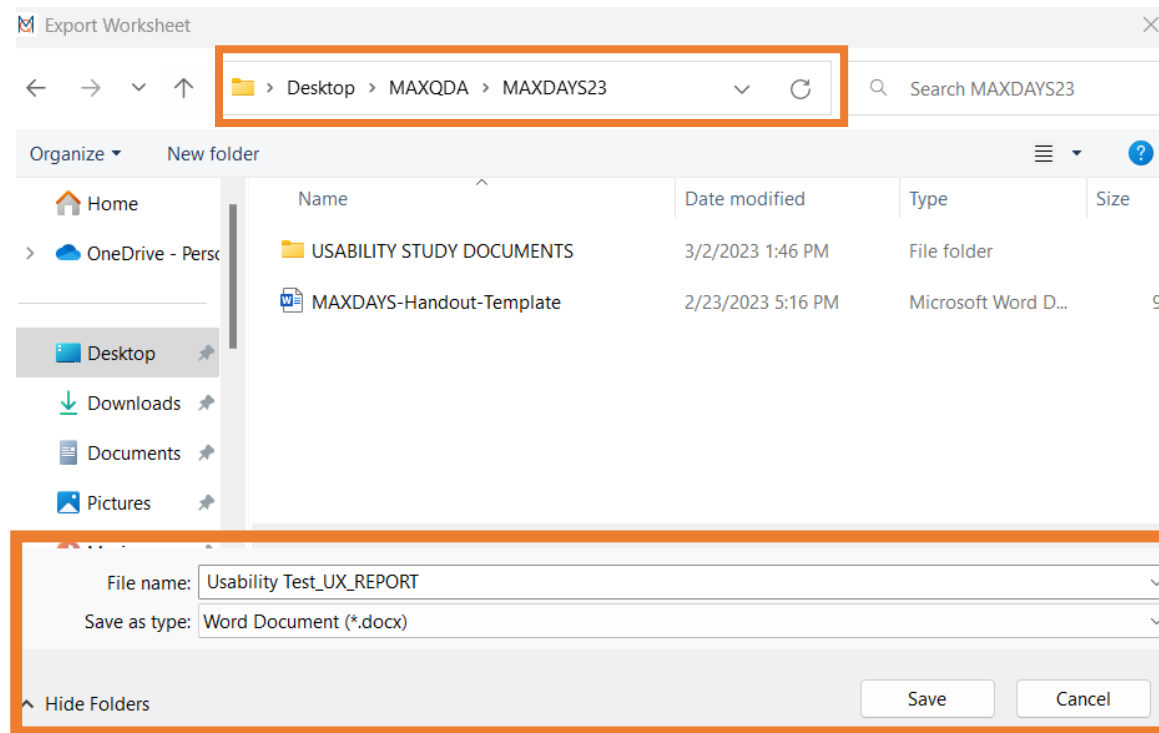
- to export the entire worksheet as a Word file in DOCX format, click the corresponding icon in the menu tab of the QTT window
- each section starting on a new page



# Inserting Elements into a Worksheet in QTT

## Export Worksheet

- specify the file name and location



# Usability Test

## Subject

the usability test of certain features of the company website

## Research Question(s)

Do the users discover the Services section easily? Can they find accurate/useful information within the Services section?

Does Service Intake Form feature work efficiently and effectively?

Can users successfully register for a service offered by the company?

Can users successfully create a services request form? Can they submit it successfully?

Are users satisfied with their interactions with the site? If yes, to what extent? If no, why not?

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## Related Codes & Themes

- elements of negative UX > Miscellaneous > fee information seen as missing in training announcements
- elements of negative UX > Task 4- Reaching out to company to ask about a service > bad UX due to lack of FORM SENT SUCCESSFULLY feedback
- elements of negative UX > Task 3- Registering for a webinar > frustration over having to find a training manually
- elements of negative UX > Task 2- Finding out what site offers > frustration over Search Bar results

## Insights

Four of the five participants indicated that not being able to see the fee information confused them as website users. This tells us that the users have a tendency to wish to see the fee information as soon as possible, which needs to be considered in the design of the announcement visuals placed on the relevant page of the website.

## Important Segments



elements of negative UX > Task 4- Reaching out to company to ask about a service > bad UX due to lack of FORM SENT SUCCESSFULLY feedback (Remote Moderated Usability Tests > Jasmine > jasmine-usabilityvideo, 0:50:53.7 - 0:51:18.3) (Weight score: 0)

