Working with Paraphrases and Summaries, Creating Case Overviews

11

One of the primary aims of the analysis process is to summarize and compress the data. This chapter will focus on two strategies for achieving this: firstly, paraphrasing sections of data and using the resulting paraphrases to develop categories and, secondly, the development of thematic summaries based on previous code assignments. The former is primarily used to form categories, the latter for descriptive analyses of previously categorized data. By coding and working on the category system, the empirical data is made accessible in a way that generates a conceptual classification system with a network of connections. Classification systems and taxonomies have a value in and of themselves. Think of the periodic table of elements in chemistry, for example, they contain highly concentrated information and allow you to classify elements and identify phenomena. Category systems in empirical social research do a similar job. If you imagine these systems as a grid with nodes that each contain a collection of all the information on a particular topic, then you may also face the problem that the volume of this information could be overwhelming. To bridge this vast gap between a category and the data coded with it, it often makes sense to work with summaries, i.e., to create a second grid that compresses and summarizes the information with the research question(s) in mind. This chapter focuses on the basic idea of a "summary grid" of this kind, as well as the presentation of summaries in "summary tables."

In This Chapter
- Compiling, editing, and categorizing paraphrases
- Writing thematic summaries
- Exploring the uses of the Summary Grid
- Creating case overviews using Summary Tables
- Create document variables from Summary Tables
- Preparing Summary Tables for publications and posters

Writing and Categorizing Paraphrases

The two summarizing strategies discussed in this chapter—working with paraphrases and creating thematic summaries—have different prerequisites. The first strategy is relatively free of prerequisites and does not demand that the data has been coded in advance, while the thematic summary strategy that involves working with the Summary Grid is based on a prior coding of the material. When is either of these procedures more appropriate? It is difficult to provide a universal answer. If you are pressed for time and forming a category system and coding the data is out of the question, it is best to use paraphrases as a means of summarizing the data. On the other hand, it cannot be said for all cases in which categories have been formed and the data has been coded that the Summary Grid is always the best option. This is certainly often the case, but paraphrasing can also serve as a form of inductive category building. Detailed descriptions of how this is done in practice can be found in Mayring (2014), Kuckartz (2014), and Schreier (2012).

Paraphrasing texts is an effective way of summarizing their content, especially when there is no time to code this material or you need to produce a condensed version of the text at short notice, as is often the case in journalism, for example. We have described how texts can be paraphrased in MAXQDA in Chap. 5, "Exploring Data," which also covers further options for working with paraphrases.

Compiling All the Paraphrases Assigned to a Document

Assuming that everything considered important from a certain perspective has been paraphrased, these paraphrases should, in sum, contain the "substance" of a text. There are several ways in which you can review this substance, that is, compile all the paraphrases and read them at once. First, you can use the Overview of Coded Segments. To access this, right-click on the relevant text in the "Document System," and select **Coded Segments** in the **Overviews** section. If text passages have already been coded in this text, you must additionally activate the code "Paraphrases," and click on the **Only activated codes** icon in the overview window. Of the large amount of information that can be displayed in the columns of the Overview of Coded Segments, only three columns are required: first, the column "Begin," and if necessary also the column "End," to sort the order of the paraphrases according to their order in the text itself; second, the column "Comment," since the paraphrases are stored in this column in MAXQDA; and, third, the "Preview" column, in which the text that has been paraphrased is listed. You can right-click on the header row, i.e., the row in which the column names are located, to hide the columns that are not required. Figure 11.1 shows the corresponding result for a newspaper article. The paraphrases are listed in the "Comments" column in the lower window, while the original text that has been paraphrased is displayed in the upper window. From here, all the options provided for MAXQDA's overview tables are available to you. For example, you can search for certain words within the paraphrases and filter them thematically. The word "migration" was searched for in Fig. 11.1 and found in two paraphrases.
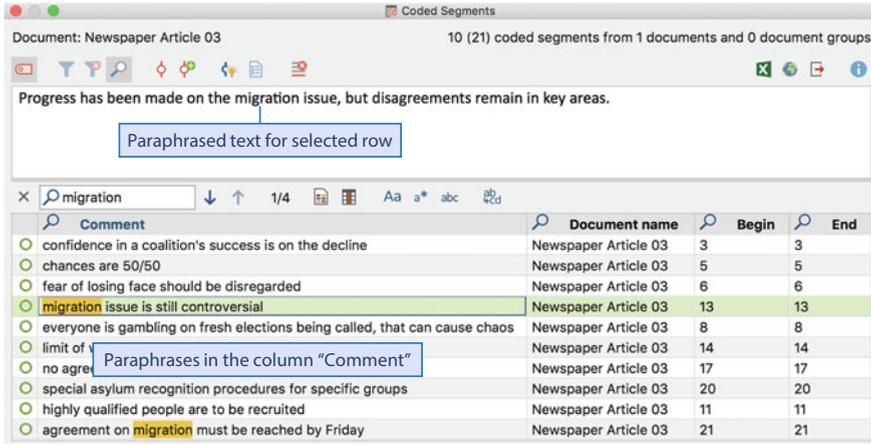
Fig. 11.1 Compiling paraphrases in the Overview of Coded Segments

Analyzing and Summarizing Paraphrases

Having compiled this set of paraphrases, you can then go through them a second time. Redundant or even contradictory paraphrases can be found via the versatile options for filtering overview tables. To filter paraphrases thematically, right-click on the column heading "Comment," and define the appropriate filter, for example, all paraphrases containing the word "migration." Only these paraphrases will then remain visible, and you can edit them as required. Following the technique of summarizing as described by Mayring (2014), this second phase (S2)—once you have finished paraphrasing the material—is about generalizing paraphrases to the required level of abstraction for which Mayring sets out the following rules (Mayring, 2014, p. 68):

S2.1 Generalize the referents of the paraphrases to the defined level of abstraction, so that the old referents are implied in the newly formulated ones.
S2.2 Generalize the sentence kernels (predicates) in the same way.
S2.3 Leave those paraphrases standing which are above the intended level of abstraction.
S2.4 In cases of doubt make use of theoretical preconceptions.

You can follow this procedure in the Overview of Coded Segments as shown in Fig. 11.1: once you have double-clicked on a paraphrase, you can edit it and—if necessary—generalize it. Alternatively, this generalization step can also be carried out with the *Categorize Paraphrases* function, as described below.

In the third phase of Mayring's technique of summarizing ("S3: First reduction"), the paraphrases are condensed according to the following rules (Mayring, 2014, p. 68):

S3.1 Cut semantically identical paraphrases within units of evaluation.
S3.2 Cut paraphrases which are not felt to add substantially to the content on the new level of abstraction.

S3.3 Adopt the paraphrases which continue to be thought of as vitally content-bearing (selection).

S3.4 Resolve cases of doubt with the aid of theoretical preconceptions.

This procedure can also be carried out using both the Overview of Coded Segments and the **Categorize Paraphrases** function. If this technique of summarizing is used to form categories inductively, it is not necessary to delete any paraphrases, because the aim here is a consistent category system, not the coding of the data. Aside from this, one should also be aware that deleting paraphrases deletes the link to the original material, i.e., it will no longer necessarily be apparent that the content captured in a generalized paraphrase occurs several times throughout the material.

The fourth phase of Mayring's technique of summarizing, the so-called second reduction, can be implemented in the same way. In this phase, the aim is to bundle and integrate paraphrases not only on a case-by-case basis but across several cases and to delete redundant paraphrases if necessary. For this step, you must first activate all documents in MAXQDA the paraphrases of which you want to process in this way. Then double-click on the "Paraphrases" code, and filter the display by clicking on the **Only activated documents** icon. From here, the procedure mirrors that of the "first reduction," i.e., you can use either the Overview of Coded Segments or the "Categorize paraphrases" function. Again, the step of deleting paraphrases needs to be thought through carefully in advance; especially when it comes to summarizing the contents of your data, the deletion of paraphrases should be treated with caution.

In order to keep track of and comment on your summarized paraphrases as well as your categories, it is best to create a new free (unassigned) memo in which their contents—in the above example on the subject of "migration"—can be summarized. All edited paraphrases are accessible in the Overview of Coded Segments such that particularly significant paraphrases can be transferred to the free memo as quotations via the clipboard.

From Paraphrases to Categories

The systematization and grouping of paraphrases is a proven method for arriving at categories. This inductive, data-based category formation through paraphrasing can admittedly be quite time-consuming. However, especially for newcomers to the field of qualitative content analysis, this is a path that can be taken without major difficulties, because here you are always working very closely with the original text. The MAXQDA function "Categorize Paraphrases" not only supports the creation of categories but can also be used in general to categorize paraphrases in the context of qualitative content analyses. You can find this function in the **Analysis** ribbon tab via **Paraphrases > Categorize Paraphrases**. If you only want to work with one or a certain number of selected documents, you must activate them beforehand. Figure 11.2 illustrates what the window for categorizing paraphrases looks like.

The "Categorize Paraphrases" window is divided into two areas. In the left area, you will see the category system; at the beginning of the category formation process,
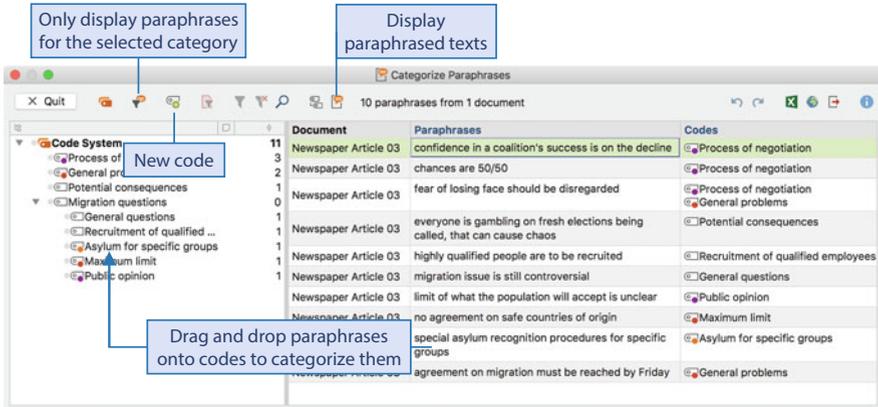
Fig. 11.2 Creating categories from paraphrases in the "Categorize Paraphrases" window

it will still be empty, of course, provided that the activated documents have not yet been assigned any codes. New categories can now be inserted and assigned to individual paraphrases. The number at the end of each line of code indicates how often the category has been so far assigned in the selected documents. Unlike the code frequency in the "Code System," this number does not indicate the total number of assignments of this code throughout all your documents but only the number of codes in the documents you have activated for the paraphrase categorization process. In the right window area, the paraphrases contained in all or only the activated documents are listed—each in a separate row. By default, three columns are displayed in the right window: the first column contains the document name, the second the paraphrases, and the third the assigned codes. A fourth column "Paraphrased text" can be added via a corresponding icon in the toolbar, which in turn contains the original text that has been paraphrased.

Like all MAXQDA tables, the table can be adapted: you can change the width and position of the columns with the mouse and hide them by right-clicking on them. Clicking on the header sorts the column in ascending order, another click in descending order.

▶   **Please Note** While the window for categorizing paraphrases is open, the other functions of MAXQDA are locked. When this window is closed, all changes made to the code system, including the addition of new codes, are adopted directly in MAXQDA's "Code System."

Assigning Categories
To assign a new category to a paraphrase, right-click on it and select the option *Create and Assign New Code* in the context menu. To assign an existing code to a paraphrase, simply drag the row containing the paraphrase onto this code in the code system. This new categorization is indicated immediately, as the code will then appear in the "Codes" column. To remove a category from a paraphrase, hover your cursor over the code in the "Codes" column and click on the "x" that appears. To

create a new code for categorization, click on the *New code* icon in the toolbar and enter your desired code name in the usual dialog box. You can also assign a color to the code and enter a description for it in the "Code Memo" text field.

You can reorganize your category system while working with paraphrases: the order of the codes can be changed with the mouse and parent/subcode relationships can be adjusted. When you right-click on a code, many of the familiar functions from MAXQDA's main "Code System" window are also available here for adapting the code system, i.e., you can delete codes and change their color or create a code memo.

The current display, that is, all the paraphrases in the right area of the window, can also be opened or exported as an Excel or HTML table. An overview of this kind can be useful for documenting the content behind a particular category or subcategory.

Summary Grid: Writing Thematic Summaries Based on Coded Segments

Anyone who analyses texts will often decide to distinguish important from unimportant information and summarize what is important from the perspective of the research question at hand. These summaries therefore capture something that is considered significant from a specific point of view. On the other hand, this also means that there is no universal way of composing summaries; what a summary looks like will depend on the situation and its purpose within the analysis process. Hence, summaries can vary greatly in terms of their length. The keywords that help you to find relevant texts while conducting literature research are very succinct. These keywords compress the information contained in a text into a few terms. Abstracts, on the other hand, are more detailed in this respect and can summarize the key content and arguments of an article in a scientific journal, for example, in a few sentences. Both keywords and abstracts refer to the entire text or, to use social research terminology, to the entire unit of analysis. In MAXQDA, keywords can be assigned to a unit of analysis (= document) in the form of codes. Abstracts that summarize an entire text are best assigned to the respective document in the form of a document memo in the "Document System." A very detailed and concise technique of summarizing is the technique of paraphrasing we have already described, which serves to render individual statements or sections of a text in the researcher's own words. This can result in a large number of paraphrases—depending on the research question—which can then be ordered and further summarized at a higher level of abstraction.

Paraphrasing is a technique that has no prerequisites, that is, a prior thematic coding of the material is not necessary. Instead, uncoded text sections are reproduced in the analyst's words in a condensed form. Another summarizing method in the context of content analyses works with already coded text passages. MAXQDA offers a special function for this purpose, namely, the Summary Grid. The basic idea of the Summary Grid is that it allows you to write thematic summaries, building on an already existing thematic coding of the data. The principle of thematic summaries is illustrated in Fig. 11.3. For each case, a specific topic, i.e., the segments coded with a specific category, is brought into focus. For example, what did the person
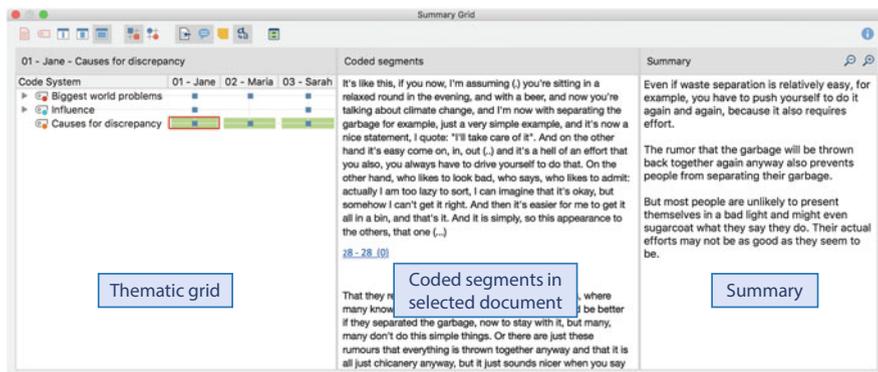
	Case 1	Case 2	...
Topic A	*All coded text segments* from Case 1 on Topic A	*All coded text segments* from Case 2 on Topic A	
Topic B	*All coded text segments* from Case 1 on Topic B	*All coded text segments* from Case 2 on Topic B	
...	...	...	...

⇓ ⇓

	Case 1	Case 2	...
Topic A	*Summary* of text segments from Case 1 on Topic A	*Summary* of text segments from Case 2 on Topic A	
Topic B	*Summary* of text segments from Case 1 on Topic B	*Summary* of text segments from Case 2 on Topic B	
...	...	...	...

Fig. 11.3 The principle of the Summary Grid (summaries for cases x topics) as an additional level of analysis

"Peter Berkemper" say about the topic, "Confronting Global Challenges," during the course of an interview? It may be that he mentioned this topic at ten different points throughout the interview. With the help of MAXQDA's Summary Grid function, you can compile all these places in the interview and then write a thematic summary for all of them combined.

These thematic summaries can in turn be used for further analyses, in particular for systematic case comparisons, case contrasts, and case overviews. Case-oriented approaches of this nature are typical techniques in qualitative social research. You can perform analyses like this using MAXQDA's Summary Tables; these are based on the coded segments and corresponding summaries as they have been formulated by the respective researchers.

Writing summaries can take a long time. You should therefore think carefully about which topics (codes) are actually worth summarizing. There is certainly no imperative to create summaries for every topic.

To create and edit summaries, go to **Analysis > Summary Grid**. The Summary Grid window (Fig. 11.4) has three areas:

- In the left column, the thematic grid is displayed in a format similar to the "Code Matrix Browser," a visual tool of MAXQDA. A blue square indicates the presence of some coded segments in that document for that code. A green shading around it indicates that a summary of those segments has been created already. A red rectangle indicates for which document and which code in the thematic grid the coded segments are currently being displayed.
- The middle column displays the full content of these coded segments.
- The right column, which is initially empty, is where you can write your summary.

The columns and rows of the thematic grid shown in the left column can be reduced using two icons. The **Only activated documents** icon ⬤ ensures that only

Fig. 11.4 The three columns of the Summary Grid window

those documents you have activated in the "Document System" are displayed as grid columns. The ***Only activated codes*** icon ▬ has a similar effect—only codes activated in the "Code System" are displayed as grid rows. Furthermore, the ***Summary Tables*** icon ▣ opens the Summary Tables window described below.

So how do you write a summary or edit an already existing summary? If you hover your cursor over the nodes of the Summary Grid in the left window, a tooltip will appear with information about the document and the number of segments in the document that have been assigned this code. Clicking on a cell in the matrix selects it for editing. In fact, this is almost like opening a drawer and revealing its contents; in this case you will now see the corresponding coded segments in the middle window. At the end of each segment, there is a reference to the source (the paragraph number of the segment highlighted in blue). Clicking on this source reference will display the corresponding section within the document in the "Document Browser," so that you can see the segment in its original context—which can be of help when interpreting the segment.

You can now enter a summary in the right window. Summaries are automatically saved when another node is clicked in the left window or when you close the Summary Grid window.

▶   **Tip**   Selected text passages can be dragged and dropped from the middle
        window into the summary window by holding down the left mouse
        button. This makes it easy to insert original quotes into a summary.

Summary Tables: Creating Case Overviews

The Summary Tables function is used to contrast cases and create case overviews. It can be accessed either via ***Analysis > Summary Tables*** or by clicking on the icon of the same name ▣ in the Summary Grid window. In a Summary Table, the associated

Fig. 11.5 Options for creating a new Summary Table
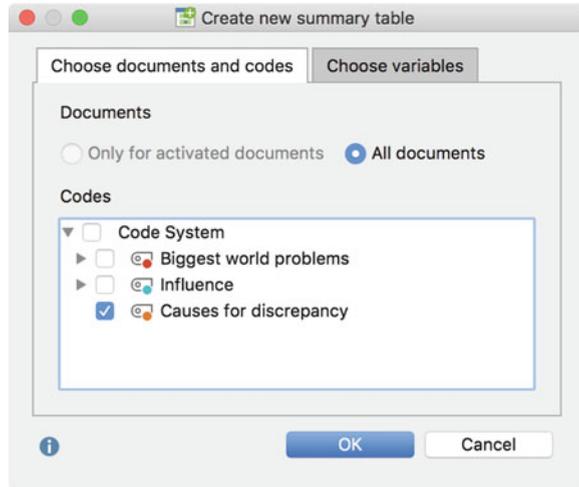
summaries for selected documents and codes are displayed together with document variables. Summary Tables are ideal for presentations and publications.

In Fig. 11.6 you can see the Summary Tables window: on the left side, there is a list of all Summary Tables created so far, and on the right side, there is a table window in which the Summary Table is displayed according to your chosen settings. Of course, this list will be empty if no Summary Table has been created yet. Click on the icon of the same name 🔲 to create a new table; next, you need to choose from various options (Fig. 11.5):

- Select whether all or only activated documents are to be included. This defines the rows of the Summary Table.
- Select which codes to include. This defines the columns of the Summary Table.
- Select which document variables are to be included as additional information. The variables selected for the "Variable for first column" window area will be displayed in the first column together with the document name. All variables selected in the "Variables in own column" window area will be added as separate columns behind the codes.

Once you have configured these settings, the finished table will appear, listing the summaries for the selected codes (Fig. 11.6). The first column will contain the document group and the document name as well as the values of the selected variables. This way, additional information about the case in question can be displayed in the Summary Table. The table is created in a uniform, plain text format with the same font throughout.

▶   **Please Note** The individual cells in MAXQDA's Summary Table can be
        edited. The displayed summaries can be changed, and all changes made

Fig. 11.6 MAXQDA's Summary Table window

> to their contents are, in turn, applied to the summaries in the Summary
> Grid, i.e., the contents of the corresponding cells here are also changed.
> The values of the variables, which are displayed in their own columns,
> can also be changed, but this has no effect on the document variables
> themselves.

The cells displayed in the Summary Table are linked to their corresponding coded segments. Clicking on a cell displays the coded segments associated with that cell in the Summary Grid window. If you right-click within a cell, a context menu will appear, which includes the option ***Display associated coded segments***; these are then displayed in the "Retrieved Segments" window.

As with all tables in MAXQDA, you can adjust the display of your Summary Tables. For example, you can change the order of the columns by dragging and dropping the column to the desired position. You can also hide columns and sort the entire table in ascending or descending order according to the values in a column.

Creating Document Variables From a Summary Table

From these already highly condensed summaries, you can automatically generate document variables. Take the following example: in preparation for a workshop, the participants were asked in an online survey whether they had any previous

Fig. 11.7 A Summary Table with assessments for the codes "QCA Experience" and "MAXQDA Experience"

experience with the "qualitative content analysis" method. One of the responses states, "I analyzed guided interviews with the method of qualitative content analysis as part of my bachelor's and master's theses." This person seems to have had quite a lot of experience working with this method. Now you want to evaluate the answers on the scale "QCA Experience" with the possible results of "yes," "some," and "none." In this case, the experience gained during the participant's BA and MA studies results in the assessment "yes," which is entered as a summary for the person. The survey asks a similar question about previous experience with MAXQDA. Rather conveniently, the same options can also be chosen here, namely, "yes," "some," and "none."

All the documents are processed in this way and the appropriate value is entered in the respective summary column. The resulting Summary Table can be seen in Fig. 11.7. The first column of the table contains the names of the documents—variables were not selected here. The second column contains the assigned values for the question about each participant's previous experience with qualitative content analysis, and the third column contains the assigned values for the question about their previous experience with MAXQDA.

At first glance, you might already be able to detect some interrelationships: barring one exception, all those who have experience with qualitative content analysis also have experience in working with MAXQDA. Very often there is a coincidence of two "none" answers, i.e., the participant has no experience in either area. Clicking on the header line of a column causes the table to be sorted according to this column. This makes it easy to find out that five people have experience with qualitative content analysis, five have no experience, and two people have some

experience. If you right-click on the "QCA Experience" column header, you will see the ***Transform into Document Variable*** option in the context menu. This creates a new variable called "QCA Experience" and adds the corresponding value (either yes, some, or none) to each document. From now on, this variable can be used as a selection criterion, for example, to answer the question "What do participants who have no experience with qualitative content analysis want to learn?" Of course, the variables formed in this way can also be statistically analyzed, for example, in the form of a frequency table or bar chart.

▶   **Please Note** The variable values displayed in the Summary Table window are static, i.e., changes made here will not be permanently stored in the database. To change these values permanently, use the Data Editor for Document Variables (see Chap. 10).

Alternative Display of Case Overviews

For some questions and comparisons, especially when contrasting selected cases, it makes sense to swap the arrangement of rows and columns so that the cases (documents) appear in the columns and the topics (codes) appear in the rows. You can do this by clicking on the icon of the same name in the toolbar at the top of the window. The best way to select cases to compare is to use the "Select columns" option, which you can access by right-clicking any column header. In Fig. 11.8 four cases are being compared, two with "QCA experience" and two with none; the participants "01" and "04" have experience with the qualitative content analysis method, and "08" and "09" have no experience. In addition to the codes that cover the level of experience, the summaries on the topic, "What do you want to learn in the workshop?", are also listed in the table. The two people with no experience are particularly interested in the topic of "category formation," while the two experienced participants have more specific learning goals and even want to work with their own data.

		01	04	08	09
1	Documents and variables	01	04	08	09
2	QCA Experience	yes	yes	no	no
3	MAXQDA Experience	yes	no	no	no
4	What do you want to learn?	How exactly can I create and edit excerpts in MAXQDA?	I would like to deepen my understanding of qualitative content analysis. It would be nice if we could practice this using our own data.	How do I create categories?	I'm particularly interested in how to form categories (category types, the category system) and structural content analysis (the procedure to begin with).

Fig. 11.8 Summary Table for four selected people in the columns

Creating Integrative Summaries

It is often the case that summaries relate several topics that need to be integrated, that is, combined to form an overall assessment. This is the case, for example, if you want to develop classification types (a typology) based on several codes or their summaries. As a simple example, take the summaries above for "QCA Experience" and "MAXQDA Experience." The aim is to integrate these two topics (= columns in Fig. 11.9) into a "Type of previous experience." How do you do this? It would actually be helpful to be able to add another column to the Summary Table and write this integrative summary there, for example, the combination "yes" + "yes" would be assigned to the type "Experienced" and the combination "none" + "none" to the type "Beginners." However, no further columns can be inserted into a MAXQDA Summary Table. Even if this were possible, you would face the question of where these newly generated values would be stored. If they were only added to this Summary Table, they would be lost for all subsequent analyses. So, you need to use the tools MAXQDA provides for such analyses—and these tools are the codes and variables. Since the changes made to variable values in Summary Tables are not permanently stored in the corresponding document variables, the only available option is to use codes. This means that you need to define a new code "Type of previous experience," recreate the Summary Table to include this code, and then—in the table's "Type of Previous Experience" column—enter the type which should be assigned to each respective person. Figure 11.9 illustrates the result: three groups were formed, namely, "Experienced," "Beginners," and a mixed group of people who already have some previous experience; for these participants, the type "Some Experience" was entered. In this way, the "Type of previous experience" remains permanently stored, is available for further analyses, and can be statistically analyzed—and, last but not least, it is also available in the summary overviews.

	Documents and variables	QCA Experience	MAXQDA Experience	Type of previous experience
1	01	yes	yes	Experienced
2	02	some	yes	some experience
3	03	no	some	some experience
4	04	yes	no	some experience
5	05	no	no	Beginner
6	06	no	no	Beginner
7	07	yes	yes	Experienced
8	08	no	no	Beginner
9	09	no	no	Beginner
10	10	yes	yes	Experienced

Fig. 11.9 Creating an integrative summary in an additional column

The Overview of Summaries

In the "Document System," you can access a *case-related* overview of the summaries you have written by opening the Overview of Summaries. In this context, case-related means that you can see the summaries of selected documents, document groups, or document sets. This overview is available at all levels of your "Document System" via the context menu. In this menu, you will find the entry **Summaries** in the bottom row of the **Overviews** section. You can also access this overview via the **Overview of Summaries** option in the **Reports** ribbon tab.

In this overview you will see a table list, similar to many in MAXQDA, that contains all existing summaries of the respective document in the lower window area and displays any summary you select in full in the upper window area.

The columns "Document" and "Code" indicate the source of these summaries, the "Preview" contains the first 63 characters of the summary, and the column "Locations" lists all locations in the document from which the underlying coded segments originate. Selected in Fig. 11.10 is the first summary from the document "B01 Jane"; here, all text passages assigned with the code "Causes for the discrepancy" were summarized. Two text passages in the document were assigned with this code, namely, paragraphs 28 and 30.

At the end of this chapter on summaries, it is worth turning to the question of standards and quality criteria. Are there rules for writing a summary, for example? And can you assume that several people will agree on how a given summary should be formulated?

First, as regards the question of rules, it is difficult to define universal guidelines for writing summaries. However, a research team may decide together how best to write summaries for the purposes of their project, what information their summaries should contain, and how comprehensive they should be. Measured against these criteria, which should be set down in writing, you can then judge the quality of a summary.

As far as the agreement of two summaries written by different researchers is concerned, the first question to be asked is what exactly is meant by "agreement." A literal match is impossible. However, you should be able to expect a summary to

Fig. 11.10 The Overview of Summaries

contain important, valuable information from the perspective of the research question(s) at hand. This should be practiced by the research group until—true to the principle of intersubjectivity—sufficient agreement in view of this goal has been reached.

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