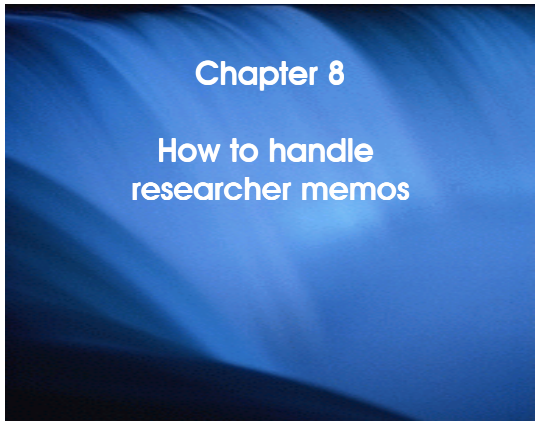


8.1 What are memos good for?

All notes, references, cross references, ideas, tentative hypotheses, contradictions, etc., that you do not want to forget during the processes of data collection, data reduction or drawing of conclusions can be typed directly into the program. We want to recommend that you use the memo function in AQUAD extensively! Because memos are so important in processes of permanent comparison within and across texts in theory-constructing analyses, the program offers a variety of retrieval options. Thus you can construct very easily queries that support you in bringing your memos later again in contact with those texts, segments, codes, etc., which caused you to take a note.

We agree with Miles and Huberman (1994, p. 72) that collecting and analyzing texts particularly from field observations is so exciting, that coding is so strenuous that the probability is high of getting lost in the midst of highly interesting details – "... the poignant remark, the appealing personality of a key informant, the telling picture on the hallway bulletin board, the gossip after a key meeting. You find it nearly impossible to step back, to make deeper and more conceptually coherent sense of what is happening." Therefore it is indispensable to note everything that comes to your mind during an interview, during your observations, talks, etc., as well as later when you are occupied with coding and reflecting about central categories and their possible links.

Some years ago Glaser (see Glaser, 1992, pp. 108 ff.) and Strauss (see Strauss & Corbin, 1990, pp. 197 ff.) started a debate on the importance of memos in the process of qualitative analysis. The authors agree that memos should accompany the process of research from the very beginning to the final report. Memoing should not be abandoned in any of the phases of a study, because memos always are very important for reflections about the data. Neglecting memos will often becomes obvious from characteristics of the final product of a project: "A theory whose concepts lack density and/or are only loosely related." (Strauss & Corbin, 1990, p. 199)

However, Straus and Corbin try to "canonize" the process of memoing and its spontaneous, creative, maybe sometimes overwhelmingly speculative products; they distinguish between memos, code notes, theoretical notes, operational notes, diagrams, and logic diagrams – and they introduce specialized procedures for handling these different types of researcher memos. As regards these rules, we recommend pondering Glaser's objection (1992, p. 109) that it is impossible to develop a general system of characteristics in advance; such characteristics have to be observed for particular reasons during the process of "grounding" an emerging theory before they are found to emerge from the data. On the other hand, systems of critical characteristics may have important heuristic functions (cf. Huber, 1992, pp. 145 ff), but they never should serve as a complete description or as a blueprint that would enforce or guarantee a particular theoretical construction. Or formulated in other words: From the point of view of generating a "grounded theory" it is an ideal approach, if "... the analyst starts with no idea of an outline and thereby lets the concepts outline themselves through emergence." (Glaser, 1992, p. 110) However, how to cope with a situation when nothing seems to emerge? Some hints where to focus the attention or how to look at a text, a video, etc. from a different angle could be helpful in this situation.

Let us summarize and draw a conlusion: Take memos, write down all your ideas during all phases of qualitative analysis. Do not try to obey the rules of a rigid system of notation that was developed independently of your texts when memoing.

8.2 How to write memos within AQUAD

AQUAD offers two ways of access to its memo functions, depending on the module you are working with:

- There is a "Memos" option in the main menu, and
- you find a "Memo" column on the left margin of the code table in all windows in which you will do your coding.

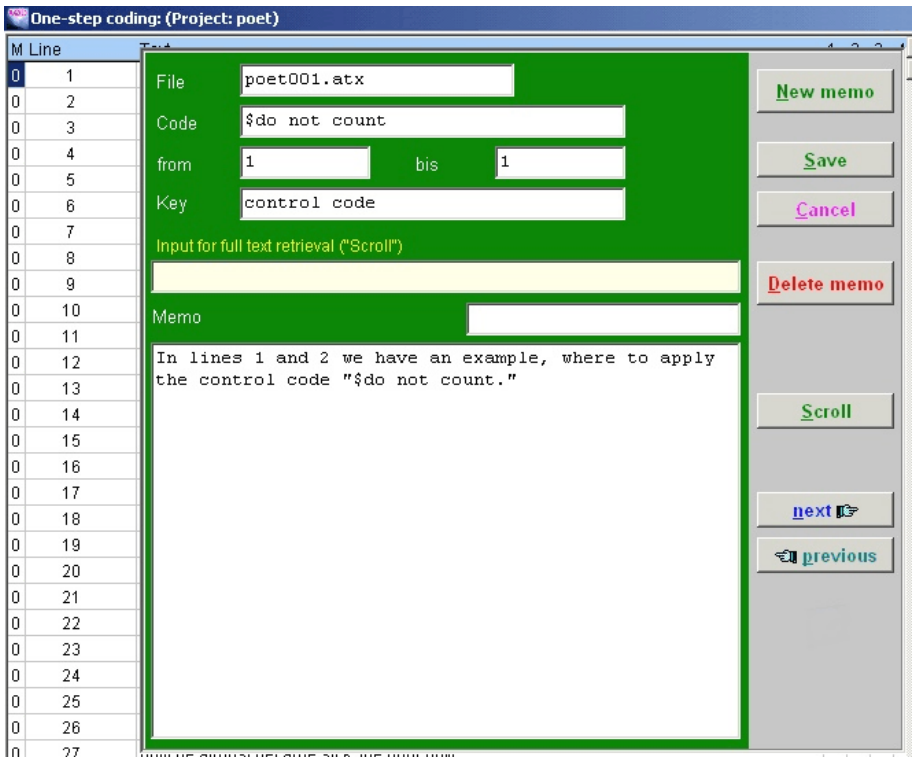
Mostly you will want to note an idea during the process of coding. Let us study memoing during coding first.

8.2.1 Memoing during coding

During one-step or two-step coding of text files or during analyzing pictures, audio- or video-recordings you add codes to your data files. While doing so, you may activate the memo-function whenever you need it by clicking either in the memo column ("M") on the left side of the window or on the "*Memo*" option in the main menue.

In those rows of the code table to which no memo was attached until now, you will find in the "M"-column a "0,, the numbers in other rows may show that here are already attached one or more memos. Clicking on any cell in this column opens the memo window with the first of potentially many memos attached to the data segment specified in this row of the code table. Clicking on a "0" cell in the "M" column opens an empty window for memo input.

- Click on the button "*New memo*" and you are ready to write a new memo.
- Do not forget to "*Save*" it after you are finished with your entries.



Several entries are already visible in this box: the name of the data file to which this memo will be connected ("poet001.atx"), the number of the line (row "1"), where you clicked into a cell of the "M" column, and a keyword for later retrieval ("control code") of your memo. You may change each of these entries. According to the logic of memoing during coding, the line or counter numbers (as margins of a data segment) can be changed during one-step coding of texts only by clicking on another cell (first line) in the "M" column and moving the cursor down to an appropriate second cell (last line) before you release the mouse button again. During two-step coding of texts and coding other types of data (audios, videos, pictures) you change the line numbers only by attaching your memo to another of the already entered codings. More degrees of freedom are available within the "*Memo*" option in the main menu.

An additional key-word may be entered by typing it. On the other hand, you get easy access to the list of text files and (master) codes in your project by double-clicking on the empty entry fields. Two additional boxes will pop up, from which you select the appropriate items by clicking on them. However, normally you would not wish to change the number of the text file, to which your memo is related, but in case ... To close these boxes again, you just double-click on them.

All of these entries are optional, that is, you do not have to fill in these fields – however, you may really miss some markers if you want to retrieve a particular memo later. But there is additionally the possibility to search for memos using words from the memo text, characteristic words you remember to have used when you formulated a memo.

What about the text of a memo? You see a relatively small window for text entry below, however, the real length of your memos is practically unlimited. You may, for instance, copy a complete text file into the memo box – if this should make any sense. In other words, there are no restrictions for writing memos. Copying text passages (from within "*One-step coding*") and copying parts of text from or to other memos is achieved by clicking into the text with the *right* mouse button.

The functions "Copy", "Cut", and "Paste" , which are available from a small pup-up window, should be familiar from other WINDOWS based software. If you need further explanations, please open the general help option from the main menu and look for the key words (second button in the top row) "retrieve", "copying", "cutting", "pasting" or "clipboard".

As you are looking on the small pop-up window: For sure, you notice the option to print your memos, maybe after determining a particular lay-out for the print-out.

8.2.2 Memoing started from the main menu

Probably you have already drawn the conclusion from the descriptions in section 8.2.1 that the option "*Memos*" in the main menu gives you access to memoing functions whenever you need them – not just during coding. All explications in section 8.2.1 are valid also during all other phases of analysis, there is no principal difference. The only little difference is that no entry window is already filled in, because in this case AQUAD cannot guess to what data file and data segment you are going to relate your memo.

8.3 How to retrieve memos

This question kept us quite busy during programming AQUAD. Especially some spontaneous ideas, which should be kept in a memo, will come to your mind later in some other connection. You will remember, that this idea seemed to be extremely valuable in this or that text, for applying this or that code – however, what was it exactly?

If you remembered these details, you would have immediate access to the memo. Of course, you can read your memos one after the other – this can be done in AQUAD, too. However, some support for queries will be most helpful in this situation. When you start a query for your memos, all entries visible in the memo window will serve as criteria for retrieval. The criteria are used as connected logically by an "AND", that is, the query will succeed only, if all of them are true in any of your memos. Therefore, the more criteria (file name, line numbers, code, key word) you enter, the more strictly will AQUAD scan your memos.

However, there are differences as regards criteria and logic of retrieval, which you should keep in mind. The retrieval logic varies depending on the module from which the retrieval is started:

8.3.1 Retrieving memos during coding

While you are occupied with coding a particular data file, a remarkable part of your work will consist of "permanent comparisons" (Glaser and Strauss, 1967). Whenever you are going to determine a data segment as a significant unit of meaning for which a particular code seems to be appropriate, another instance in your data files may come to your mind, which seems to be very similar or quite different. How did you code this segment – and why? So you will go back to this segment and scrutinize the code(s) attached to it. Or you remember that you used a particular code already in a similar situation. Memos preserving your considerations at the time when you coded this segment or when you applied the specific code would be very valuable now! Look for the data segment or the location where the critical code was applied (see chap. 6), click into the corresponding cell in the "M" column and read the memos related to this data segment and/or code.

Finding "*Next*" and "*Previous*" memos

The buttons "*Next*" and "*Previous*" will cause what their labels are announcing: Clicking on one of these buttons opens the memo next or previous to the one you are just reading on the screen. However, this function is limited to memos attached to the line you activated by clicking into its cell in the "M" column.

The contents displayed in the profile fields of each of the memos shown – name of the data text, code, line numbers, and perhaps an additional key word (see section 8.2.1) – do *not* serve as criteria of retrieval here, but they inform you where each of the memos belongs to.

"*Browse*" through your memos

The option "*Browse*" needs some more explanation. If you want to retrieve memos during the process of coding which were attached to other data files than the one you are occupied with at the moment, use this button! However, here a criterion is necessary to determine the retrieval process. Again, the contents displayed in the profile fields of the memos (see last paragraph above) do not serve as criteria, but give information only. Instead, you enter some critical content (a single word, part of a word or a sequence of words) of the memos you want to find in the yellow entry slot labeled "Keyword/s (for retrieval only!)." There will be no differentiation between upper and lower case writing!

Then click on the button "*Browse*" and you will get all memos, which contain the criterion. If you want to copy, save or print them, just click on the right mouse button (with the cursor inside the text display) and continue according to AQUAD's suggestions.

8.3.2 Retrieving memos from the main menu

If you activate the "*Memos*" option in the main menu, you have immediate access to all memos connected with your actual project. As regards criteria of retrieval, there are some rules:

- The contents of the profile fields (name of the data text, code, line numbers, and perhaps an additional keyword) override keywords (part of the memo's content) entered into the yellow entry slot.

- Contents of the profile fields as criteria are logically linked by "AND", that is, you will retrieve a memo only if all the criteria entered are true for a particular memo. Remember: The more criteria (name of the data text, code, line numbers, and perhaps an additional keyword) you enter, the more strict will be the search for memos.

- Content keys, that is text entered into the yellow entry slot for full text retrieval, will serve as criterion only if the profile fields are empty (follows from point 1).

- Content keys are not differentiated in terms of upper case or lower case letters.

Click on the button "*Browse*" after entering the criterion and you will get all memos, which contain the criterion. If you want to copy, save or print them, just click on the right mouse button (with the cursor inside the text display) and continue according to AQUAD's suggestions.

Clicking on the buttons "*Next*" and "*Previous*" will display the first instance of memos for which the criterion is valid, and then the next or the previous memo for which the criterion is valid – if there are more memos of this kind.