



Documenting and Archiving the Research Process

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When it comes to quality criteria and standards in qualitative research, the criteria of plausibility, confirmability, reliability, credibility, and auditability each play a significant role. Ensuring these criteria are met involves comprehensively documenting the research process throughout every stage of a project—from its conception, through the data collection phase, to the final analysis. MAXQDA lets you do all this easily and effectively. Every stage of the data analysis process can be documented: the original recordings of interviews, the transcriptions, videos and source material synchronized with these recordings, records of the interview conditions, the developed categories and their definitions, the category system and its development, and much more. On the one hand, you have the analysis and presentation of the results, and on the other you have a record of the complete research process. This chapter focuses on the latter: how the progression of a project can be documented and archived. We will therefore examine some of the features and functions of MAXQDA that we have already covered from this fresh perspective and introduce some additional functions designed specifically for this purpose.

In This Chapter

- Using memos throughout the research process: project descriptions, postscripts, and code definitions
- Using the Logbook as a research diary
- Getting to know MAXQDA's documentation functions
- Documenting the category system with the Codebook
- Compiling code assignments using the Smart Publisher
- Creating an audit trail: how did everything develop during the analysis process?
- Archiving the data and analysis work and passing these archives on

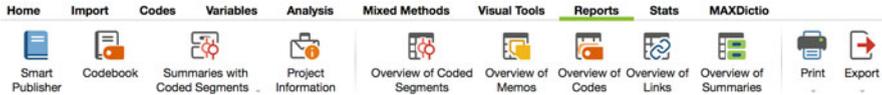


Fig. 20.1 Functions included in the “Reports” ribbon tab

The Duty to Document the Research Process

Plausibility, credibility, and auditability are key quality criteria for qualitative research. Adequate documentation of the research and analysis process plays a vital role in this context. The recipients of this documentation should be able to see which method was chosen and how it was implemented in the project. A study involving the analysis of open interviews or expert interviews using the qualitative content analysis method, for example, should document the following (Kuckartz, 2014, pp. 155–158):

- The process of selecting research participants
- The interview guidelines
- The accompanying questionnaire, if one was used
- Information about the length of the individual interviews as well as the range of interview lengths
- The rules according to which the interviews were transcribed
- At least one transcript as an example of the collected data and style of transcription (if required by the assessors of a thesis, research paper, etc.)
- The category development process over the course of the analysis
- The category system, including examples, i.e., coded segments of individual categories

You can access an overview of your project via **Reports > Project Information** (Fig. 20.1), which includes—among other information—the project description provided in the project memo, as well as the total numbers of documents, document groups, categories, and code assignments.

Both the “Code System” and the “Document System” can be exported and printed to help you keep a record of your category system and processed cases. You can do both via the **Export** or **Print** options, likewise provided in the **Reports** ribbon tab.

Memos as Important Documentation Tools

Ideally you should start documenting the research and analysis process from the very beginning of a project. MAXQDA’s memos are one of the key tools available for this purpose. Table 20.1 provides an overview of the different types of memos and how they can be used to help document your work.

Table 20.1 Overview of different memo types for documenting a project

Memo type	Available where?	Role in documenting a project
Project memo	The highest-level entry, “Documents,” in the “Document System”	Project description: design, sample, surveys
Document group memo	Each respective document group in the “Document System”	Description of document group and, if applicable, the criteria for the selection of research participants and/or the sampling strategy
Document memo	Each respective document in the “Document System”	Postscript, information about the process of this interview, possibly also a case summary
Code memo	Each respective code in the “Code System”	Category definitions with examples extracted from the data
Free memo	The Overview of Memos in the “Reports” tab; or create a new memo via “Free Memo” in the “Analysis” tab	Any information not linked to specific documents, document groups, or codes, e.g., the interview guideline

Chapters 3 and 5 describe in detail how to work with memos. The export options, which you can access via *Reports > Overview of Memos*, are also important in this regard; these allow you to export a selection of memos as files in RTF format for Word, or as Excel files, so that they can serve as the basis for the documentation section of a project report, thesis or research paper.

The Logbook as a Digital Research Diary

The practice of keeping a research diary has its origins in ethnology and field research, but merits being adopted by other disciplines, too. The research diary is your constant companion throughout the research process, ideally from the very beginning. Not only should you record everything that happened throughout the project, and what you learned from research participants in the field, you should also note down your own reflections as well as plans for further surveys and analyses. In other words, the research diary has a dual function; on the one hand, it is an instrument that serves as a documentary and memory aid, that is, it is in effect a self-referential tool; and on the other hand, it is the optimal basis for creating a comprehensible and detailed description of the research process for others, e.g., the scientific community. In the latter respect, the research diary is also directed outward, as a form of “presentation.”

MAXQDA enables you to create and continuously maintain your research diary using the “Logbook” function. The word “logbook” is in fact a borrowed nautical term. In the seafaring context, it is used to record significant events and observations in a daily diary. The MAXQDA logbook has a similar function. Here you can record all the events and processes surrounding the project and data analysis work. You can open MAXQDA’s Logbook via the *Home* ribbon tab. A window will then open with a toolbar below the header. The symbols are largely self-explanatory; they serve to

format the text of the Logbook, i.e., to select a font, font size, or font color—and this Logbook can also be printed and exported as a file.

You can add a new entry by clicking on the *New logbook entry* icon  at the far left of the toolbar. This causes the current date, time, and user name to be recorded in the Logbook. The Logbook is structured like a scroll, i.e., new entries are always added at the top of the chronological list.

Exporting and Printing a Text Together with Codes and Paragraph Numbers

There will only very rarely be a need to prepare a complete record of your raw research data, as just 20–30 open interviews would produce a considerable amount of text, enough to quickly fill a filing cabinet if printed out. Very often, however, one or more examples of the raw data collected are included in the appendix to a research paper or thesis—especially for doctoral and master’s theses. In these cases, it is helpful to create a version of the text with paragraph numbers. To do this, follow these steps:

- Open the relevant text.
- Click on the *Export displayed document* icon in the “Document Browser.”
- In the dialog box that opens select RTF as export format, which is recognized by Word and other word processing programs.
- Be sure to check the option *As table with paragraph numbers*.

The exported text is always saved as a table, the first column containing the paragraph numbers. You can also export several texts at the same time by selecting *Export documents* in the context menu of a document group in the “Document System” window.

If you need a printed version of the text, you can either print the generated and saved export file or click the *Print document* icon in the “Document Browser.” When you print directly from MAXQDA, you can adjust the following settings in the print dialog box:

- Number of copies
- Individual page selection
- Portrait or landscape format
- Page margins
- Headers and/or footers
- Printed page numbers
- Printed visual display of coded segments
- Printed visual display of memos
- Maximum width of the coded segments column

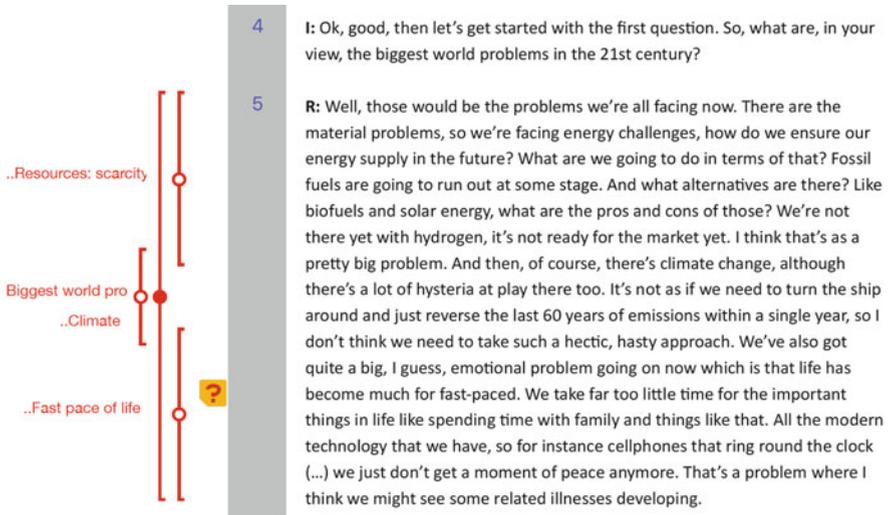


Fig. 20.2 Text excerpt with visualized code assignments and memos

To document your analysis procedure and the coding work performed, it is often useful to prepare a sample text or text excerpt in which the coding stripes are displayed at the edge of the page, and, if necessary, the coded text passages are also highlighted in color. Figure 20.2 shows a prepared text excerpt like this. Instead of a printout, you can also export a PDF file to archive or distribute electronically by choosing this file type in the export dialog box.

Documenting the Coding Frame and the Coded Segments

Category-based analysis methods naturally focus on categories and their definitions. You can easily generate an overview of your codes via **Export > Code System** or **Print > Code System**, both of which are available in the **Reports** ribbon tab. The export function allows you to specify the output format, and, if needed, you can also export the corresponding code memos. Please note that the function **Codes > Export Code System** creates a MAXQDA-specific file that can be used for transferring the code system to other MAXQDA projects and is not suitable for purpose of documentation.

The **Reports > Codebook** function lets you automatically generate a codebook with all categories and their definitions. All or only selected codes are listed in the Codebook in the same order as they appear in the “Code System,” and the corresponding code memo is provided for each of them. Further options allow you to include code and subcode frequencies and to standardize the memo font type. The

generated Codebook then contains the category definitions of the individual codes as recorded in their respective code memos. Hence, the Codebook function can save you a lot of work when creating an appendix for your dissertation or for research reports.

The Codebook is exported in RTF format and can be easily edited and adapted further using standard word processing programs. It contains a cover sheet with the title “Codebook,” the project name, and the creation date. The second page lists the code system in a table format. The main section contains each respective code with its corresponding memo in the order listed in the “Code System.”

The Smart Publisher, accessed via *Reports* > *Smart Publisher*, is another convenient tool that automatically generates a report of the code assignments in your project. We described this function in detail in Chap. 9, including its various options. In the context of documenting a project, however, the Smart Publisher can generate a list in a uniform layout of the coded segments for one or more selected categories as well as their source information.

Audit Trail: How Did the Project Develop During the Analysis?

An audit trail is generally defined as a chronological record of performed actions and procedures. In empirical social research, this trail might record the development of a category system, for instance. In quality criteria stipulations, you will often find the term “auditability,” which refers to the same thing in practice.

A simple, yet very effective way to ensure that you leave an adequate audit trail for your project is to duplicate and save copies of your MAXQDA project files at regular intervals. You can do this using the *Save Project As* option in the *Home* ribbon tab. The current date should be added to the suggested file name, and then click “no” to the question whether you want to continue working with the newly saved copy.

To specifically document the development of your category system during the analysis process—or of individual categories and subcategories—we recommend that you create a visual representation of these at various intervals, using MAXMaps as described in Chap. 17. You can access MAXMaps via the *Visual Tools* ribbon tab. Drag the codes whose development you want to trace onto the workspace, and then add their subcodes. You can set the width of the linking lines between them such that they indicate the frequency of the subcodes. If you create maps like this at several points during the analysis process, you can visually illustrate the development of the code system later, e.g., in a PowerPoint presentation. You can find a detailed description of working with MAXMaps in Chap. 17.

Sharing and Archiving MAXQDA Projects and Data

Suppose the supervisor of a master’s thesis or dissertation wants to gain an impression of the analysis work completed so far and look at what has been coded with which codes, what the code system looks like, and so on. This raises a few questions for the student, including “Which elements do I leave in the project, and which do I take out?”, “Can I just pass on the raw data as it is?”, and “Moreover, my supervisor may not have a MAXQDA license. What then?”.

Let us answer these questions one by one. Personal notes, unfinished ideas, and so on should not be included in the shared project. And, if you have not done so already, you must render the data completely and consistently anonymous prior to passing it on to others. Since every case needs to be anonymized, you should complete this process with your project, first. Then click on *Save Project As* (in the *Home* ribbon tab) to create the version you are going to share. The elements not required, e.g., personal memos, will have to be removed from this copy. In this form, the project can then be passed on to supervisors and assessors. A MAXQDA project usually consists of only a single file—but this is not the case if it includes multimedia files. These files, including PDF files over a certain size (which can be adjusted in MAXQDA’s global preferences), are saved externally. The function *External Files* (in the *Home* ribbon tab) provides an overview of the number, size, and location of these external files (Fig. 20.3).

External files can be compiled in a zip archive using the *External Files > Bundle External Data Files* option, available in the *Home* ribbon tab. This zip file is named “projectname.mx18.zip” and is saved in the same folder as the project file. You can then pass it on along with the MAXQDA project file, and, provided it is contained in the same folder as the project, it will automatically be unpacked in the folder for external files when the MAXQDA project is opened at its destination.

But what if your assessors do not have a MAXQDA license? In this case they would presumably not be able to do much with the project file. However, the “MAXQDA Reader” is available for this purpose. The Reader is a free MAXQDA version, which can be used to browse through projects and trace completed analytical work. This version does not allow the user to edit or process the data or to

File name	Path	Size	State
1700016.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700016.pdf	118.24 KB	Original location
1700029.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700029.pdf	473.65 KB	Original location
1700044.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700044.pdf	1.19 MB	Original location
1700071.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700071.pdf	138.82 KB	Original location
1700123.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700123.pdf	136.76 KB	Original location
1700130.pdf	/Users/stefanraediker/Documents/MAXQDA/Externals/1700130.pdf	129.64 KB	Original location

Fig. 20.3 List of externally stored files

actively code it; instead, it makes projects accessible to specific target groups—it can also be used in museums and libraries, for instance.

In the case of final theses, such as bachelor's and master's theses or dissertations, the question arises as to what should be documented and whether it should be included in the text of the thesis itself or separately, for example, in the form of an appendix or an accompanying DVD. It is difficult to set out any universal rules for this, since there are often institution-specific conventions and/or special requirements made by assessors. In other words, we recommend you first find out what is expected in your specific case and only then start working on the corresponding documentation. As a general rule, the central codes of your project or your developed category system—depending on the analysis method used—should be documented in the text of the thesis itself, while the category definitions should be included in its appendix. It is usually also a good idea to document examples of the raw data—such as some of the transcribed interviews—in the appendix. The way to do this is described at the beginning of this chapter.

There has been a debate for many years over whether it also makes sense for qualitative data to be archived for secondary analyses and made available to further researchers (Corti, Witzel, & Bishop, 2005; Medjedović, 2011). In the UK, a special data archive at the University of Essex called ESDS Qualidata, which is part of the UK Data Service, has been in place for some time. However, if you want to make your own data available to such archives, you should check in detail whether the data you can provide is suitable for archiving purposes, and whether this transfer of data is covered by the consent you obtained from your research participants, which you usually would have done at the beginning of the data collection process. This may be particularly difficult in the case of video data, which cannot easily be rendered anonymous.

References

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