Imagine converting the results of a large online survey into a Hermeneutic Unit in ATLAS.ti with just a few mouse clicks?

A typical work flow now looks like this:
1. Create an online survey using Google Docs (a very convenient option, though other frameworks are available)
2. Download and store the survey as an Excel table
3. Import the table into ATLAS.ti
4. Voilà: Each row (= one respondent) becomes a primary document, and content is collected and created from the answers to open-ended questions. PD families are created from single and multiple-choice questions; quotations are created for each answer and coded with the respective question (you may use abbreviations). This accomplishes a lot of tedious pre-coding in a few seconds.
5. Now you can get started with what really matters: Your analysis!

How Survey Data Is Treated In ATLAS.ti

There are different ways of transferring the results of a survey into an analysis software. The most sophisticated read and interpret a survey’s definition and use this specification to import the bulk of the survey data. However, for now we take a less complex approach which does also work with simpler survey tools, or, even simpler, with *any Excel table* that contains meaningful data.

To represent the results of an online survey within the framework of ATLAS.ti in the most accurate and complete manner, a few basic requirements need to be considered.

A survey broadly consists of
• the name of the survey
• the questions
• the answers for each respondent

Questions can be of different type:
• single choice between two (yes/no) or more options
• multiple choice
• open ended
Concept Mapping

Within the framework of ATLAS.ti these concepts are mapped as follows:

<table>
<thead>
<tr>
<th>Survey Concept</th>
<th>ATLAS.ti Concept</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open-ended question:</td>
<td></td>
</tr>
<tr>
<td>question</td>
<td>Code (and code comment)</td>
</tr>
<tr>
<td>answer</td>
<td>Content of a quotation</td>
</tr>
<tr>
<td>Single Choice 0/1</td>
<td>PD Family</td>
</tr>
<tr>
<td>Single Choice &gt; 2 options</td>
<td>PD Family from Question plus Value</td>
</tr>
<tr>
<td>Multiple Choice</td>
<td>PD Families from Question plus Value</td>
</tr>
</tbody>
</table>

Each row of the Excel™ table that is imported from the online survey tool is transformed into a primary document.

Depending on the type of field, codes, quotations, author, comment, families are created. The first row is reserved for the field names containing the questions enhanced by the type prefixes listed below.

If you import the same table repeatedly, rows with already existing PDs are ignored. This way, you do not have to wait until the last respondent has filled out the questionnaire.

<table>
<thead>
<tr>
<th>Column Control via Field Name Prefixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prefix</td>
</tr>
<tr>
<td>!</td>
</tr>
<tr>
<td>~</td>
</tr>
<tr>
<td>^</td>
</tr>
<tr>
<td>&amp;</td>
</tr>
<tr>
<td>&lt;</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>#</td>
</tr>
</tbody>
</table>

Now how do I make a question be interpreted as open-ended? Quite simple: every field name (question) that has no prefix is an open-ended question by default.

A Sample Table:
By importing the sample table above we get:

- the name, date and author of the resulting PD
- two dichotomous families Academic and Army
- two families Sex::male and Sex::female
- four families Favorites::beatles, Favorites::stones, etc
- two codes “Tell us a dream” and “Open End”

Creation Of Documents

During the import of an Excel™ table exported from a survey tool, one primary document is created from every row. Unlike "normal" PDs who get their contents from files, these primary documents need to have their content (data source) created as well. These data sources are embedded within the HU. The creation of the textual contents is done as follows: Each row is scanned from left to right, column by column. Each cell’s content belonging to an open-ended question field is appended to the currently built document (case). In addition, each piece of appended text is also referenced as a quotation automatically coded with the current question (in the column’s field which is the cell in row 1).

Long Names

While questions can be very long, they do not meet the crispness requirement for code names. To get codes with meaningful but short names without cutting down the original question you can use the :: separator:

Open End::Now how do I make a question be interpreted as open-ended?

This creates a code named Open End. The text following the separator becomes the comment of this code, so that the complete question is still accessible (e.g., in the margin area via a mouse double-click).

The same can be applied to family names (both dichotomous and multiple-choice). Just prefix the response option with the :: separator.

When To Apply The Prefixes?

Unless all columns contain responses to open ended questions, you should mark up the field names prior to importing the table into ATLAS.ti. If you
don't, all responses will be concatenated in the document, and all field names will become codes.

When Creating The Online-survey

By inserting the prefixes directly into the definition of the survey you have the benefit of being able to export Excel tables that do not need further editing. Just wait for responses, download, and import.

The drawback is that such early applied mark-up also displays in the online survey interface and your respondents might wonder about the funny characters at the beginning of questions. If you make use of the abbreviation feature using :: you may need to take care how you formulate your questions:

#Favorites::What bands do you listen to regularly?

This may be an acceptable clutter of the interface. If you plan to use abbreviations for options, this is the only economical way to go.

By Editing The Excel Table

Editing the downloaded Excel table prior to importing into ATLAS.ti has the advantage of not displaying unusual formatting characters to the user.

A disadvantage is that you need to do this every time you download the table, for instance, because you are checking incrementally and not all respondents have filled out the questionnaire yet. Another disadvantage is that you cannot easily use abbreviations for response choices as this would mean going into every cell as opposed to every field (which is row 1 only).

Of course, when all you have is “legacy” data in tables, this is the only option you have.

How To Import Survey Data

1. Prepare an Excel table as explained above.

You can add the prefixes already when you prepare the online survey, or afterward by editing the the resulting Excel table. The drawback of adding the prefixes to the survey is that such early applied mark-up also displays in the online survey interface and your respondents might wonder about the funny characters at the beginning of questions.

Editing the downloaded Excel table prior to importing it into ATLAS.ti has the advantage of not displaying unusual formatting characters to the user. A disadvantage is that you need to do this every time you download the table, for instance, because you are checking incrementally and not all respondents have filled out the questionnaire yet.

1. Mark all cells in the table and format them as Text (right click on the highlighted table and select the option “Format Cells”).

1. Save the table (as xls or xlsx file).

1. Close Excel (or at least the document that you want to import).

1. Open ATLAS.ti and select Documents / New / Import Survey Data.

The import procedure starts and ATLAS.ti informs you when all data are imported.
If there are issues with importing the Excel file, save the table in csv format and try again.

During the import, one primary document is created from every row. Unlike “normal” PDs who get their contents from files, these primary documents need to have their content (data source) created as well. These data sources are embedded within the HU.

The creation of the textual contents is done as follows: Each row is scanned from left to right, column by column. Each cell’s content belonging to an open-ended question field is appended to the currently built document (case). In addition, each piece of appended text is also referenced as a *quotation* automatically coded with the current question.

![Figure 1: Pre-coded data by question](image)

Those columns defined as variables are turned into PD Families. See the full manual for further information. If you select a case, all applicable families are highlighted (see Figure 2).
Special families are created for all imported PDs and codes to make filtering for the survey material easy.

Save the Hermeneutic Unit. As default name the name of the Excel file is used. If you import the same table repeatedly, rows with already existing PDs are ignored. This way, you do not have to wait until the last respondent has filled out the questionnaire.

Analyzing Survey Data

In order to analyze survey data, you should get acquainted with the following features and functions of ATLAS.ti. All of them are explained in detail in the full manual.

- Primary Document Families, especially their use as data attributes
- Basic coding techniques to add some additional codes to the precoded responses
- Code Families
- The Codes-Primary-Documents-Table
- The query tool and the scope function
- Creating and working with super families
- The Co-occurrence-Table-Explorer