NGO-IDEAs

GrafStat Guide

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www.ngo-ideas.net

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1. Introduction

This program was conceived and developed over many years by Uwe W. Diener – at first for use in the educational sector: www.grafstat.com[1].

GrafStat is a program developed for ***designing surveys***. It provides support functions for:

- creation of questionnaire forms
- printable version of the form and HTML forms for use in the Internet,
- different methods of compiling data,
- evaluating and presenting data and results

All these necessary functions can be done within ***one interface***.

1.1 Design of the Guide

This Guide was prepared on the basis of the original GrafStat Manual[2] focusing on functions and examples relevant for NGO IDEAs. NGO-IDEAs publications build further basis for the Guide[3]. The chapters are designed in such a way that they build on each other. If reasonable they are followed by examples focusing on SAGE and PAG. These examples can be found as complete example GrafStat survey together with the NGO-IDEAs GrafStat Guide for download from http://www.ngo-ideas.net/publications/.

The Guide starts with describing how to construct a survey/questionnaire and how to fine tune its design, followed by an example referring to SAGE and PAG. In a third step how to enter data is being explained. The analysis of the data builds an important further chapter and includes SAGE and PAG examples. Under the heading “Administrative survey” some additional and helpful features when working with GrafStat are described.

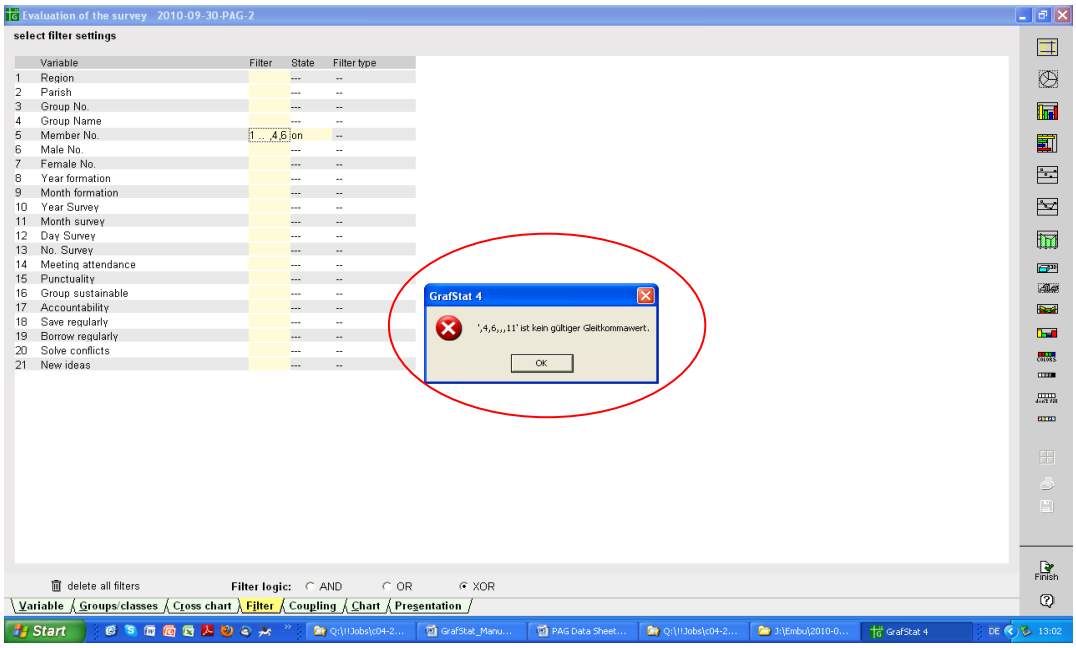
Chapter 7 describes two additional assistants which were developed by Uwe Diener just recently according to specific needs of NGO-IDEAs. The Annex includes guiding examples on how to develop a code list, SAGE and PAG questionnaire and a detailed checklist on how to go about developing a survey with GrafStat. It is advisable to follow the checklist when developing your survey as it summarizes the major issues to be considered, describes pitfalls and links you to relevant pages in the Guide.

[1] www.grafstat.de – webpage for the educational sector, licence free of charge; www.grafstat.com – webpage for the commercial version, licence fee will be charged;.
[2] Some parts of the original GrafStat Manual of Uwe Diener have been copied directly into this Guide.
[3] NGO-IDEAS Impact Toolbox 2011, Participatory Monitoring of Outcome and Impact. Download URL: http://www.ngo-ideas.net/publications/.

1.2 Contact Person in Case of Support Needs

GrafStat is being constantly developed and improved upon. Whatever problems, support needs, comments and ideas users identify or come up with ***Uwe Diener gives support*** as long as it is communicated to him ***via Email:*** ***uwe.diener@grafstat.de***

For Example, sometimes error messages might appear in German. That could be a translation problem, or an error that happens in the depth of the program. ***Feedback is important!*** Please describe what happened and send a screenshot to the programmer:



Reporting / communicating requirements:
Support needs, problems or ideas should be described in details such that they can be reconstructed / understood. Following is an instruction about what is needed most and how best to send it via Email:

1. ***GrafStat Survey Files should be sent as <u>zipped file.</u>***

   The files should be sent as a *zipped file* including all survey documents available (e.g. -gda, -gdf, -fre documents; see page 18). If you receive a zipped file you should make sure that you unzip and save the data before you start working with the data again. If you work on a file that is not unzipped, you will loose all the data you enter.

2. ***Survey Files should be <u>named properly.</u>***

   The name of the files should at least include the *name of the organisation, date and place* so that you can easily distinguish different surveys.

3. ***Where necessary <u>screen shots</u>* are to be included and explained.**

   Producing screen shots: while the window with an error prompt is open, press [Print] on the key board – the screen will be automatically copied – open word and then [paste]. Now a copy of the screen should appear. Screen shots can also directly be copied into an email.

1.3 Getting Started - Acquiring, Installing and Configuring GrafStat

Acquiring GrafStat (by download[4]) is free of charge for public institutions active in the educational sector. These institutions are also permitted to install the program on one or more computers. However, a licence for the commercial version needs to be bought from Uwe Diener. It provides more functions than the free version.

Installing GrafStat

If you want to install GrafStat you need to do the following:

1. Download the programme
2. Unzip it.
3. Open the GrafStat folder and start the installation by clicking on the file 'setup.exe'.
4. GrafStat will suggest to install in C:/Program_folder/GrafStat
   GrafStat is configured to create an icon on your desktop and for GrafStat to open every time you start the computer. You can change these settings during the installation process.

Attention:
→ GrafStat requires Windows and a printer needs to be installed (not necessarily connected).

Configuring GrafStat

Before you start working with GrafStat you should configure it. That can be done during installation. If you want to change settings later, use the GrafStat Configuration Wizard. Go to C:/Programme/GrafStat (or wherever you have installed GrafStat) and open the file 'gsconfig.exe'. A window will open and lead you through the configuration. You can define the folder in which your surveys are to be stored, network functions, proxy settings and copy examples.

Where to store GrafStat surveys:
It is advisable to have one folder where all the GrafStat surveys will be stored. This folder should not be under C:/Programme/GrafStat.

Information on how to install and configure GrafStat in a network can be found in the GrafStat Manual (p. 93/94 in Version 2008):

GrafStat Manual, various GrafStat instruction papers and additional Assistants

A guide with a detailed description of GrafStat and several instruction papers for additional assistants exist. During the installation they are stored in C:/Programme/GrafStat/doc. Following is an Overview of the English documents and additional assistants:

Document	***Content***
GrafStat Manual	Describes in detail how to create a survey, collect data and analyse it. Explains how to administer surveys and gives technical advice and further tips.
GrafStat within LAN	Recommendations for installing GrafStat in a Windows network.
Checklist Internet	Describes the proceedings for an Internet based data collection. Not relevant for NGO IDEAS.
Additional Assistants	
GrafMulti	GrafMulti supports the analysis of the same survey conducted at different points of time with the same group of survey participants. The assistant, too, allows for the establishment of a consolidated matrix (see chapter 7.2 for more information).
GrafPrep	GrafPrep reduces the workload of entering same data for different surveys or within a single survey repeatedly, by: (a) transferring identical information from one survey to another (e.g. from year to year); (b) entering data which are the same for all group members just once and then transferring them to the other group members (e.g. survey number or village name) (see chapter 7.1 for more information).

[4] http://www.grafstat.de/eng/service/edu-register.htm

GrafSelect	GrafSelect allows you to select fragments of a survey, you can (a) extract specific questions or (b) split data of a survey according to specific features.
GrafImport	GrafImport, which is only available in German (December 2011), allows you to import data from e.g. Excel into GrafStat. The advantage: It enables changing the questionnaire structure (add and delete questions) and still keep existing data. But the procedure is quite complicated. It can fail and it can lead to wrong data if done incorrectly.
GrafMix – Instructions	GrafMix allows you two evaluations to be assimilated in a new, single evaluation. Two sets of questionnaires are merged. This might be relevant for some of the NGO IDEAs Partners.
GrafShow - Instructions	GrafShow enables you to compile sequences of evaluations. With GrafShow you can set up pages on which one or more evaluation pages can be displayed and scaled. In addition, the Assistant allows you to insert headings and commentaries. Blending effects assure a smooth transition from one side to the next.
GrafMat Instructions	GraMat allows you to update GrafStat evaluations whenever you want. The evaluation settings you have saved with GrafStat will be applied to your current data. The Assistant can also present on-screen cyclical evaluations and displays, and allows you to save generated graphics.

1.4 Feedback of Partners who started testing GrafStat

Following are some comments on GrafStat received in 2010 from partners who started testing the Software:

Advantages

- *GrafStat is interesting and user-friendly.*
- *Can be used by field level staff with minimum computer literacy.*
- *No scope for mistakes in calculation.*
- *Automatic compilation of data.*
- *Auto generated reports.*
- *Easy evaluation.*
- *Graphic presentation.*
- *Online sharing.*
- *In Excel, formulas need to be used to get the result but in GrafStat, once the data is entered, it yields the result automatically.*
- *Excellent graphical visualization of results.*
- *Less time consuming for data evaluation.*

Challenges:

- *Linkages of villages and the names of the individuals in the SHG group to appear in the questionnaire (from PWR to SAGE to PAG).*
- *Some of the messages appear in German language.*

2. Construction of a survey/questionnaire

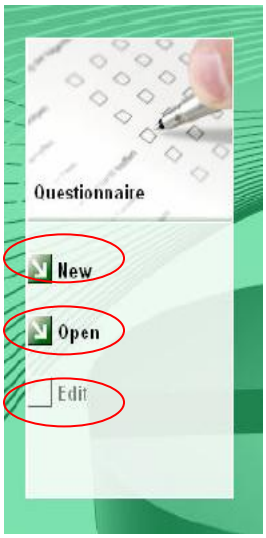
If you have no experience with GrafStat it is advisable to begin with developing a questionnaire as draft in word, considering the checklist in the Annex IV, before entering the questionnaire into GrafStat.

If you want to compare surveys of different times with each other, make sure

- you use exactly the same questionnaire for the first, second and following surveys,
- while developing the questionnaire think ahead such that questions are still relevant for further data collection,
- you limit the number of questions to a few most relevant ones,
- that a year later you can still find the questionnaire you used for the first survey.

2.1 Creating a new survey

GrafStat starts an assistant leading you through all necessary steps to create a new survey.



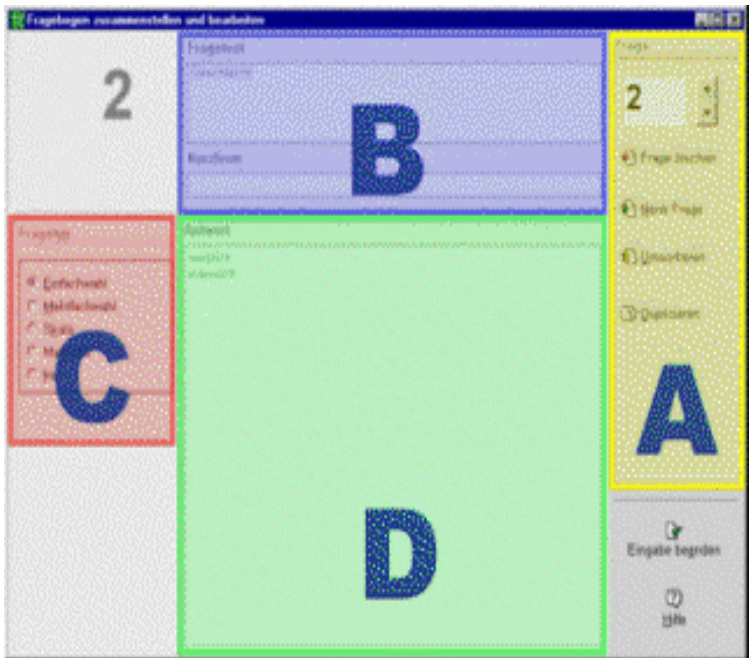
Open GrafStat and then
- Click on [NEW] to start a new survey;
- Click on [OPEN] to open an existing survey/questionnaire;
- Click on [EDIT] to work on an existing survey/questionnaire.

Create a *new folder for each new survey, village or district* as while working on a survey, you will quickly accumulate a large number of single files.[5]

Attention:
→ Name of the folder should be the same as survey name, and at least include the name of the "Type of Survey – Organisation – Date – Place", e.g. "SAGE-KRWCDS-2010-06-Karwar"
→ Long path names should be avoided as much as possible as they could cause problems

2.2 Construction of a questionnaire

Select in menu: Questionnaire; Button: [new, open or edit]
A question in a GrafStat survey consists of the following ***editing windows/elements of questions***:



(A) Buttons

Delete question: Deletes the current question from the questionnaire.
New question: Inserts a new question after the last entered question.
Rearrange: Opens a window containing a list of all questions; here you can rearrange the questions as you wish – move the new question to another place.
Duplicate: Duplicates the last entered question, and adds the copy to the end of the questionnaire. You can then choose whether to edit the original or the copy of the question.

[5] For a complete survey at least the following files will be created:
- name.**GDF** - the questionnaire form
- name.**STV** - Style template for the form
- name.**GDA** - the collected answers
- name.**FRE** - text file containing the answers to open questions and text responses.

Additional files will be created for the saved graphs and presentations.

(B) Question text

- ***Long question text*** (up to 250 characters) - This is where you enter your question text.

> ***Attention***:
> → Only number the questions if you have your own system (e.g. Q1, Q1.1,…) otherwise you can add numbers later, when editing the printed form automatically
> → Don't enter explanatory notes at this stage. You will have the opportunity to include instructions etc. before you print the form. (see chapter 3.1).
> → Hard returns are not allowed when entering the question text.

- ***Short question text*** (*up to 100 characters*) - *Optional:* If you enter a short question text, GrafStat will use it as a heading in the basic evaluation and for the relevant graph in the data analysis later on. If you don't enter a short question text the long question text is used in the data analysis. It is advisable to use the short question text if questions are too long. If need be, you can still think of changing the headings when analysing the data.

(C) Defining the question type

GrafStat allows for 5 different types of questions:

1. Single Choice 2. Multiple Choice 3. Ordinal Scale	4. Measured Scale 5. Free-Form / Open Questions

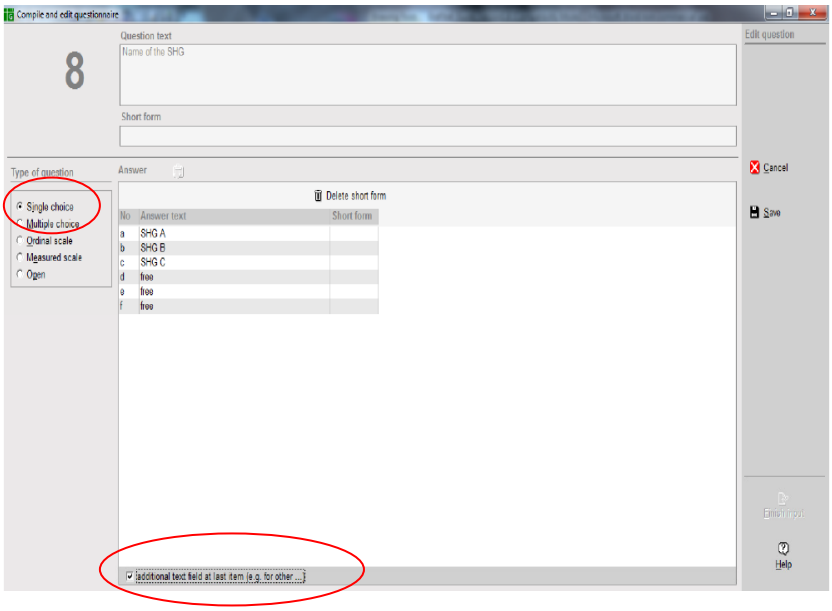
Select a question type by clicking on the respective check box beside the type. To decide which question type to choose read the following description of the question types, their advantages and disadvantages.

> ***Attention:***
> →In general, ***ordinal scale questions are preferable in the NGO-IDEAs context***. There are a few exceptions. If ordinal scales are not suitable, look for other types.

(D) Creating the answer guidelines for the chosen question type

Enter the possibilities for the responses. GrafStat will automatically insert letters or figures to number the items you have entered.

Single / Multiple Choice
(*Up to 32 answer choices and 250 characters per suggested response*)



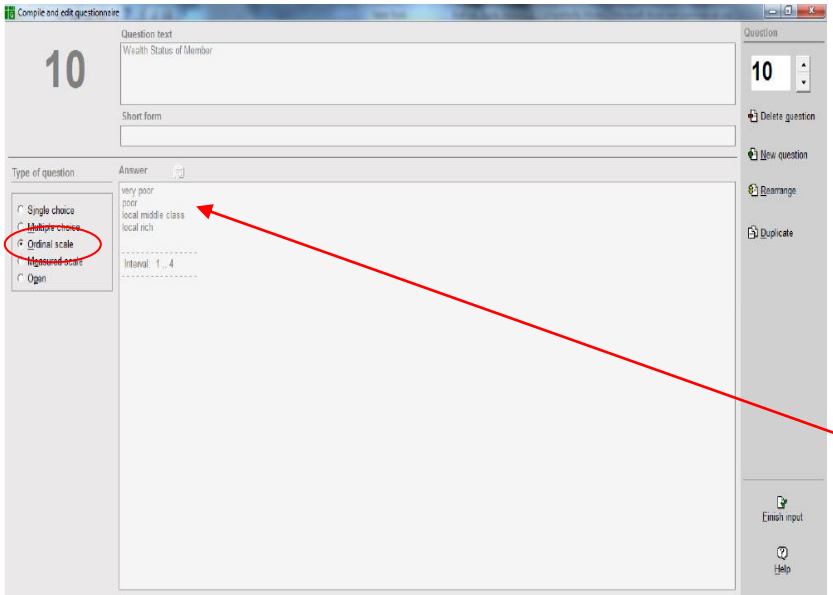
(1) *Single Choice:* From several choices given only ONE suggested response can be selected per question. GrafStat will set a lower case letter (a, b, c …) in front of each possible response.

(2) Multiple Choice: allows for the selection of more than one response by the person completing the questionnaire.
GrafStat will set an upper case letter (A, B, C …) in front of each answer in this case.

The choices of answers for the two question types must be easy to understand and clear and distinct from one another.
To make sure it is possible to answer these questions you should always consider carefully if it would be sensible to allow 'loose' responses, such as "Other". For that you can use the 'additional text input field' on the bottom of the GrafStat window to add a text box at the end of the choices.

> ***Attention***:
> → ***Only 32 answer choices*** are allowed in single and multiple choice questions. In case you have more than 32 SHG, Villages, etc. to enter, you need to use a code list (see Annex I) and develop ID numbers for each SHG, village, etc.. The answer type then needs to be a measured scale and you enter the number instead of the name of each SHG or village in the questionnaire (see also chapter 3.4.1)
> → ***GrafStat cannot analyse text responses.***
> In case you want to count the text responses or add SHGs later on you have to use a trick. Add some additional choices ('place holders') by naming them e.g. 'free' to the respective question, while you construct the questionnaire. In chapter 3.4.1, question no. 7 or 8 you can see an example of what it will look like in the questionnaire, e.g. question no. 8 asks for the SHG. In case you want to add a SHG later you could do this by renaming the 'place holder' and it will be considered in the analysis. In chapter 5.4.2 and 5.4.5 it is shown how such questions are processed.
> → **Analysis of single/multiple choice questions**.
> If you want to couple and aggregate variables (see below), the questions need same answer choices and values. Single and multiple choice questions might not be the suitable question type to choose. Ordinal scales should be preferred.

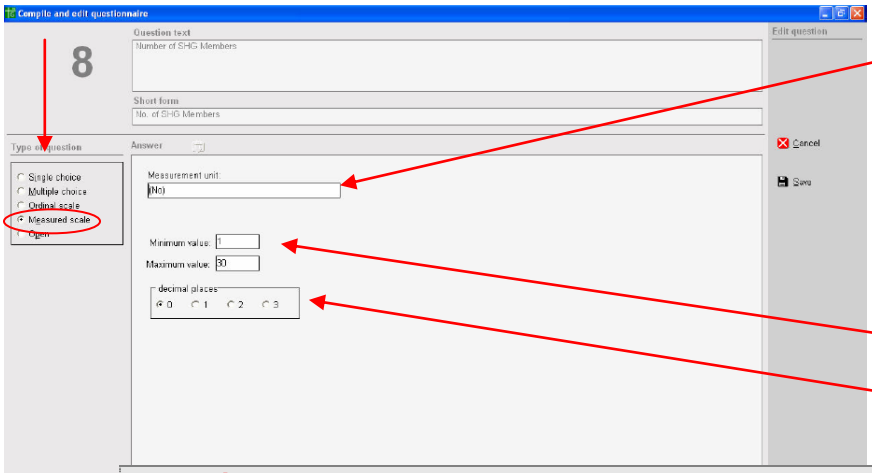
Ordinal Scale
(The range of the scales can be between 0..10 or -5 .. +5.)
Ordinal scales are used for answers to scale questions containing a given order and sequence. To facilitate understanding, the individual values will be assigned terms. E.g. the two extremes of the scale could be labelled as 'very good…very bad.' GrafStat then presents the scale in a single line, with the labels of the two extremes to the left and right of the scale. Or it is done as seen in the screen shot, *ranking the poverty status* of SHG members from 'very poor' to 'rural rich'. It is very important to rank the options in an ascending or descending order.



Scales can have an even or uneven range or values. It is also possible to create symmetrical scales, for example from -2 to +2. These scales are useful for questions which allow for a negative through to a positive response.

Measured Scale *(Interval scale)*

In measured scales, the distance between adjacent points on the scale are equal.[6] GrafStat requires details on the '*unit of measurement*'. In the example the unit is 'No.' for the number of SHG members.



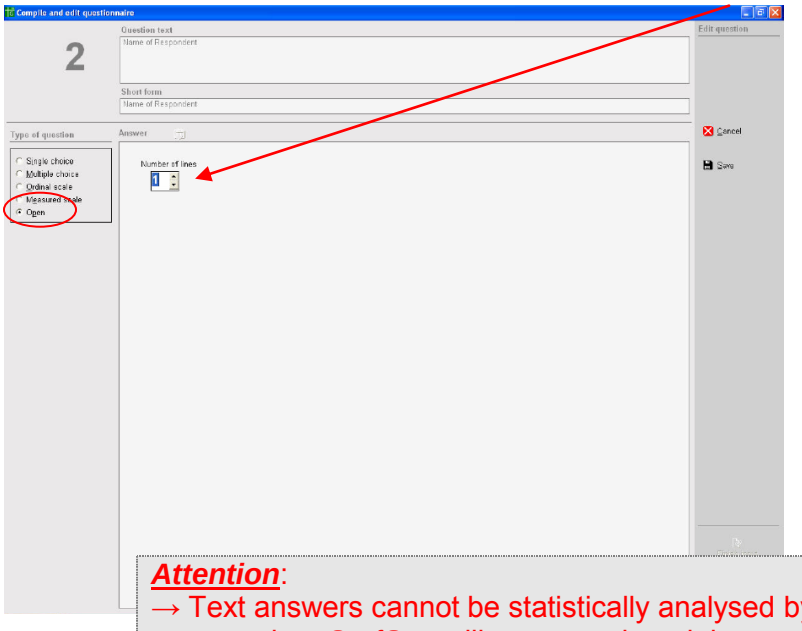
To guarantee the correctness of the entries it is also necessary to set the '*upper and lower limits*', as well as the '*decimal point*' settings.

Attention:
→ By setting minimum / maximum value, values which are higher or lower will no longer be valid and for that not accepted when entering data.
→ In respect to the analysis of a specific set of groups you have to consider that with measured scales it is only possible to analyse/filter e.g. group "1-5" but not group "1-3 and 5", i.e. it is not possible to exclude groups when setting filters (see chapter 5.2.4). In case you want to analyse selected groups you have to save the survey under a new name and delete all data/groups not relevant to your analysis. This can be done in the Basic List: GrafStat Menu: Enter Data; Button: [Basic list/Export] (see chapter 4.3).

Open Questions

(Open question allow up to 5000 characters for the answer.)

An open question (also referred to as open ended question) is an unstructured question in which (unlike in a single or multiple choice question) possible answers are not suggested. It provides qualitative information. You can choose the *number of lines for the answers* according to the expected complexity. However, these answers cannot statistically be evaluated using GrafStat. GrafStat records the text entries during the data entry. For the analysis all text responses to a question will be compiled and displayed in one text document (rtf) or in the basic evaluation (see chapter 5.1). They can be exported (e.g. in Excel or Access) and further processed manually or using other Software (see chapter 4.4).



Attention:
→ Text answers cannot be statistically analysed by GrafStat. If you have an open question, GrafStat will not count it and there are no graphical displays.

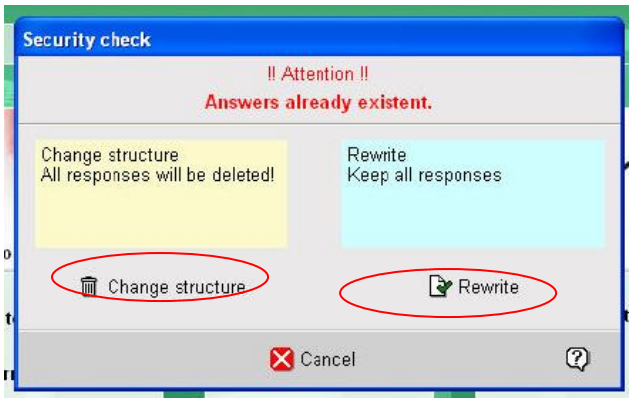
[6] For instance, the Fahrenheit thermometer scale is an interval scale, since each degree is equal but there is no absolute zero point. This means that although we can add and subtract degrees (100° is 10° warmer than 90°), we cannot multiply values or create ratios (100° is not twice as warm as 50°).

2.3 Editing a questionnaire

Select in menu: Questionnaire; Button: [edit]

With this function you can make changes to the current questionnaire or continue working on a questionnaire by following the steps described in chapter 2.2.

It is advisable to be sure of the structure of the questionnaire before entering any data. This includes thinking ahead of what you need for the analysis while constructing the questionnaire. For example, if you want to couple data (see chapter 5.2.5) later on you need to make sure that respective questions are all of the same question type.



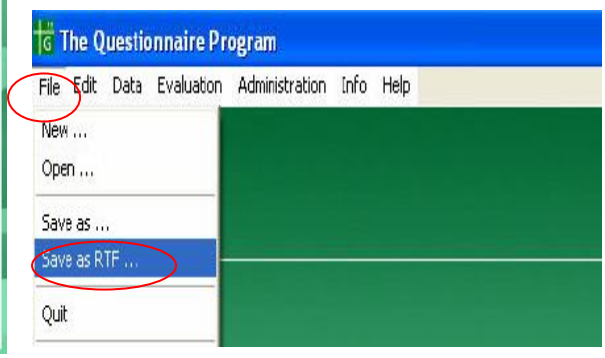
Attention:
→ If you go to Questionnaire/ Edit after entering data, GrafStat offers two options: „Change structure“ or „Rewrite“. **If you click on “Change structure“ you will delete all responses.** If you click “Rewrite” it is possible to change the wording of questions and keep the responses.

3. Design Questionnaire (Final editing of the design in the printed form)

Select in menu: Design Questionnaire; Button: [printed form]

There are three options to further edit a questionnaire: ***(1)*** in the ***printed form***, ***(2)*** in the ***internet form*** or ***(3)*** in an ***rtf document.***

As the internet form is not relevant to NGO-IDEAs, we will only describe how to edit the questionnaire in the printed form.

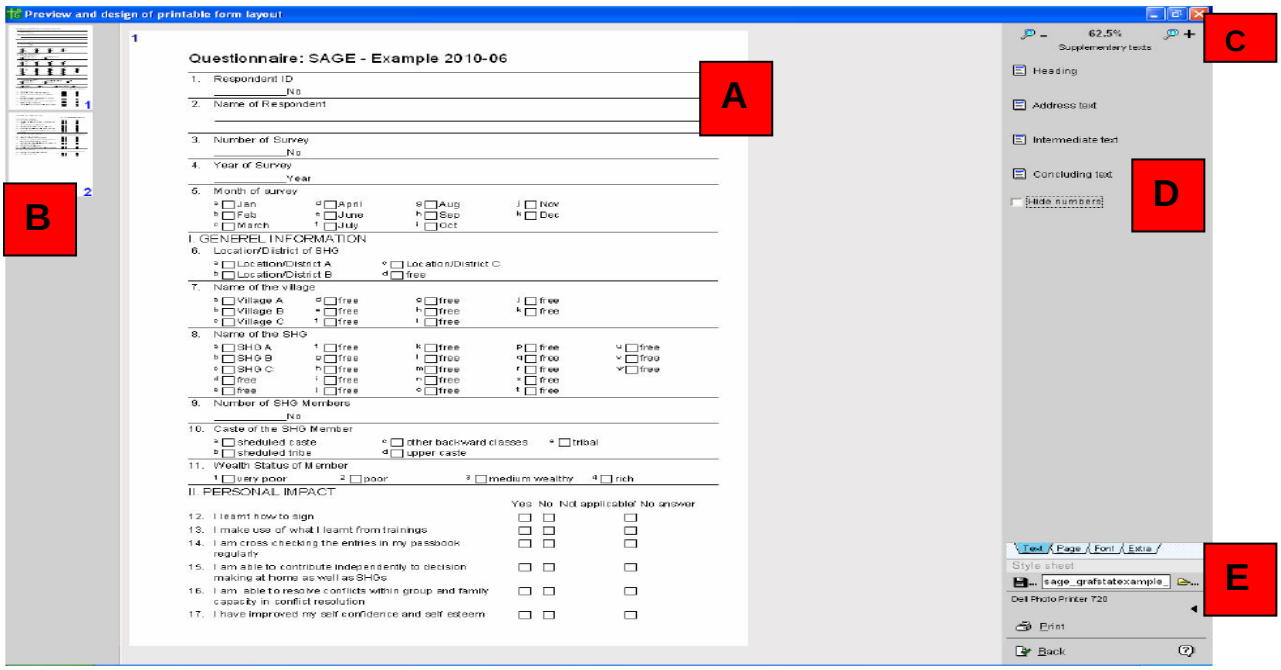


To edit the questionnaire in an rtf document you have to save the questionnaire as a RTF (Word) File: *Go to „File“ „Save as RTF” in the GrafStat Entry page*.

Attention:
→ Changes on the RTF questionnaire are not transferred to GrafStat

The Printed Form

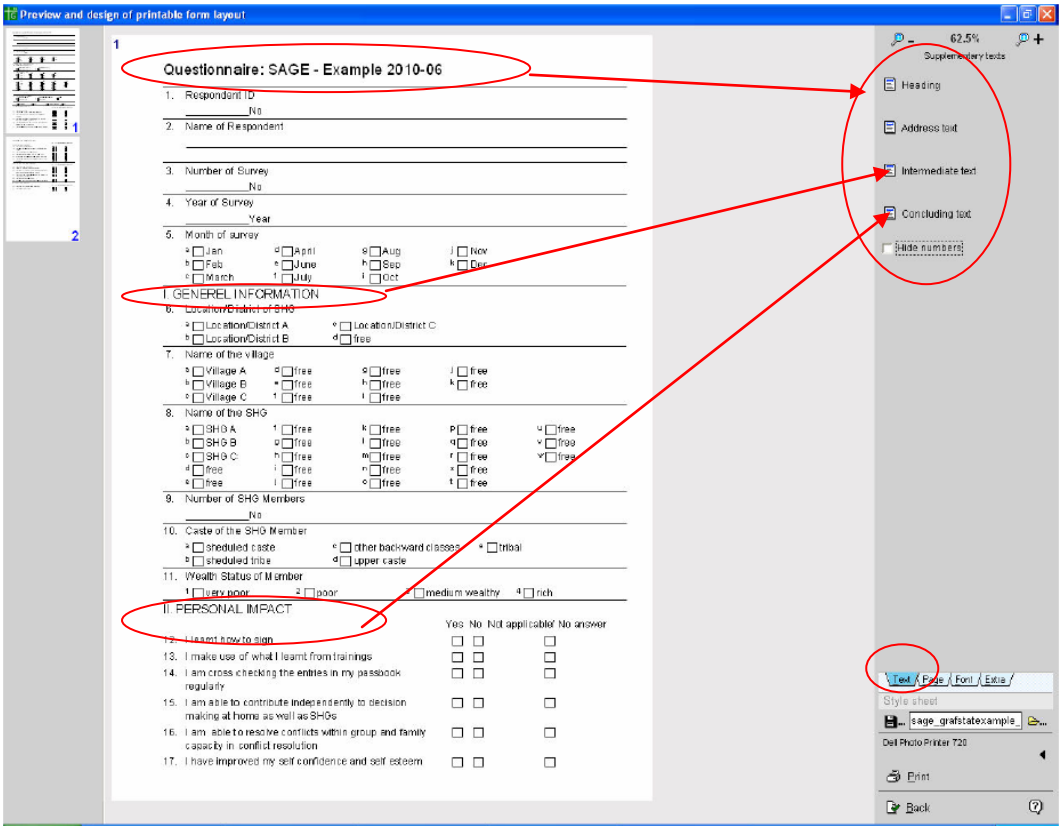
The Printed Form gives you the possibility to format the questionnaire and add additional information texts.



A) Preview page	a zoomed-in display of the print version.
B) Page selection	You can use this bar to click directly on the page you wish to go to.
C) Zoom	Adjust the magnification of the preview page using the buttons [+] and [-] in the upper right of the screen.
D) Additional text and design	Listed in four index pages. You can use the buttons on the index page „Text" to supplement your questionnaire with additional texts such as headings, introductions and tips for each individual question. Using the command buttons on the index page „Page" you can make the settings for page format, columns, borders, additional margins, and the optimal use of space. The index page „Font" allows you to make adjustments to the font, font size and line spacing. Index Page "Extras" offers some additional design options, e.g. colouring the check boxes, adding your Logo, headlines or footers.
E) Printer selection	A text field will display the current printer in use. Double clicking in the field allows you to select another printer.

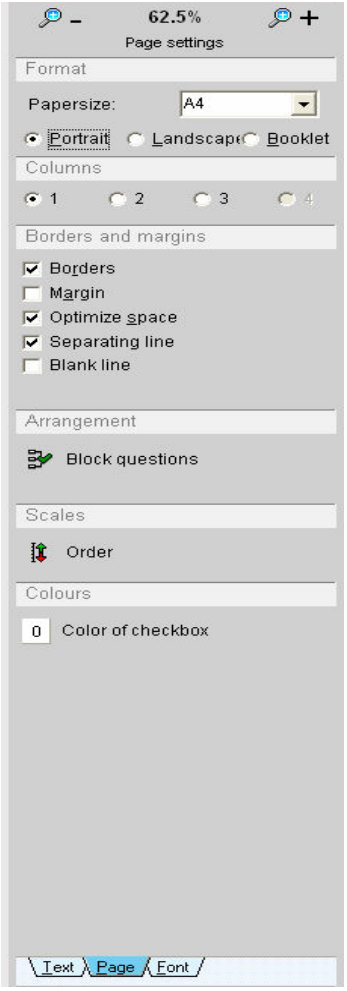
3.1 Index page „Text“

You can use the buttons on the index page „**Text**” to supplement your questionnaire with additional texts such as headings, introductions and tips for each individual question.



Heading	The heading will appear at the top of each printed page of the questionnaire.
Address Text	You can use this option to place an address text at the beginning of the questionnaire. Usually, this text will contain a brief introduction to the questionnaire and a few encouraging words. Enter a short, compact text.
Intermediate Text	Each question can have a comment attached to it. The comment field can appear before or after the relevant question. This placement is controlled using the option command “place before question”.
Concluding text	Here you can enter another text which will appear at the end of the questionnaire following the last question. E.g. you can use this concluding text to thank the interviewee.
Hide numbers	You can use this option to switch off the automatic numbering of the questions. This is useful when you wish to apply your own structure to the questionnaire while designing it (see chapter 2.2).

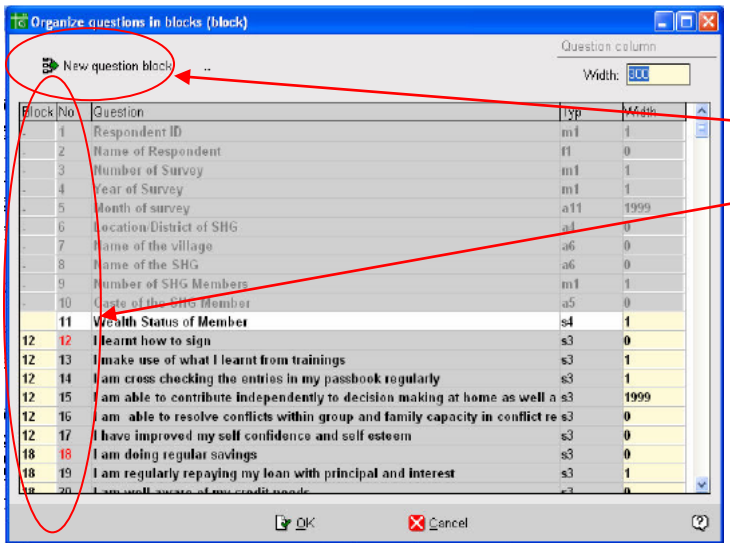
3.2 Index page „Page“



Using the command buttons on the index page „**Page**“ you can create the settings for page format, columns, borders, additional margins, and the optimal use of space:

Portrait / Landscape format	These settings define in which format the page will be printed.
Booklet	This command prints the questionnaire on a DIN A4 page in landscape format, with two pages of the questionnaire in A5 format next to each other on a printed sheet, so that a folded booklet can be made out of the questionnaire. (This printing method saves a lot of paper.)
Columns	Make better use of the available space on a page. GrafStat allows up to 4 columns. The exact number available depends on the format you are using. The full 4 columns are only available when printing in landscape format. Printing as a booklet or compiling question blocks reduces the number of columns which can be used.
Borders	A form without borders makes better use of the available space on the page - reduces the number of pages.
Margins	If you would like to file the questionnaire, for example in a ring binder, you can select a margin for the form (roughly 2 cm).
Optimizing space	Compile various answer items in one line. The program will itself conduct all necessary calculations. It will also ensure a regular spacing of all items.
Question blocks	Compile selected questions into one compact block. Only questions with the same question type can be blocked.

Selecting questions for a block



This is how you create a question block:

- Click on the button *[NEW QUESTION BLOCK]*
- Then click in the [*COLUMN BLOCK]* next to each desired question.

The question number appears in the cell, and the number in the column „No.” will change to red, marking the beginning of the block. A question block consists of a consecutive sequence of questions, with no gaps. Therefore, only the next question in the form can be added to a question block.

This is how you can *expand a question block*:

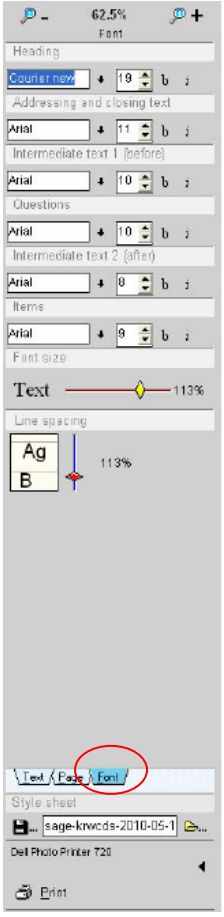
- Simply click in or below the block number in the column „Block“. The starting number of the block will now appear in this cell.

This is how you *remove a question from a block*:

- Click on the number in the „Block“ column. The block number disappears and, in case other questions further down are also part of this block, they will also be removed, as there can be no gaps in a block.

Attention:
→ Begin building a block of questions only after the questionnaire is complete. Once the blocks have been compiled, you should avoid making further changes in the area “Questionnaire – Edit” otherwise you run the risk of removing the blocks.

3.3 Print Questionnaire – Index Page „Font“



The index page „**Font**“ allows you to make adjustments to the font, font size and line spacing.

Font size	Adjust the font size using a clickable control in a designated place. As all typefaces in the document are altered by this, a percentile value is used. When the setting is at 100%, the font size from the style file will be used.
Line spacing	Adjust line spacing using a clickable control in a designated place. The adjustments to line spacing are expressed in percentiles and can be used: to save space; to use space more regularly
Fonts	Select the fonts from drop-down-lists

Attention:
→ After finalizing the questionnaire it is advisable to keep it as a master copy and **always work with a copy of the questionnaire** when entering data.

Attached GrafStat Example
Following the SAGE or PAG GrafStat example attached you need to ***open the ‘gdf’ document*** with GrafStat. Select in the ***Menu:*** **Design Questionnaire; Button: [printed form]**
Now you can reconstruct how we added text parts (e.g. intermediate texts like “general information”; “personal impact”) and in SAGE also how we blocked the questions (see chapter 3.2).

3.4 Example Questionnaire

The example can be followed by opening the GrafStat files attached to this Guide. The files include all the examples presented in this Guide (chapter 3.4 and 5.4) and contain the following SAGE and PAG documents:

Sage_GrafStatExample_2011-12.**gdf'**	PAG_GrafStatExample_2011-12.**gdf'**	the questionnaire form
Sage_GrafStatExample_2011-12.**gda'**	PAG_GrafStatExample_2011-12.**gda'**	the collected answers
Sage_GrafStatExample_2011-12.**fre'**	PAG_GrafStatExample_2011-12.**fre'**	text file containing the answers to open ended questions
SAGE_GrafStatExample_Questionnaire_2011-12.**rtf**	PAG_GrafStatExample_Questionnaire_2011-12.**rtf**	the designed questionnaire saved as word format
Sage_GrafStatExample_2011-12.**stv**	PAG_GrafStatExample_2011-12.**stv**	style template for the form
GrafStatExample_BasicReport_SHGB_Survey1_2011-12.**rtf**	PAG_GrafStatExample_basic-report_Survey1-2011-12.**rtf**	a first general analysis
Sage_GrafStatExample_EconomicImpact_SHG2-Survey1_2011-12.**jpg**	PAG_GrafStatExample_AbilityToSolve Conflicts_Survey1-2011-12.**jpeg**	exported graph for presentation purpose e.g. for use in word or power point

To see how a questionnaire is constructed and/or edited ***open the SAGE or PAG 'gdf' document*** with GrafStat and go to the ***GrafStat menue 'Questionnaire', Button [Edit].*** The GDF document is the one to open whenever you want to access the (example) questionnaires (chapter 2 and 3), entered data (chapter 4) or analysed data (chapter 5).

Following are the some questions of the SAGE and PAG GrafStat example:

3.4.1 Header Data

Generally for comparison and separation of data in the analysis each survey needs some specific **'header data'** for the analysis (e.g. comparison between SHGs, different survey times or different poverty status). The minimum of ***data which need to be collected for SAGE*** (similar to PAG) include the following:

Questionnaire: SAGE - Example

1) Respondent ID — Measured Scale
_____ No

2) Name of Respondent — Open question
_____

3) Number of Survey — Measured Scale
_____ No

4) Year of Survey — Measured Scale
_____ Year

5) Month of survey — Single Choice
[ ]a Jan [ ]e May [ ]l Sep
[ ]b Feb [ ]f June [ ]j Oct
[ ]c March [ ]g July [ ]k Nov
[ ]d April [ ]h Aug [ ]l Dec

I. GENEREL INFORMATION

6) Location/District of SHG — Single Choice
[ ]a Location/District A [ ]c Location/District C
[ ]b Location/District B [ ]d free

7) Name of the village — Single Choice
[ ]a Village A [ ]c Village C [ ]e free
[ ]b Village B [ ]d free [ ]f free

8) Group ID — Measured Scale
_____ No

9) Name of the SHG — Single Choice
[ ]a SHG A [ ]c SHG C [ ]e free
[ ]b SHG B [ ]d free [ ]f free

10) Number of SHG Members — Measured Scale
_____ No

There is a need to have a **CODE LIST** (see Annex 1 for an example) to answer question number 1 and 8:

The code list is essential for the data entry. At least each member and each group needs a number for the GrafStat Software (respondent ID / group ID) which needs to remain the same during all the surveys. The number needs to be given at data entry. The groups will not get to know which number refers to which member. This guarantees anonymity in data presentation within groups but also to outsiders who might get result reports.

The respondent ID allows you, for example, to compare the development of the situation of a single SHG member or group over the years. It also makes it possible to correlate respective village and the SHG member by filtering respective data in the analysis (see chapter 5.2).

Entering the number of the survey – question 3 – allows you to analyse the development results over a certain time period by comparing different times with each other, the names (or Respondent IDs) of the villages and SHGs allow you to compare data by village or SHG by setting respective filters.

GrafStat offers, with its additional assistant GrafPrep, a way of dealing with header data which have to be entered repeatedly, i.e. same data within a single survey or same data which needs to be transferred from survey to survey. For more information see chapter 7.1.

Attention:

→ As described in chapter 2.2 – under the creation of answer guidelines:
Think of 'place holders' as it was done in question 6, 7 and 9 of the example. These allow you to add village names or SHG names in case you want to include more in the survey.

→ *Consider Limitations:*

Single and multiple choice questions allow for 32 choices only. If you have over 32 SHGs or villages which you want to include in GrafStat you should use measured scale as question type instead of single choice and connect the number to the SHG or village name in a code list.

→ Certain header data are a must to be able to make analysis with GrafStat relevant to NGO-IDEAs tools. These include:
(1) survey number,
(2) respondent ID and
(3) group ID.

3.4.2 Well-being Status of the SHG member

To link the results of Participatory Well-being Ranking (PWR[7]) with SAGE you only need to include the 'Well-being Status of SHG Members', as result of PWR, into the SAGE questionnaire. This allows you to track changes in economic, social, cultural & political situations & status according to poverty/wealth status.

In PWR you classified community members' households into at least four categories. E.g.:

Extreme poverty	Very poor quality of life	("Very poor")
Severe poverty	Poor quality of life	("Poor")
Poverty in subsistence	Acceptable quality of life	("Local middle class")
Simple affluence	Good quality of life	("Local rich")

At least two categories should be below the poverty line, and two categories should be above the poverty line:

Ordinal Scale

10) Wealth Status of Member

[ ]1	very poor	[ ]3	local middle class
[ ]2	poor	[ ]4	local rich

[7] or Participatory Wealth Ranking

3.4.3 Specific questions

Specific questions have to be formulated according to the aims of the SHGs such that it can be monitored to what extent aims are achieved over time. Following are some example questions for SAGE and PAG (see Annex II for the complete questionnaires):

Ordinal Scales

SAGE

II. PERSONAL IMPACT

	Yes	*No*	*Not applicable/ No answer*
11) I am able to contribute independently to decision making in the SHG	*[ ]1*	*[ ]2*	*[ ]3*
12) I am able to resolve conflicts in my family	*[ ]1*	*[ ]2*	*[ ]3*

If you want to have more detailed/differentiated results for your analysis it is advisable to use 5 point scales and other scales then Yes/No *(see Annex III for examples and Toolbox page 42-5).*

Ordinal Scales

PAG

C. ECONOMIC IMPACT

13) Members of the group save regularly as agreed
[ ]1 Very little (None) [ ]4 Good (Bigger Part)
[ ]2 Little (Smaller Part) [ ]5 Very good (All)
[ ]3 Fair (Half)

14) Group members borrow regularly from the group funds
[ ]1 Very little (None) [ ]4 Good (Bigger Part)
[ ]2 Little (Smaller Part) [ ]5 Very good (All)
[ ]3 Fair (Half)

15) All group members engage in additional viable IGA that bring extra income
[ ]1 Very little (None) [ ]4 Good (Bigger Part)
[ ]2 Little (Smaller Part) [ ]5 Very good (All)
[ ]3 Fair (Half)

Attention:

→ As mentioned earlier on, if you want to couple everything belonging to 'Personal Impact', 'Socio-Cultural Impact', 'Economic Impact', 'Political Impact' or 'Sustainability' you need to make sure that respective questions are all of the same question type, include the same number of responses.

→ *Ordinal or single choice questions?*
If you want to block questions you should use ordinal scales as the question type. Blocks compile selected questions into one compact block but only scale questions can be blocked. In all forms questions will then appear to the left in descending order, with the tick box to the right, as you can see in the SAGE example above (see also chapter 3.2)

4. Enter Data

Onscreen interviews
This method of data entry is very useful if inexperienced persons have to enter data. It is the most convenient method for collating data. You can use this method of data entry when you wish to conduct the questionnaire directly on-screen.

Data list entries
List entry can be used for entering, checking and correcting data in the questionnaire.

Basic list / Export
The basic list provides an overview of all the data in a survey. You can also use it for deleting specific data records or exporting data.

Job-Sharing
It is possible to share the job of entering data at different work stations and compile the data afterwards to one work station (chapter 6.2). For entering data, you could use the free version of GrafStat, while the data analysis should be done in the commercial GrafStat version.

Entering Data in different GrafStat files
We suggest saving the data for e.g. different SHGs, villages or districts in separate GrafStat files for better data management. After entering the data (e.g. each village gets one file for all their assessments) different files/results (e.g. compile the results of the different villages) can be compiled through 'compile data' (see also chapter 6.2). Therefore, you will be able to easily track developments over time for each village, at the same time compare developments between villages by compiling the data of different villages to a new file.

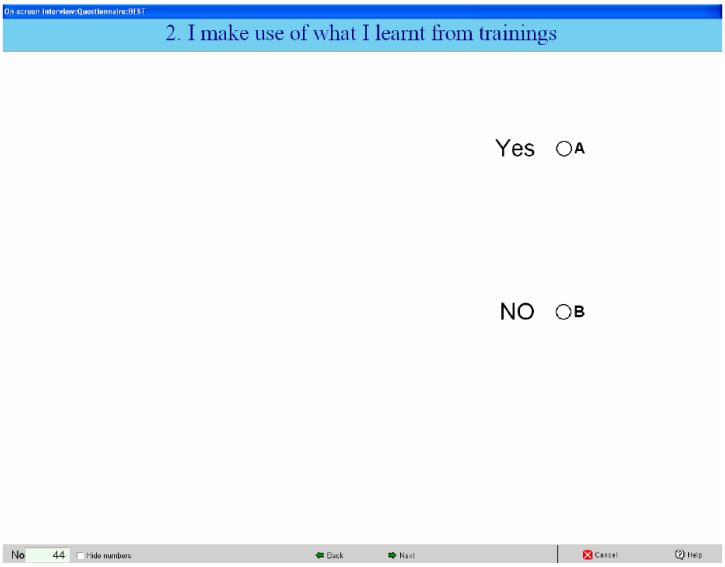
ATTENTION:

ALWAYS ENTER DATA INTO A COPY OF THE ORIGINAL QUESTIONNAIRE

→ Working with a database like GrafStat means that there is no "reverse changes button". What you have changed, is changed. If a major mistake happens, if data is deleted by accident, people sometimes have to repeat days of work!
→ There is protection: Regularly save a new version under a new name in a new folder. Do that every day at the end of the day. If you destroy data, at least you have yesterday's data still available. And remember: Change folder name and file name.

4.1 Onscreen Interview

Select in menu: Enter Data; Button: [On-screen interview]



Usually, in the answer window, only one question at a time will appear, unless you have set up question blocks for similar questions during the design phase of the questionnaire. In that case, the complete question blocks will appear on the screen.

Entering answers
Use the mouse to click on the button for the desired answer (or type letter A or B in this case.

Correcting answers
Repeat the process described above in entering answers *and the button will appear once more in ‚deactivated' mode.*

When answering single choice or scale questions, you can use any answer button you want. GrafStat will ensure that only one answer is selected.

Next question
- press the button [NEXT]
- or press [RETURN]

Previous question
- press the button [BACK]
- or press [ARROW LEFT]

Abort
If you wish to stop data entry in the questionnaire, press [ABORT]. All data entered of the current case will be deleted and you will be returned to the start window.

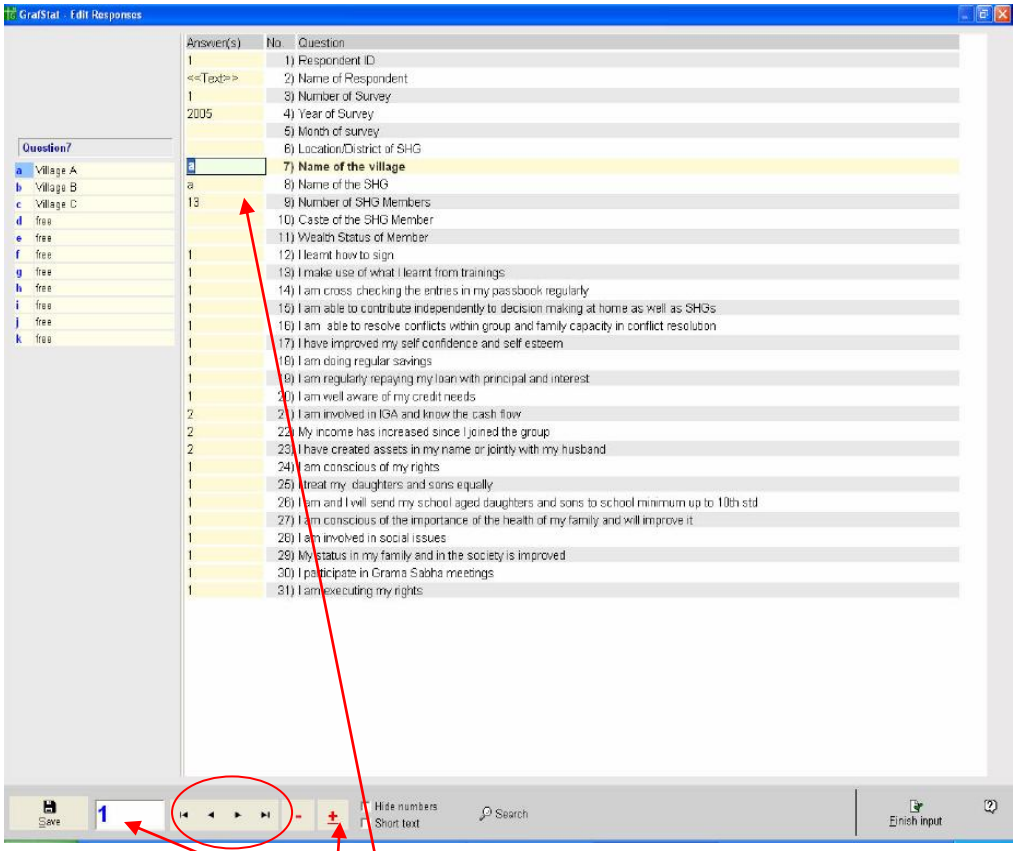
Save
When you have answered the last question, a small window will appear. You can now choose whether to save the entered data or not. If you click on [CONTINUE], then the data will be saved.

The answer window is only visible when you are going through the questions, that is, during the course of the interview itself.

Attention:
→The answer window is only visible while conducting the interview. You can only get an overview of the data of an interview if you go to "Data List Entry" or in the "Basic Evaluation". The best way to correct data is doing it in the "Data List Entry".
→ It is also possible to pass a question without choosing the option button. GrafStat does not give a notice that the question was not answered.

4.2 Data List Entry

Select in menu: Enter Data; Button: [Data list entry]



You can perform the following tasks in this section:

Data input	*Data is entered in the cells in the yellow list*. Simply click in the chosen field in the yellow list, the relevant question will be clearly highlighted, at the same time, the entry marker will appear in the green input field now type in the answers. (Letters are for single and multiple choice selections, numbers are for scales and measured scales) To go to the next question: [RETURN] or [CURSOR DOWN] Alternatively, you can enter the data by clicking on the desired values in the answer scale for the question.
Save data	Once the last question in the questionnaire has been finished, simply press [RETURN] or **[SAVE]** and GrafStat will save the data.
Adding a data record	use the ***[+]-button*** in the navigator and the program will jump to the end of the database, a new data record will be created - as long as the *number shows as red*, the data record is not yet saved. Now enter the questionnaire information then save the data record using **[SAVE]**
Show data record	Move the data record cursor using the *navigation buttons* to the desired data record
Edit data record	display the desired data record, click on the desired question in the yellow data entry field, change the answer, if necessary, change further answers then press [SAVE]
Delete a data record	display the desired data record, use the *Delete button **[-]*** on the navigator.
Find data	click on the question, in whose answer you wish to search for data (the search functions only with measured scales and open questions); open the context menu using the right mouse button, click on „Search“, enter the search term (and set if the program should search forwards or backwards), then click on [CONTINUE SEARCHING] GrafStat will now show the next data record which contains the search term. If no data record is found, you can begin the search again from the other end of the database.

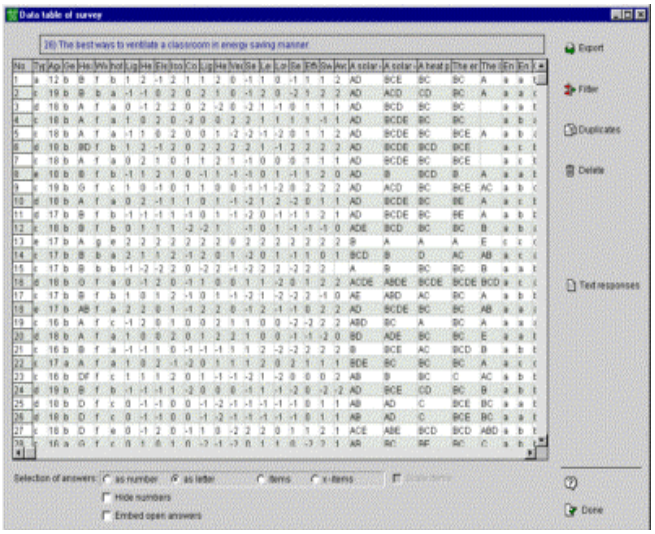
Attached GrafStat Example
Following the SAGE or PAG GrafStat example attached you need to ***open the 'gdf' document*** with GrafStat select in the ***menu:*** **Enter Data; Button: [Data List Entry].**

Remember: When entering data the code list is essential (see chapter 3.4.1).

4.3 The basic list

Select in menu: Enter Data; Button: [Basic list/Export]

Attention:
→ You can access the basic list / export and evaluation functions GrafStat offers on its entry page only after you have entered data.



The basic list provides an overview of all the data in a survey. You can also use it for deleting specific data records or exporting data. In the basic list window you can see all the data presented in a table format. When you move the cursor over the table, the line above the table will display the question text relevant to the column under the cursor.

You can direct the display of the basic list using the option fields below the table.

Option field „as number"	The single and multiple choice selections appear in the table as numbers.
Option field „as letter"	Answers appear in letters; in multiple choice selections as a series of letters.
Option field "Items"	Instead of being represented by letters or numbers, the answer texts from the questionnaire are displayed in the table.
Option field „x-Items"	Text answers will be shown in the table. In addition, GrafStat places the relevant letter in front of each answer text in the table.
Option field „Scale texts"	When you choose this option, the labeling of the scales will be transferred instead of letters or numbers.
Tick box „Free-form answers"	If you activate this field, then the answers to free-form questions will be shown in the table. For technical reasons, however, the answers thus exported will not be visible in the table on-screen

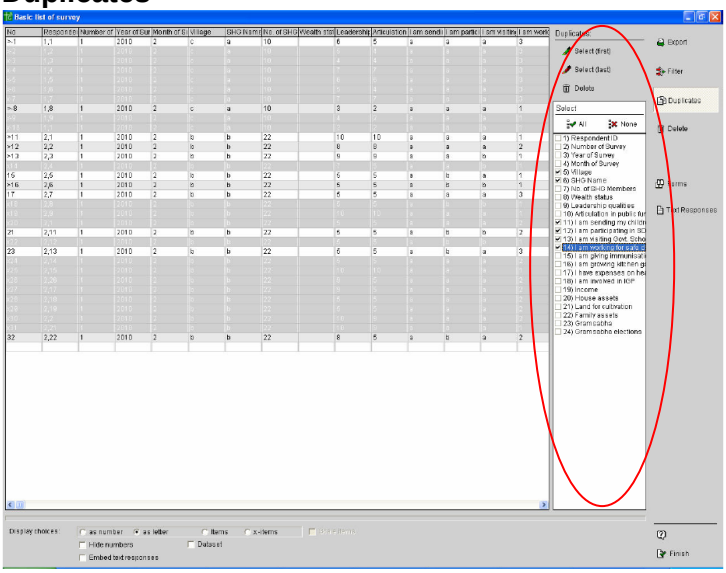
Deleting specific sets of data
As it is not possible to analyse a selected set of groups, e.g. group 1 to 3 and 5, i.e. to exclude groups when setting filters (see chapter 5.2.4) with measured scales, you could use the [DELETE] button in the basic list to delete all data/groups not relevant to your analysis before you proceed in analysing selected groups.

Attention
→ Always save the survey under a new name before you delete data!

Filter

You can use the „Filter button", to the right side of the window, to filter data before export. For a detailed description see chapter 5.2.4.

Duplicates



Sometimes it can happen that same data are entered twice, due to mixed up lines.
GrafStat can identify and delete multiple entered data records.
In the light green check list you can define which variables used in your survey are to be evaluated when checking for duplicates. The button [HIGHLIGHT] begins the search for duplicates. GrafStat will then run a check on all data records and will highlight those data records in which the given variables are identical. You can delete all the found duplicate data records using the [DELETE] button.

When you click in the first column (the running numbers) the line will be highlighted. Clicking once more removes the highlighting. Clicking on [DELETE] permanently removes the data record from the data bank.

Attention:

→ Be careful when using the delet button – Deleted data cannot be restored!

→ It may happen that two people give the same responses to every question. This will always happen when a questionnaire contains either no, or too few, variables which allow for a definite classification.
You must then make the selection yourself for each question individually – GrafStat can provide little help in such cases. Check your classification settings very carefully before deleting the highlighted data records – deleted is deleted.

4.4 Exporting Data

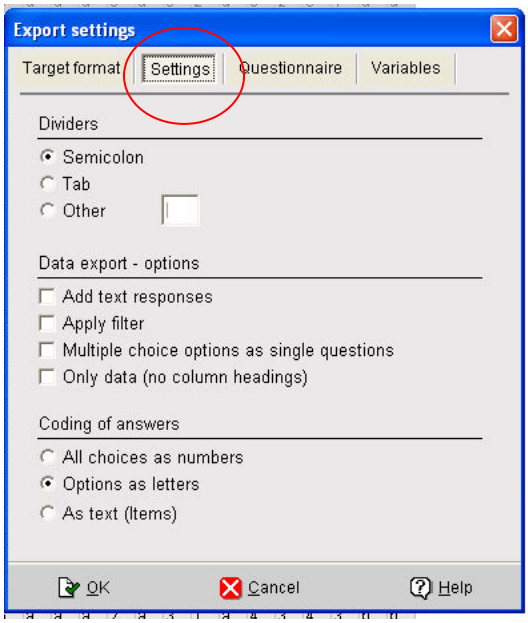
Select in menu: Enter Data; Button: [Basic list/Export]

The chapter (and the GrafStat column) is about entering data. But it is also possible to export data to data base or spreadsheet programs, like SPSS and Excel. This allows you to further evaluate the data and construct e.g. multivariable-cross-analysis-tables which cannot be developed in GrafStat. However, GrafStat is not an easy program in this. Handling this function needs expertise in dealing with databases.

Clicking on the button [EXPORT] on the left side of your basic list will open a dialogue window in which all the settings for exporting data can be made:

1. Index page 'Settings'

On this page you can define the dividers, the encoding of the answers, and other important details for export.

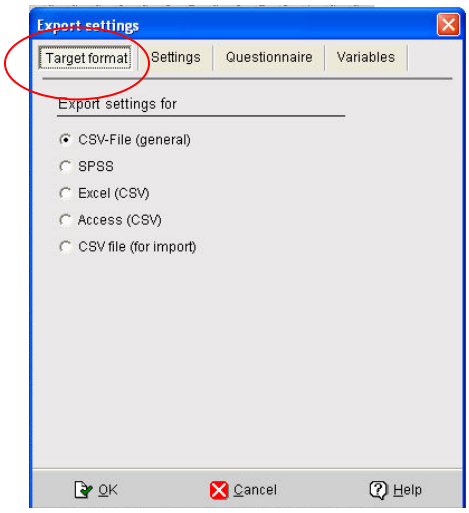


Dividers	GrafStat places dividers between data fields. As well as semi-colons and tabs, you can use any character you choose. You must however always select a character which does not occur in the text itself. That is why such an unusual character is used in the input field for „other"; the vertical line [|].
Data Export Options	
Add text responses	This option includes all answers to free-form questions in the data export.
Use Filter	You can filter the data you wish to export following preset criteria. For example, if there is a question about gender in the questionnaire, you can use the filter to select only the male test persons for export.

Multiple choice options as single questions:	Unlike GrafStat, many other programs have great difficulties dealing with multiple selections. Using GrafStat, you can separate multiple selections into single answers. This means that each answer option to a GrafStat question will be exported in its own data column, using a 0 or a 1 as answer.
Only Data	Usually, the data export will contain the questions (or short question texts) as column headings in the first line of the export. In some cases, however, this heading line can be a problem, for example when exporting for SPSS.

2. Index page 'Target format'

On this page you can define the export settings for some programs with a single mouse click. The option fields directly operate the settings on the „Settings page". The export always takes the form of a text file.



GrafStat exports the data records from a survey file in the following format:

- each data record is written as a paragraph with the paragraph sign CR/LF
- individual data is divided by semi-colons, tabs or other characters of your choosing
- the first data record contains the short question texts
- individual data is exported in ASCII-characters

This format is suitable for all programs which are able to import tables in text formats, for example Excel or SPSS. You may have to select the dividers to suit the target program. Multiple selections can be separated out into single answers and be thereby optimally prepared for data import.

Example - Exporting data from the attached GrafStat example into Excel:[8]

In the attached SAGE GrafStat example you need to ***open the 'gdf' document*** with GrafStat. Select in the ***menu:*** **Enter Data; Button: [basic list / export].**

You could ***practice exporting data*** by following the above steps choosing e.g.:

- Target format – excel (csv)
- Settings – semicolon; add text responses; and as text (items)

Then click [OK] and save it to the file. Now you can open the file in Excel. The data are either displayed in a table or in one column, separated by semicolon:

```
sign;trainings;cross checking;decision making;conflict r
1;1;1;1;1;1;1;1;1;2;2;2;2;1;1;1;1;1;2;1
1;1;1;1;1;1;1;1;1;2;2;2;2;1;1;1;1;1;2;1
1;1;1;1;1;1;2;1;1;2;2;2;2;1;1;1;1;1;2;1
1;1;1;1;1;1;2;1;1;2;2;2;2;1;1;1;1;1;2;1
1;1;1;1;1;1;1;1;1;2;2;2;2;1;1;1;1;1;2;1
1;1;1;1;1;1;1;1;1;2;2;2;2;1;1;1;1;1;2;1
```

Caution: If you find "0" among the data – something went wrong. Try again.

In case Excel displays the data in a column, you need to do the following to transfer them into a table: Highlight the first column (column A). Then choose from the menu:
German: Daten / Text in Spalten, English: Data / Text to columns

An assistant opens, choose the following options:

German	***English***
Step 1: Choose: Getrennt	Choose 'Delimited'
Step 2: Trennzeichen: Semikolon Texterkennungszeichen: kein	Delimiters: 'Semicolon'; Text qualifier: 'None'
Step 3: Datenformat der Spalten: Standard	Column data format: 'General'

Now you have a normal Excel table which enables you to process data further, e.g. construct your own multivariable-cross-analysis-table.

[8] The export from GrafStat to Excel might vary slightly according to different MS-Office Versions.

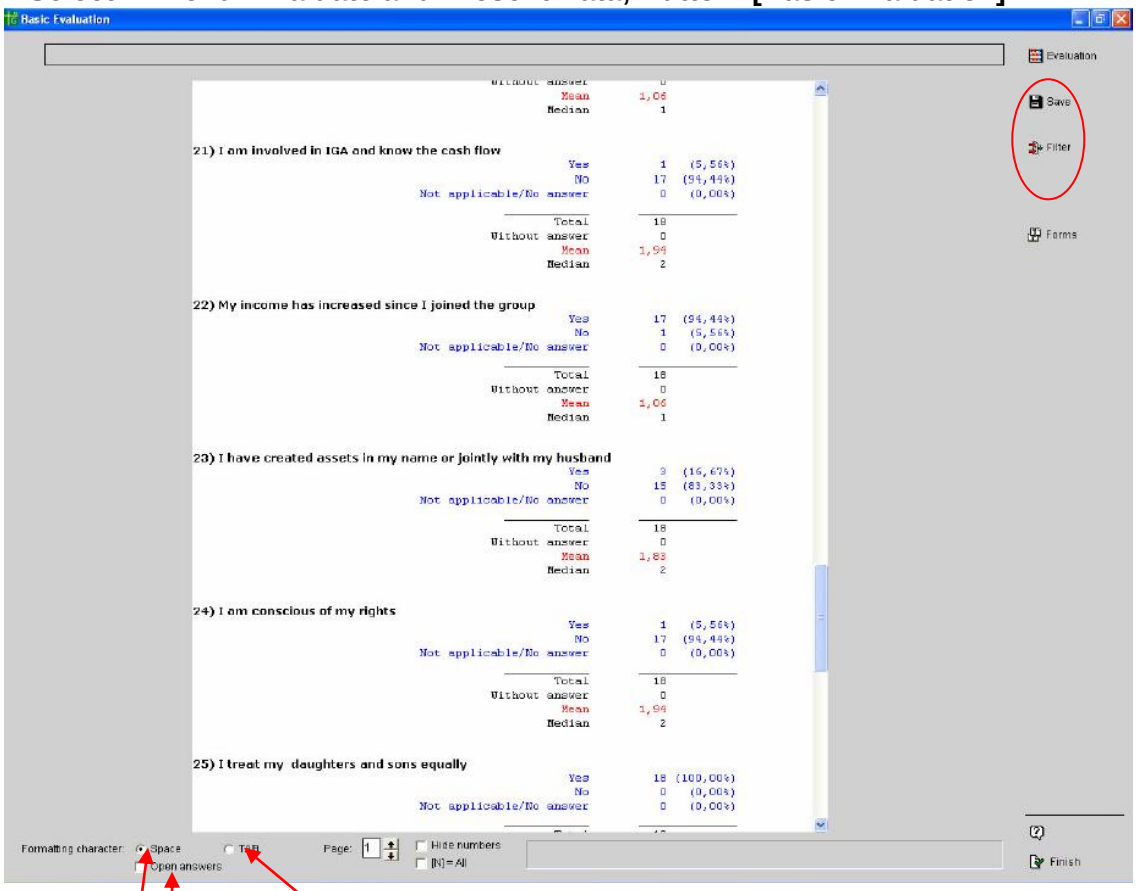
5. Analysis and Presentation of the Data

Basic Evaluation *(Results Summary)*
GrafStat offers with the basic evaluation a means of assessing and counting complete surveys. One mouse click creates a text which shows the counted values for all variables.

Charting *(Detailed Analysis)*
Charting gives you the possibility to analyse your data in detail through combining variables and applying filters, selecting options for graphs, etc. The functions range from leafing through the saved evaluations to the compilation of HTML presentations. Graphs you have created and saved can be printed as you wish and exported to other programs of your choice.

5.1 Basic Evaluation - Summary of Results

Select in menu: Evaluate and Present Data; Button: [Basic Evaluation]



By opening the 'Basic Evaluation' the above *evaluation text* is created which *shows*

- *the absolute values for all variables*,
- *and percentage values,*
- *the totals and amounts of data records without answers.*
- Ordinal scale questions also display: *Mean value and median*
- Measured scale questions also display: *Minimum, maximum and mean value*

FOR ADVANCED USERS
You can save your evaluation as rtf document and edit it by opening it in word. The setting "Space" is easier for on-screen display, but the „TABulator" setting is better suited for further text editing work and should be selected if you wish to continue working on the text in rtf. If you click on open answers, they will be displayed within the basic evaluation.

For technical reasons, GrafStat saves the basic evaluation in several parts if the survey comprises more than 49 variables. In this case a new file will be saved for each 50 variables. You can then leaf through the saved pages using the page selection control at the bottom of the page.

Setting Filters

Purpose of Filtering: If you want to analyse one variable only, and other variables would have counter-productive effects on your analysis, (e.g. only Members of one SHG), or you wish to create an analysis with 2 dimensions, then you can use a filter. This instrument allows you to adopt certain variable features into the count. If these relevant features are not present, then the entire questionnaire will not be included in the count. For example, this would allow you to filter out „Members of a specific SHG" and then graphically display the variable „their contribution to decision making at home or in the SHG".

It is possible to set filters when making the basic evaluation. Just click on the [FILTER] button to the right of the window. For example, you might need the summary of results on SHG 1 at the baseline survey. Simply set the filters to these two aspects. If you wish to keep the evaluation, you just save the generated RTF files under a new name.

For a detailed description on how to set filters see chapter 5.2.4.

Attached GrafStat Example

In the SAGE GrafStat file you will find an *example basic report for SHG2 – Survey. The document is saved as rtf:* 'GrafStatExample*_BasicReport_SHG2-Survey1_2011-12.**rtf'***

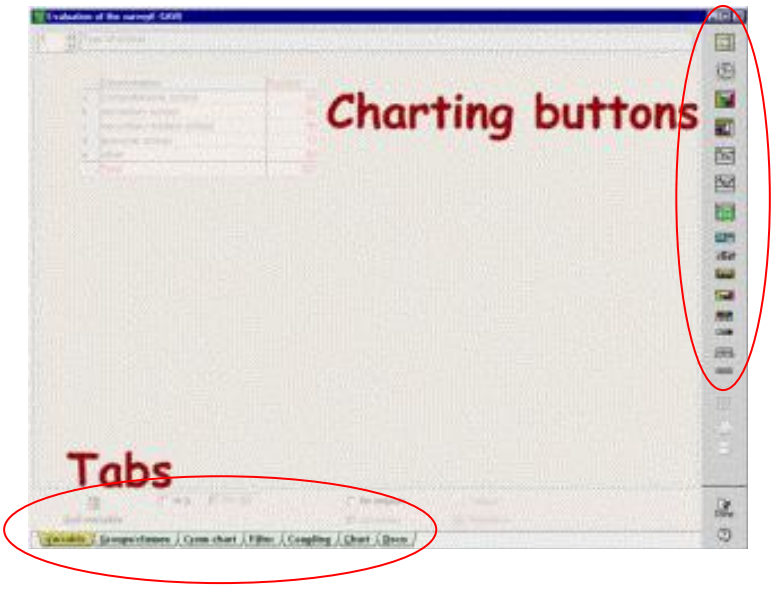
To practice you could try to save your own basic report by setting filters. Open the ***'gdf' document*** of the attached GrafStat example with GrafStat and select in the ***menu:*** **Evaluate and Present Data; Button: [Basic Evaluation]**

5.2 Charting – Detailed Analysis

Select in menu: Evaluate and Present Data; Button: [Charting]

The evaluation window shows *two operating areas* to help you *in navigating* the many evaluation possibilities:

- ***Buttons*** are used for selecting design type and display possibilities
- **Tabs** (***Index pages***) are used to select various control and viewing pages. The seven index pages control elements and graph displays.

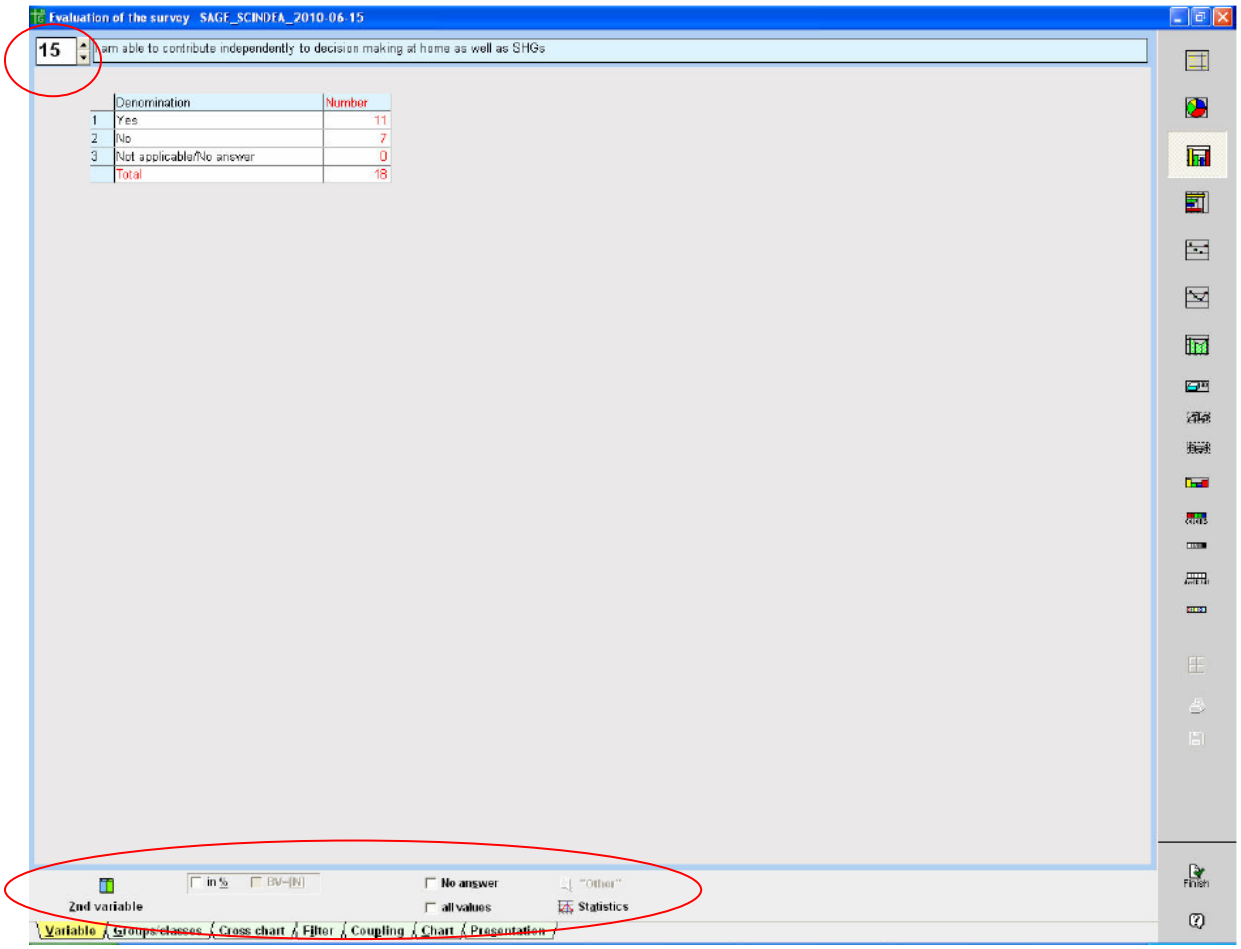


The seven index pages contain control elements and graphic displays.

Variable	Basic settings for evaluations
Groups/Classes	Groups of answer items/classification of measured scales
Cross charts	Rough evaluation of cross charts
Filter	Filters data material
Coupling	Display different variables
Chart	On-screen display of the evaluation
Presentation	Compilation of a HTML-presentation

5.2.1 Index page „Variable“ (Example chapter 5.4.1)

Select the variable from your survey which you wish to evaluate.



Checkbox [in %]	Shows the evaluation in percentiles.
Checkbox [BV=N]	For multiple selections, the total number of responses is used in the basic settings as a Base Value, and not a random sample. This option allows you to set a random sample as the Base Value. This allows the total of percentile values to exceed 100%.
Checkbox [No answer]	In addition, the number of unanswered questions will be assessed. The evaluation will then include an extra item, „No answer“.
Checkbox [All values]	This is a specialized evaluation format in which all gathered data are displayed in graphs. This option is only really useful for measured scales and scales.
Button [„Other“]	This button is only active with selections which include an extra text input field for supplementary information (for example, „Miscellaneous“). Press this button, and you will see an overview of all gathered supplementary text answers. You can save this overview using the button [SAVE], which is at the bottom of the screen. The text responses will be saved as a text file under any name you choose. The text file can then be edited using whichever tools you choose.
Button [Statistic]	This button is only activated if a second variable has been selected, and which contains a measured scale or a scale. If Statistic is activated, then various statistical indices will appear under the table.
Button [2nd Variable]	This button adds a second variable to the evaluation. This is then a so-called bi-variant evaluation; as with the first variable, you can now select the second variable in the right screen. On the index page “Cross chart you can view the table belonging to this summary, or view a graphical display of the data table on the index page “Graph.

5.2.2 Index page „Groups / Classes“ (Example chapter 5.4.2)

> ***Attention***:
> → *Grouping is only applicable for selections (single or multiple choice) and ordinal scales.* You can use classifications for measured scales.

If a variable in your survey was defined in a too divergent way, GrafStat offers you the possibility to integrate items in a new group. For example: If you have four categories of wealth status (see below), but you want to put categories together so that you have only two groups, this chapter explains how to do that. When properly applied, this data compression gives your evaluations greater clarity and weight.

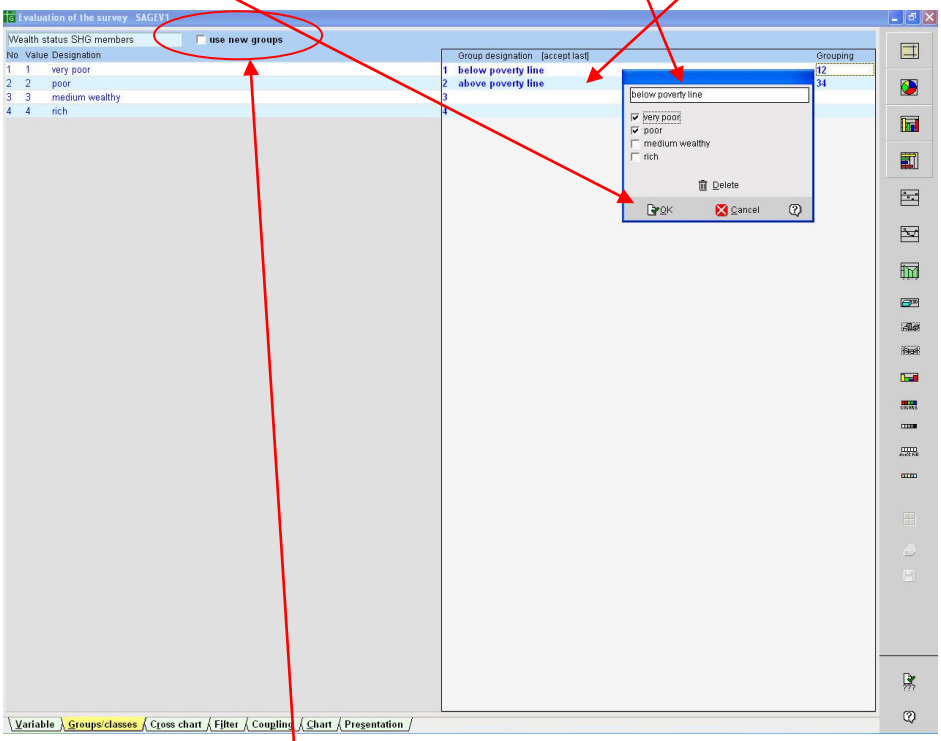
Creating groups

If you wish to reduce the number of a variable's scale values[9], then you can integrate several scale values into one new group. For example, from the several groups describing the Poverty Status of the SHG members two groups could be build (see also example chapter 5.4 2):

1. Below poverty line (very poor, poor)
2. Above poverty line (local middle class, local rich)

Steps:

1. Chose the respective variable on the index page 'variable'
2. Go to the index page groups/classes
3. Click in the right table window in <u>the uppermost free line of the column</u>
4. A window will open asking you to give a <u>name to the group</u> in the upper line and <u>select the items</u> which belong to the group
5. click on [OK] to close the dialogue window



The new group will now appear in the first line of the table. When you want to create more new groups, simply click in the next free field in the column „Group“. The new groups will be used as soon as the option "<u>Use new groups",</u> left side top of the window, is activated. You can deactivate the grouping just as easily without having to delete anything.

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[9] Whereas *grouping* is about reducing the values of one question/variable by building new groups, *coupling* compiles several variables from an evaluation and presents them together in a joint graph (see chapter 5.2.5) and *calculated variables* offers the option of calculating new variables from the existing variables (see chapter 6.3).

FOR ADVANCED USERS

Creating classifications: When working with measured scales, you can create classifications which can be used for the evaluation. When using the default setting GrafStat always creates two classifications.

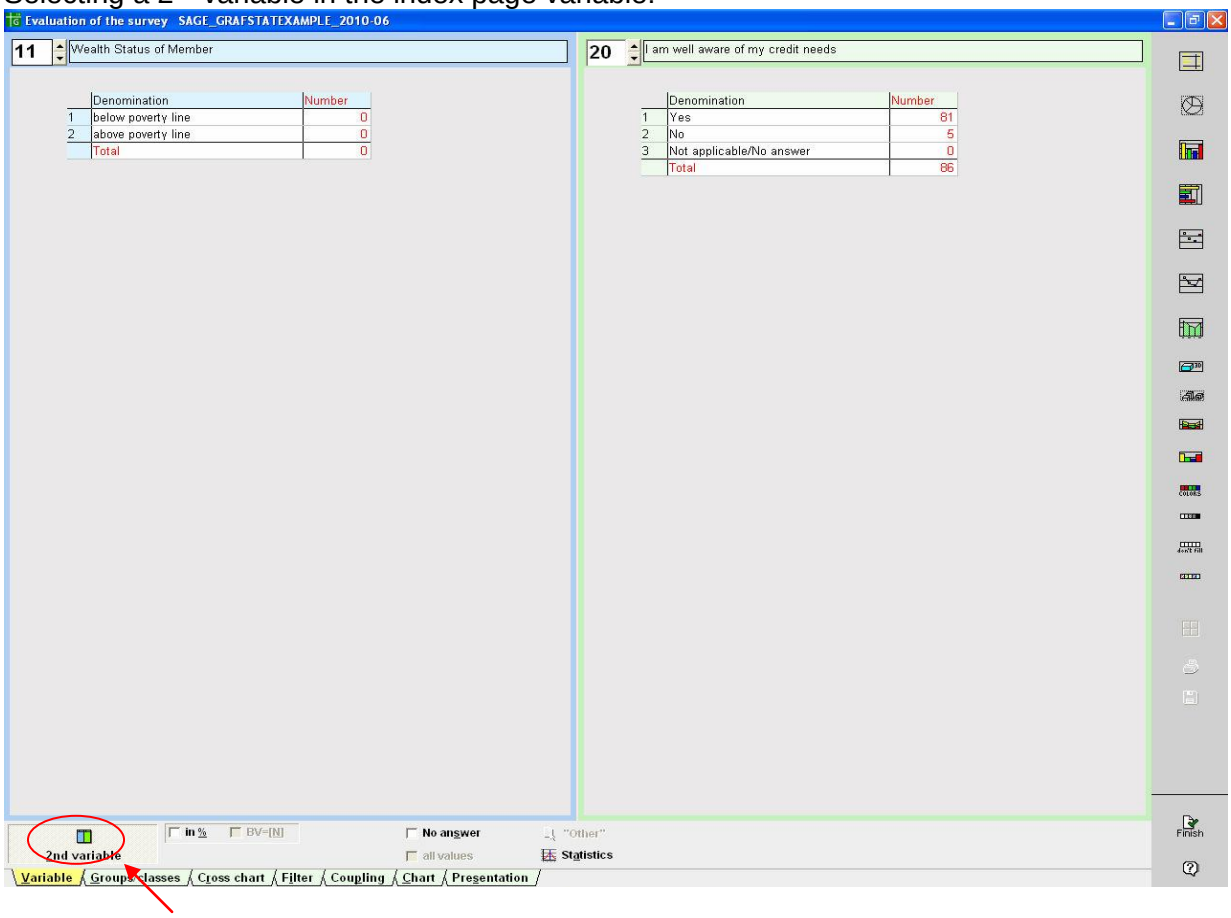
(1) Calculated classification You can let GrafStat calculate the new classifications by entering the number of classes required in the input field. GrafStat then calculates the span (or range), and ensures regular intervals, and displays the results in a table.

(2) Manual classification: When using this method you must first define the number of classes. Then you input in the class table the required upper values for the classification. The highest value you input here will NOT be reckoned as part of the classification! The last value must therefore be at least 1 higher than the highest data value gathered in the survey. You need to enter a minimum value in „lowest value“.

5.2.3 Index page „Cross chart “(Example chapter 5.4.3)

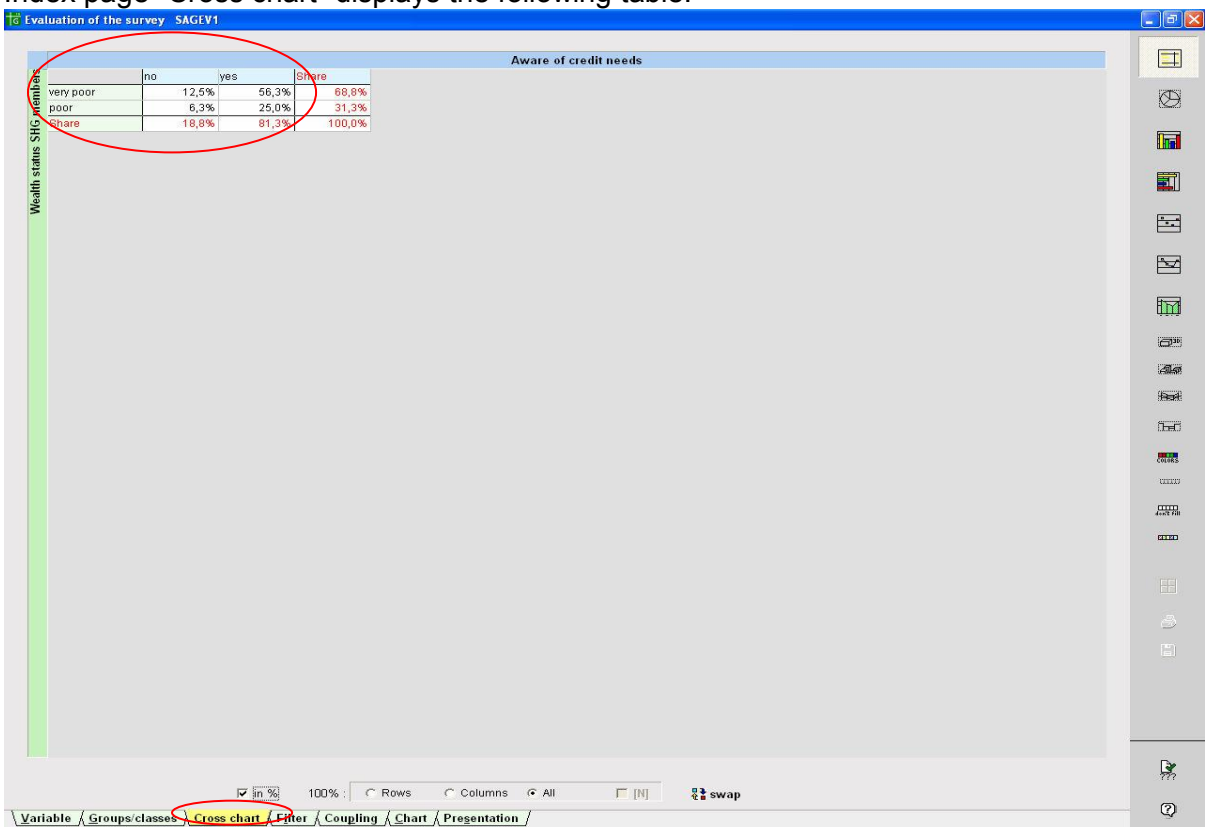
This page shows a Cross chart when a second variable has been selected in the index page ‘variable’ (see 5.2.1 explanation 2nd variable in the table).

Selecting a 2nd variable in the index page variable:



The button *2nd variable* on the index page “variable” adds a second variable to the evaluation. After selecting the first variable, you can now select the second variable in the right screen. On the index page “Cross chart” you can view the table belonging to this summary:

Index page “Cross chart” displays the following table:

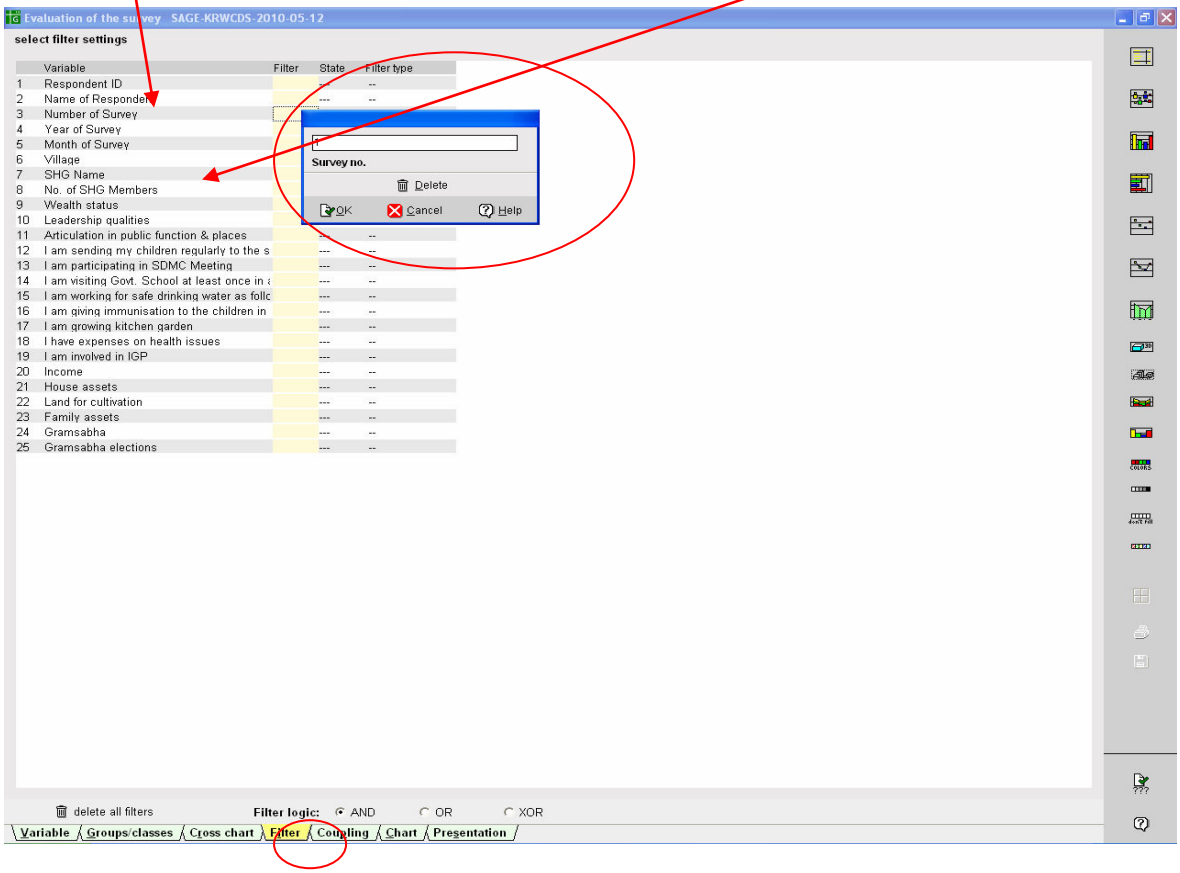


When working with percentile evaluations, the basic value - the unit of reference - is very important. GrafStat offers 3 options:

- *Rows* the current line total is the base value
- *Columns* the current column total is the base value
- [N] random sample value N is the base value

5.2.4 Index page „Filter“

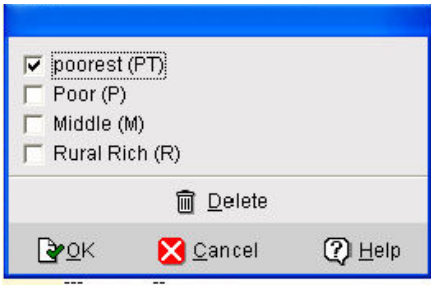
Purpose of Filtering: If you want to analyse one variable only, and other variables would have counter-productive effects on your analysis, (e.g. only Members of one SHG), or you wish to create an analysis with 2 dimensions, then you can use a filter. This instrument allows you to adopt certain variable features into the count. If these relevant features are not present, then the entire questionnaire will not be included in the count. For example: If you want to know the members contributions to decision making at home and in the SHG, for a *certain SHG* at a *certain time/number of survey* (see chapter 5.4.1 where SHG B at the baseline survey was chosen) you have to set the filters respectively at the chosen SHG and time.



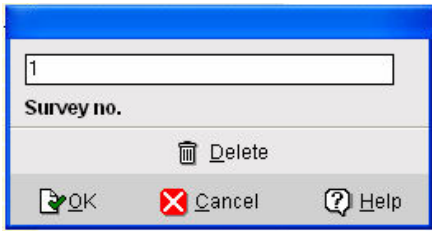
To define or change filters you have to:

- *click in the yellow field beside the desired variable of the table*
- *the dialogue window for filter entry appears with* each different question type having its own dialogue window for entering the filter criteria:

1. Selection- and scale questions:



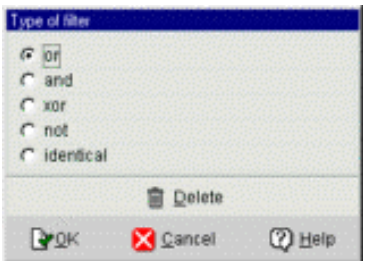
2. Measured scales:



Enter an area in the entry line. For example: **‘1’**

Attention:
→ Filtering measured scales does not provide for excluding selected groups from an analysis, it is only possible to analyse e.g. group “1-5” by setting a filter but not group “1-3, 5”. In case you want to analyse selected groups you have to save the survey under a new name and delete all data/groups not relevant to your analysis. This can be done in the GrafStat Menu: Enter Data; Button: [Basic list/Export] by using the [DELETE] button (see chapter 4.3).

3. Filters with multiple choice questions



Questions with multiple choice responses can include an additional filter type. The filter type defines the logical combination of items as a filter criterion: the supported links are OR, AND, XOR (exclusive or), NOT, IDENTICAL. The filter type dialogue window appears after clicking on the entry in the table. GrafStat uses the OR link as a default.

The filter conditions are met when:
- OR at least one highlighted item applies
- AND at least all the highlighted items apply (there may be more)
- XOR exactly one of the highlighted items applies
- NOT none of the highlighted items apply
- IDENTICAL the item(s) is/are absolute identical with the filter setting

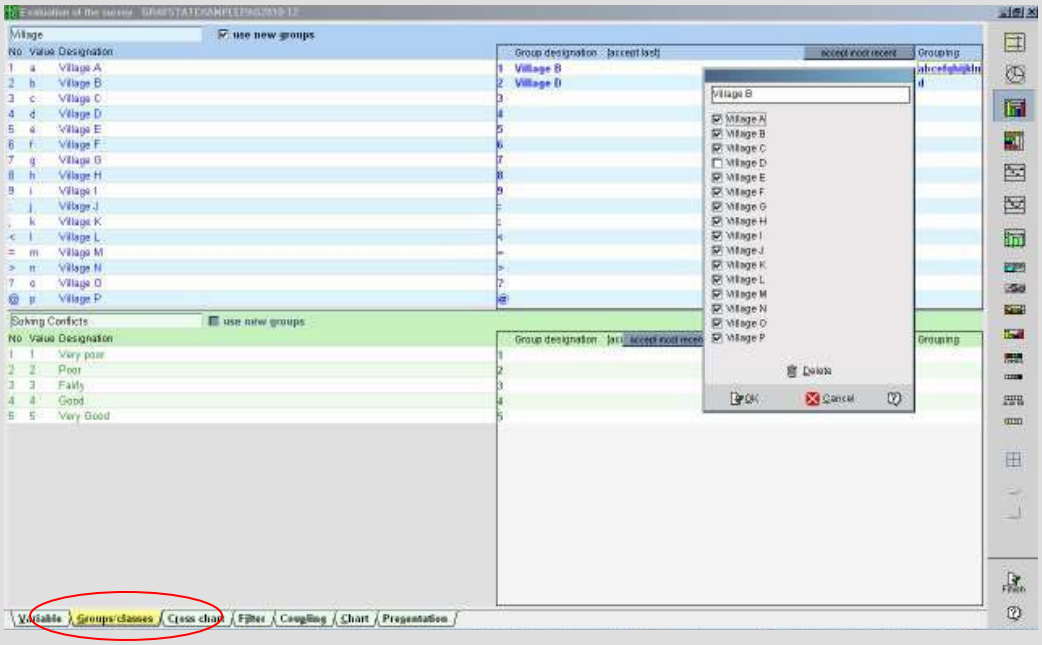
Filters can be used in practically unlimited combinations. To set more then on filter repeate the steps described above.

Filter Proof
For presentation purposes, the filters used in an evaluation will be shown in an abridged form at the bottom of the graphs and will also be printed with the graphs.

FOR ADVANCED USERS

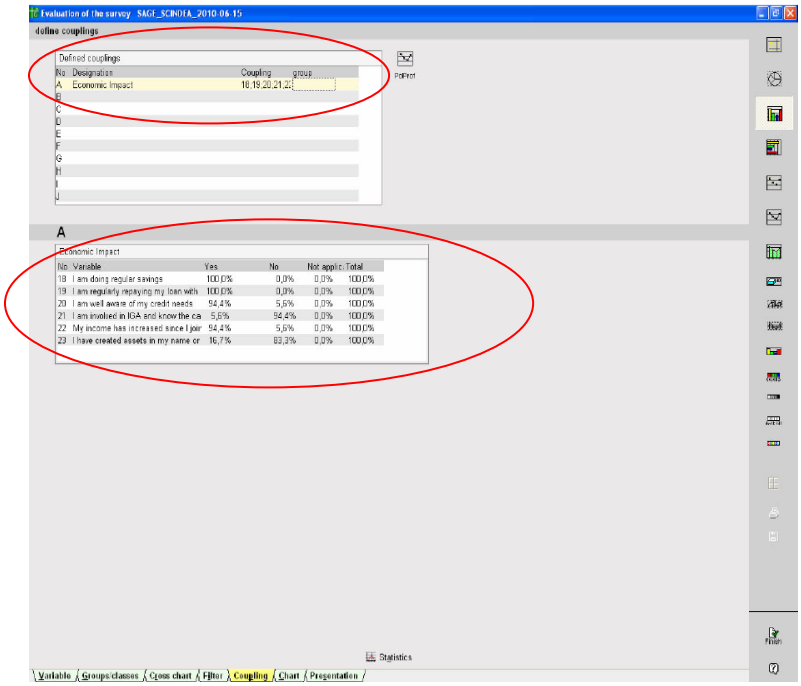
Grouping as a filtering method:

If you wish to filter a variable which is to be graphically displayed, you should work with groupings (see above Index page groups/classes; 5.2.2). Using groupings will exclude the irrelevant items from both the graph and the key. An Example is given on p.49/50 in PAG, where a big number of villages where included in the questionnaire but so far only data for the villages B and D were collected. Also 'place holders' in single choice questions called 'free', without any data could be excluded from the evaluation in this way (see chapter 3.4.1). You just need to attach all of the irrelevant items, with no data collected, to one of the relevant items:



5.2.5 Index page „Coupling“ (Example chapter 5.4.4)

A coupling compilesseveral variables from an evaluation and presents them together in a joint graph.[10] Coupling enables simple visual *comparisons of variables with similar structures*.



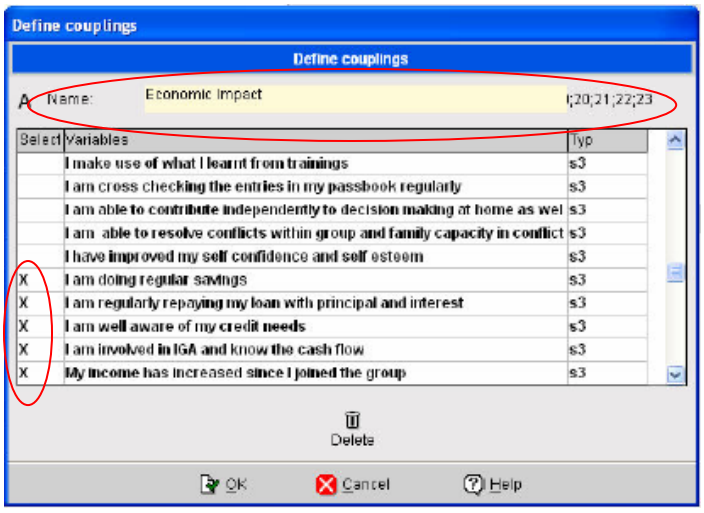
This page shows 2 tables:

- defined couplings
- counts for the selected couplings

The upper table shows all the defined couplings. The couplings are marked by upper case letters. If one of the couplings is selected, the lower table will display the count of this coupling. You can select one by clicking on its line in the upper table. When working with larger surveys and large couplings, it may take a few seconds for the table to be generated, as a complete count must be made for each relevant variable.

How to generate a coupling

- *click in the desired line in the column „defined coupling“*
- *a dialogue window for the compilation of the coupling appears click on the variables which are to be coupled*



- *enter a term to describe the coupling in the entry field „Name“*
- *close the dialogue window with [OK]*

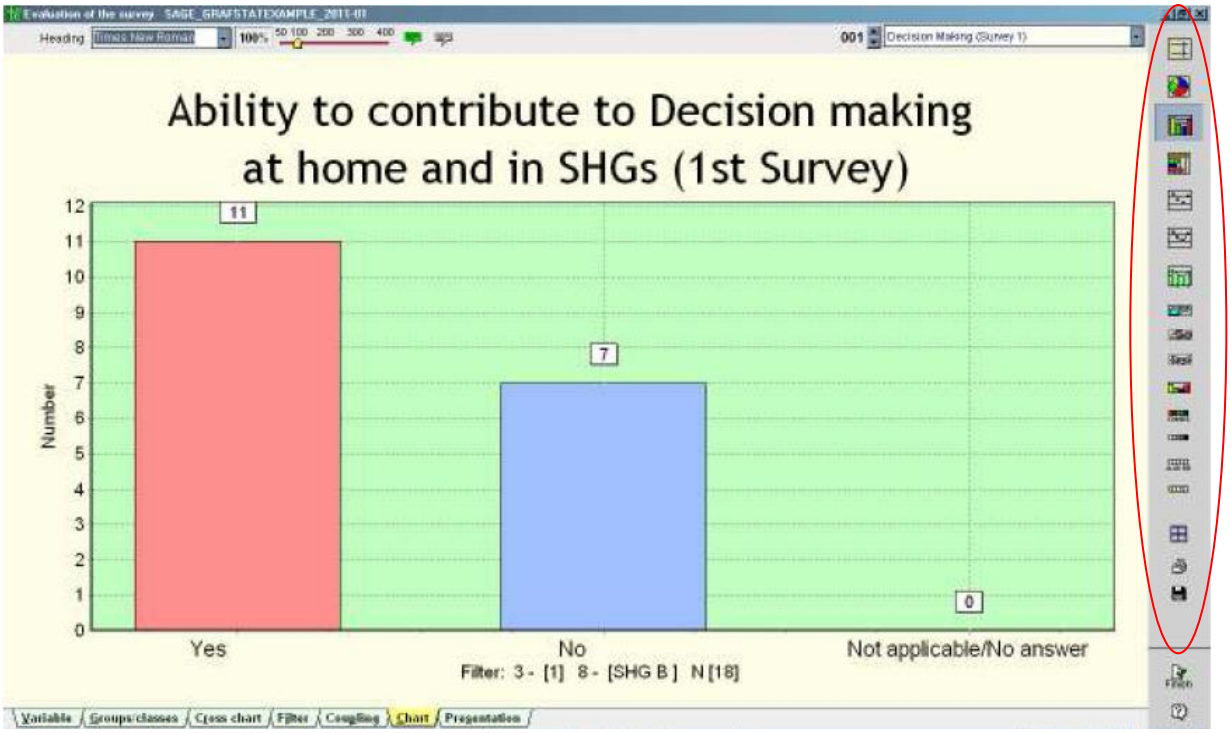
You can use this routine to change or delete present couplings.
As soon as a variable has been selected, only those variables which share structural similarities are displayed with a green background. Only these variables can be coupled.

> ***Attention***:
> → GrafStat's coupling instruments are set up to allow only for the coupling of similar variables, for example 5-point scales or single response questions with 6 response options. Questions having 5-point-scales but different answer values are, however, not being differentiated in the evaluation (see question 12 and 13 of the PAG questionnaire)!

[10] In distinction to coupling *grouping* is about reducing the values of one question/variable by building new groups (see chapter 5.2.2) and *calculated variables* offers the option of calculating new variables from the existing variables (see chapter 6.3).

5.2.6 Index page „Graph”

This index page shows the evaluation graph belonging to the respective variable chosen in the preceding index pages. Below the graph the filters set and sample population [N] included are presented. You can change various characteristics of the graph on this page. Among others, you can modify fonts, colours, scales and labelling texts, as well as changing the graph type as you wish.



Attention:
→ The sample population given below the graph (N [18]) does not differentiate between different survey times. If you compare SHG B with 18 group members in two surveys [N] will be 36, although in real fact it was [N] 18 for survey 1 and survey 2. The text of the explanation can be changed by hand. Just double click on it.

The charting buttons on the right hand side of the evaluation screen can open graphs and adjust the settings for the graphs automatically by clicking on respective graph.

Table diagrams	Display the counted values in a clear and readable format. GrafStat will try to suit font sizes to the available space. You can manually define the font size in certain areas. In an N-Field table you can change both the column and line labels. You just have to double-click in the relevant area of the table diagram.
Pie charts	Are often used to facilitate visual comparisons. The pie charts can also be presented in a 3D format.
Column bar diagram	Are mostly used to compare sizes with each other. The bar chart can be combined with: Cross reference tables combine the lines of the table into groups. Each group depicted in the graph represents a line of the relevant table.
Bar chart	Show the values as horizontal stripes. They can be combined with: Cross reference tables combine the lines of the table into groups. Each group depicted in the graph represents a line of the relevant table.

Dot diagram 	Displays the values as coloured points within the cross of the axis. It can be combined with 3D effects.
Line diagram 	Connects the coloured points of the dot diagram with lines. The line diagram is especially well-suited for displaying trends. It is the best choice when testing hypotheses. It can be combined with:
Area diagram 	Completes the line diagram by filling in the areas beneath the lines with colour. The area diagram does not represent the values themselves; it accentuates the tendencies which were already becoming clear in the line diagram. The kind of area diagram used in GrafStat has, due to the optical effect of the coloured areas, distorting qualities.

FOR ADVANCED USERS

Statistical graphs
When you press [STATISTIC] on the index page variable, at the bottom of the window, then an information window appears which contains information about conditions and additional options.

Beneath the assessment table you will sometimes find statistical measured scales. These supplementary data only appear with measured scale and scale questions.
Conditions for statistical evaluation forms
- 2nd variable is activated
- 2nd variable is a measured scale or a scale
You can recognise the statistic option by its red frame and some of the graph controls.

 *Table diagram with mean values*

 *Column bar diagram with mean values*

 *Profile diagram of the mean values*

 *Line diagram with mean value*

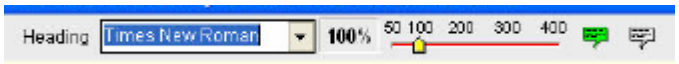
 *Box plot diagram (Quartil and median)*

The graph displays with mean values contain in addition a red line to represent the mean value in relation to all present values. The deviation from the mean value is represented on the diagram by a hatched line.

5.3 Editing Graphs

In the following section, the options available for editing graphs will be explained.

5.3.1 Font Size and Comments



On the left side above the graph you will see a control panel. The first commands in this panel allow you to change the ***font and font size***. These changes only apply to an element that you have previously selected using the mouse. To choose a *font for the heading* you can select a font from the drop-down list. To chose the *font size* of the graph displayed move the indicator.

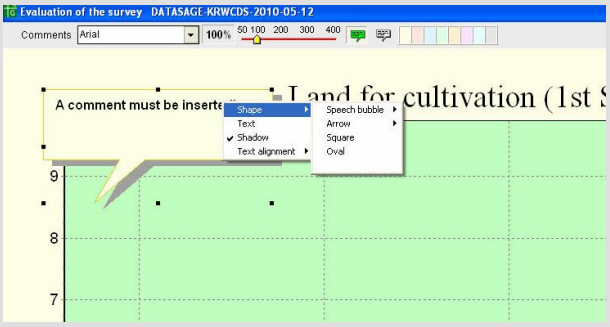
FOR ADVANCED USERS

The next two commands on the control panel  *are for* ***comments****. You could use comments to explain the central statement of the graph, so that the viewer can grasp the material more swiftly. Or if you want to use your survey to test hypotheses or assumptions, the commentary texts are obviously the best place to provide answers. Try to write in short, compact sentences. The length of the comment texts isn't limited, but bear in mind that the comment text speech bubbles take space away from the graph:*

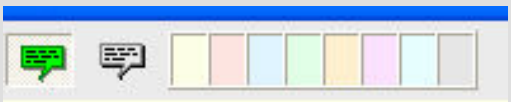
- *Click on the left (green) button and a speech bubble with a hel text appears in the graph.*
- *Double click in the speech bubble and a text input field appears*
- *Now you can type a comment text for the graph in the field*

Enter comments in the graphs. If you don't like the placement of a comment in the graph, you can move it quite easily:

- *Move the mouse cursor in the comment field and a hand appears*
- *Click on the left mouse button and you will be able to drag and drop the comment field*

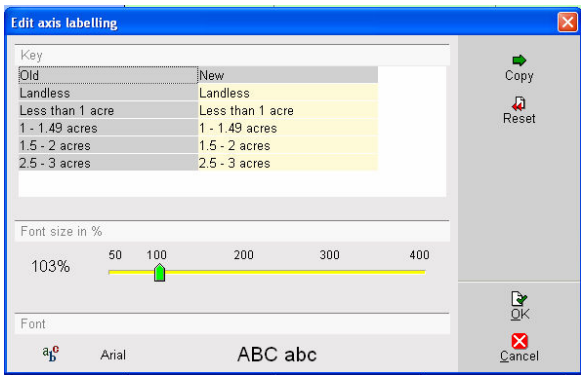


Shape and size of the comment field can also be modified using a hidden (right mouse click on the comment) drop-down menu.



Colours can be selected from a palette in the control panel. Simply select a comment the palette of colours will appear besides the comment button and then click on the chosen colour.

5.3.2 Changing label texts



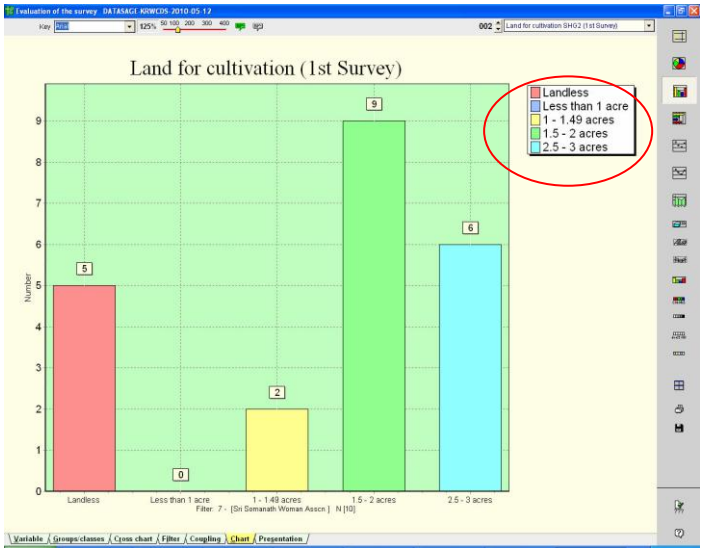
You can change and modify the label texts (heading, axis labels, key) *by double-clicking on the desired label text.*

A dialog window will open
- to reword the texts.
- to select the font and font size.

The changes are only valid for the current evaluation, and they are lost if you do not save the graph settings. GrafStat will insert line breaks for longer axis labels, but even so, it may happen that not all texts can be displayed completely. If changing the font size doesn't lead to a better display, you can insert extra spaces to adjust the line breaks.

5.3.3 Positioning the key

The key of a graph can be positioned anywhere around the graph, it can be also deactivated.



You can move it using the mouse, but only to specific places around the graph:
- set the mouse cursor over the key
- click on the right mouse button
- holding the right mouse button, you can now move the key around, but only outside the graph
- when you release the mouse button, the key will stay where you positioned it

If you don't want a key, you can deactivated/activated it via the context menu (see chapter 5.3.6).

FOR ADVANCED USERS

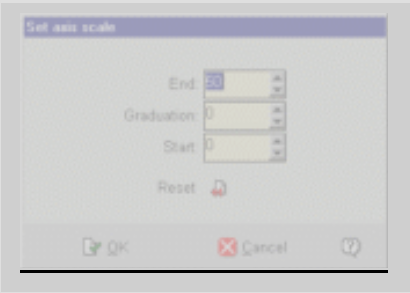
5.3.4 Axis Scales

GrafStat automatically calculates the scaling of the axes to optimise readability. You can also set the axis scales manually, either by using a dialogue window or directly manipulating the graph with the mouse.

1. Changing the scale using the mouse:

- *move the mouse cursor left alongside the Y axis*
- *when the mouse cursor takes this form , click the left mouse button and hold - the cursor changes form*
- *now, holding the left mouse button, you can adjust the scaling by pulling with the mouse*
- *release the mouse button once the scale is in the correct place*

2. Changing the scale using the dialog window:



- *When the mouse cursor is near to the values on the axis it will take this form . By double clicking on it a dialog window will open*
- *This allows you to adjust the scale settings - End, Graduation and Starting point of the scale values.*
- *Click [ok] and the axis scale will change accordingly*
- *A click on the button [Reset] will re-establish the default scale settings.*

5.3.5 Colouring the graphs

GrafStat has different options for colouring the graphs with default selections, but this can be modified.

You will find a button for colour selection on the control panel to the right. :

- *click once on the button and a palette appears above the graph*

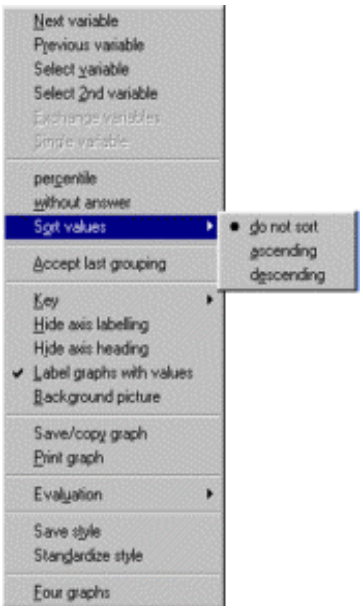
- *place the mouse cursor on the desired colour and make a left click with the mouse*
- *drag the mouse cursor (keeping the left button pressed) and*
- *drop the cursor (by letting do of the left button) in the column which should take over the chosen colour*

This way, you can change the colours of not only the columns, but other areas of the graph as well.

In the same way you could use the shading button , grey level button or the button for no filling to change the look of the graph.

Beware:
→ On black and white printers, all colours are represented with grey tones. The toning is hard to predict. Using the button (grey tones) you can assign grey tones on-screen.
When you print the graphs and want to colour them by hand, then select the button and the graph will appear without background colouring

5.3.6 Context menu



The 'index page chart' contains a context menu which you can open with a right mouse click in the graph. There are some settings here for which you would normally have to change the index page, but which you can directly access here using the context menu (for example, selection of a variable, percentile or absolute evaluation, exchange of variables in cross reference tables). The context menu adapts itself to the current settings.

Next variable	Adjusts the next variable, calculates it and displays the graph.
Previous variable	Adjusts the previous variable, counts and displays the graph
Select variable	Displays the list of variables. You can select a variable and GrafStat counts it and displays the graph.
Select variable B	Brings in a second variable and displays the variables list to the right. You can select, GrafStat then counts and displays the graph.

Exchange variables	This option is only active when two variables are being used. Then this menu option allows the first and second variable to be exchanged. This exchange is sometimes necessary.
Only 1 variable	This is only active when two variables are being used. It switches off the second variable.
Percentile/absolute	Switches between percentile and absolute counting.
No answer	De/activates the option which displays how often no answer was given as a response to the variable.
Sort values	GrafStat always displays the values in a graph in the sequence in which they were compiled in the questionnaire, or arranged when grouping. You can use this command to sort the values in ascending or descending order.
Save evaluation	Opens the dialogue window to save the evaluation settings. This menu option should be used for every evaluation which you wish to use or view again at a later date, or which is to be used as part of a presentation
Open evaluation	This menu option allows you to select an evaluation together with its saved settings.
Print graph	Opens the print preview with the settings for printing the graph.
Show/hide key	The key can be placed at various positions around the graph. If you push it beyond the right hand border, the graph will be generated without a key. This menu option is the only way to reinstall the key visibly on the graph.
Show/hide axis labelling	Using this menu option you can show or hide the labelling on the X-axis. This can be useful if the key allows for an assignment.
Show/hide axis heading	The axis heading on the X-axis can be shown or hidden.
Label graph with values	In the default setting, GrafStat labels the graphs with the relevant values. This labelling can be de/activated using this menu option.
Save/copy graph	Opens the required dialogue window.

FOR ADVANCED USERS

Groups on/off	*Switches groups settings on/off.*
Accept last grouping	*If you are working with groupings, this menu option will save you a lot of work. The only prerequisite is that you have already generated a grouping using a similar variable. In this case GrafStat will accept the grouping with its settings for the current variable. GrafStat searches in the previous variables and takes the next one with a similar structure as a template*
Copy chart (immediate)	*Copies actual chart to clipboard, using settings of last save/copy graph action.*
Background image	*A graph can be generated with a background image. This menu option de/activates the background image and opens a dialogue window to assist in selecting an image.*
Save style	*You can use this menu option to separately save the current style attributes (colour and font). The saved settings will be then used as a template for later graphs. The next time you evaluate a survey, this style template will be used to generate the graphs.*
Unify style	*When you save your evaluations, then at times you may change the colours or fonts. Your saved evaluations may then differ in appearance and style, giving a disorderly impression. This menu option unifies the style attributes for the evaluations. GrafStat shows a dialogue window in which you can define the details of the style attributes you want to be unified*
Four graphs	*This option switches to the presentation of four graphs in evaluation windows.*

Attention:
→ It may happen that after repeated use of certain menu options the evaluation doesn't work according to your settings. If this happens, close the evaluation using [FINISH] and re-open it.

5.3.7 Display four evaluation graphs simultaneously

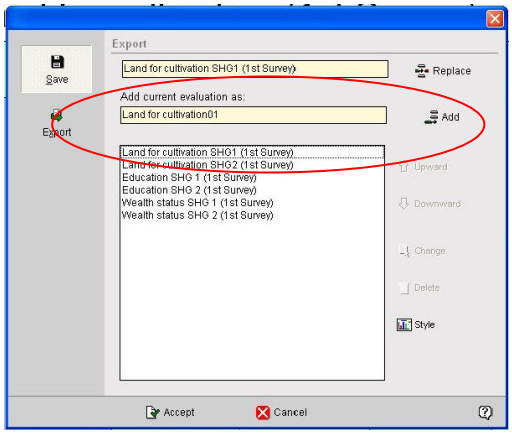
If you click on  on the right side of the 'index page chart', GrafStat will display four windows, each containing an evaluation. At first, only the upper left field will display a graph. When you click in one of the other fields, however, the current evaluation will be displayed, and that window becomes active (to be seen in the blue border at the top). You can now use this window to adjust and modify the design of the graphs, select another graph type, or select another variable. If you want to work on another graph, simply click in the window and it will become the active window.

The four-window display is very useful for comparative analysis of your evaluations. If you want to return to the standard single window mode, click again on the button and the current evaluation in the active window will be displayed in one window.

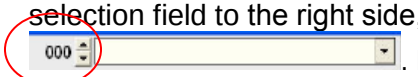
Beware:
→ The four evaluation graph cannot be saved!

5.3.8 Saving the graph

When you have made all the adjustments you want to the graph, you should save it. The best way to save your evaluation is to save the settings. In this way the graph can be reopened and edited at any time. In addition, some supplementary programs (GrafShow, GrafMat, GrafTeam ...) which are installed with GrafStat work with the saved evaluation settings.



- Click on the button save to the right of the 'index page chart' and a dialog window will open
- Give the graph a name and then click on [Add] and then [Accept] and it will be saved.

If you have several graphs you can leaf through the collection by clicking on the arrow buttons in the selection field to the right side, top of the 'index page chart' 

. If you click the button upwards it will change to the saved graphs.

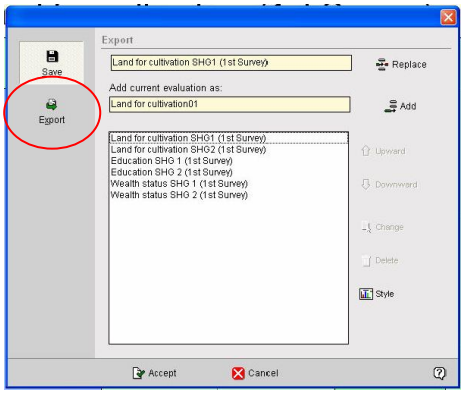
> ***Attention:***
> → Save each new graph and its evaluation settings. The button with the disk symbol is among the most important controls at your disposal when you are documenting your work!
> Before saving for the first time, select the colour scheme you wish to use for the graphic elements of your evaluations. If you do this first, you can ensure that your graphs and displays have a unified and coherent appearance. If the displays and graphs are to have new elements introduced later (columns, pie segments etc.), then these additions can also be saved in your chosen colour scheme. GrafStat includes a comfortable method of ensuring a coherent and unified style and appearance – in the context menu in the graphs window you will find the option' Unify style'.

5.3.9 Exporting graphs

You can export the graphs or tables in a selected file type and use this for presentations, etc.:

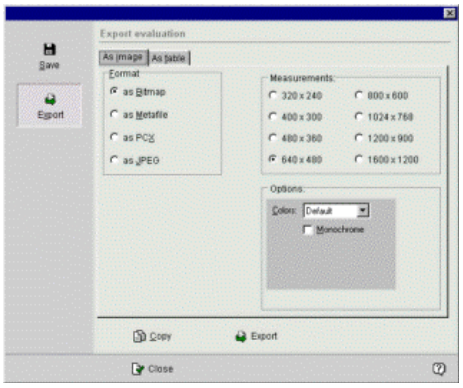
- Click on the button save to the right of the 'index page chart' and a dialog window will open, as described above.
- On the left side to this window you will find an export button. If you click on it, another window will open:

Now you can choose among the index pages exporting as 'graph' or as 'table':



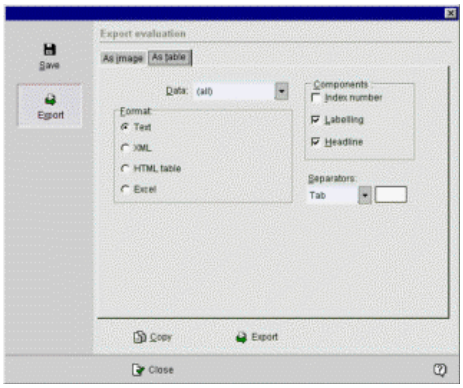
> **Attention:**
> → Before exporting a graph, make sure that the colours chosen are strong and the text of the axis labels, key, etc. is big enough to be clear in a picture or word document.

Export as a graph
You can export the data as a graph, for example, when you wish to include the graph in a text.
When working with graphs you can:
- select from the file types Metafile (EMF), JPG, BMP or GIF,
- make adjustments to the screen size settings, and copy the graph directly onto the clipboard.

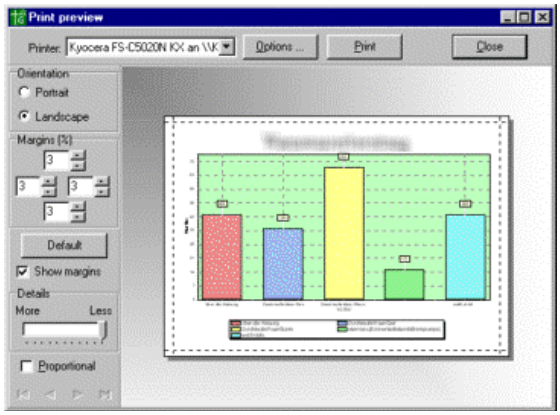


Export as a table
You can use the export as a table function when you wish to include the evaluation data in a text, or to create graphs which GrafStat is unable to generate.

- GrafStat supports these tabular formats: Text, XML, HTML or Excel.



5.3.10 Printing the graph



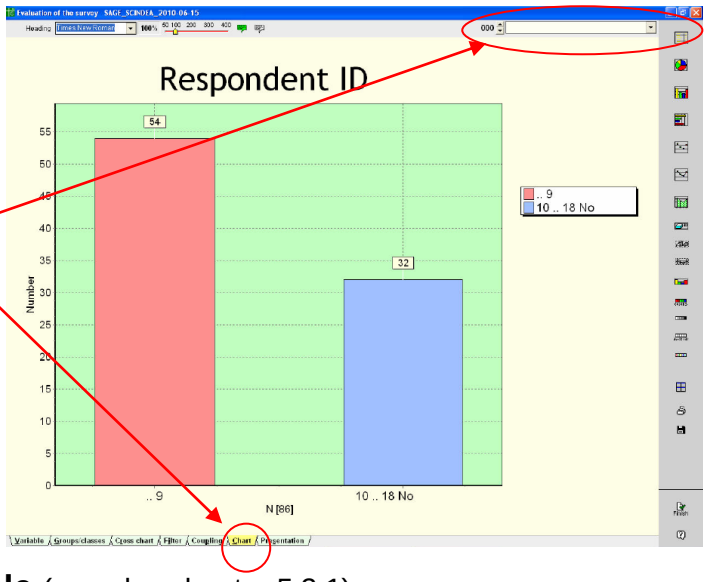
The button  on the right side of the ‘index page chart’ opens a special printer dialogue window.
You can make all the necessary graph printing settings here:
- select a printer and make settings
- select portrait or landscape format
- set frames
- adjust resolution (relation font/graph)

5.4 Charting (detailed Analysis) SAGE and PAG Examples

In this chapter we demonstrate how a simple analysis of single variable, cross charts, groups and coupling is being done for the example questionnaire SAGE with some examples also referring to the PAG questionnaire (see also chapter 3.4 and Annex II). To follow the instructions given below you need to open the SAGE/PAG GrafStat file and select **in menu: Questionnaire; Button: [Charting].**

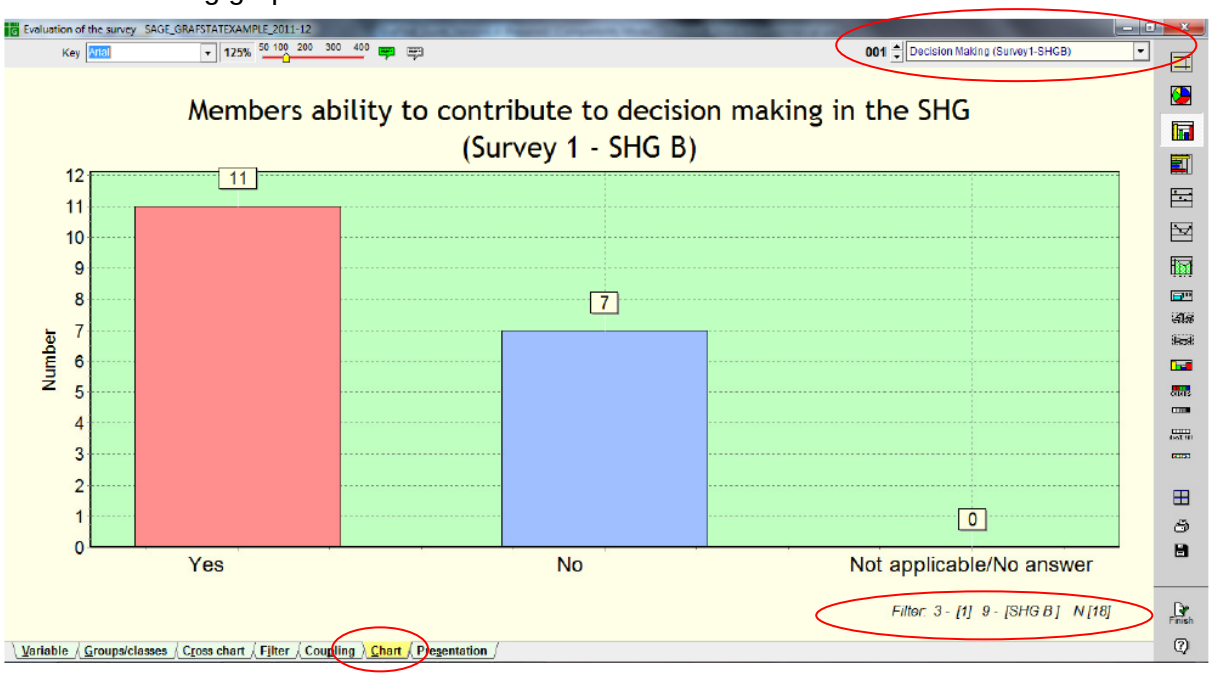
To see what we have done you have to click on the index page 'Chart', as the examples have been saved on this page. When opening the index page 'Chart' it should display the graph shown to the right:

Next you have to *click on the arrow buttons* in the selection field to the right side, top of the page.
If you click the button upwards it will change to the saved graphs.



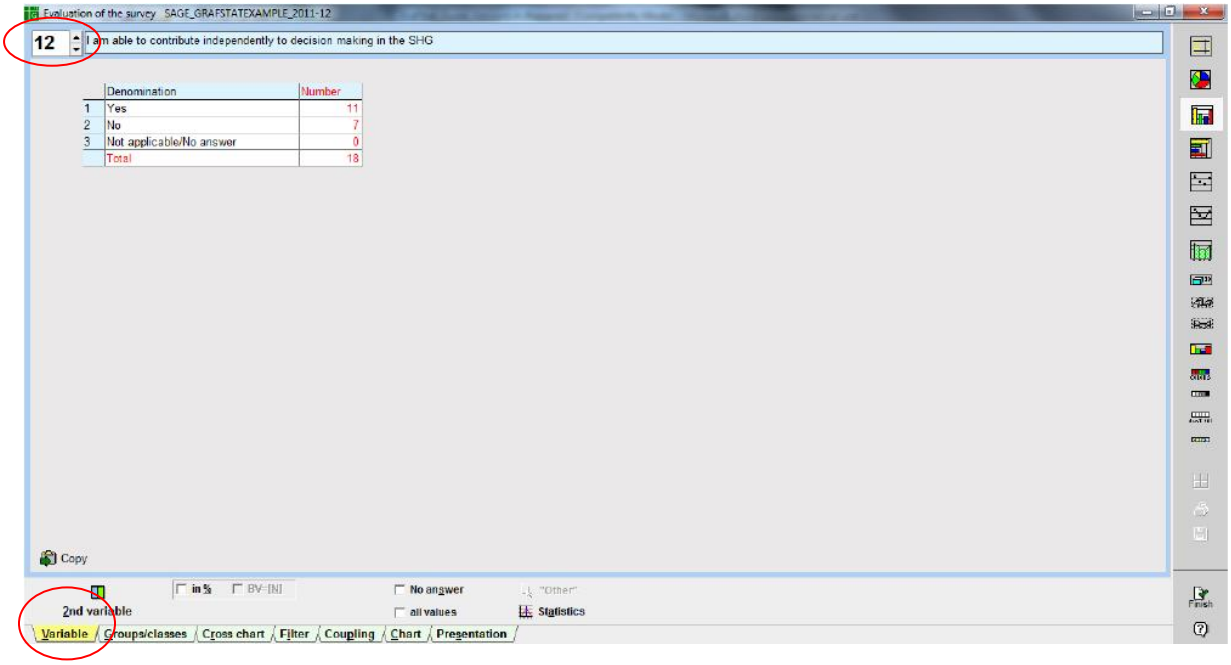
5.4.1 Analysis of a single Variable (see also chapter 5.2.1)

If you go to *graph no 001 "Decision Making (Survey 1 - SHGB)"* of the SAGE files you will see the following graph:

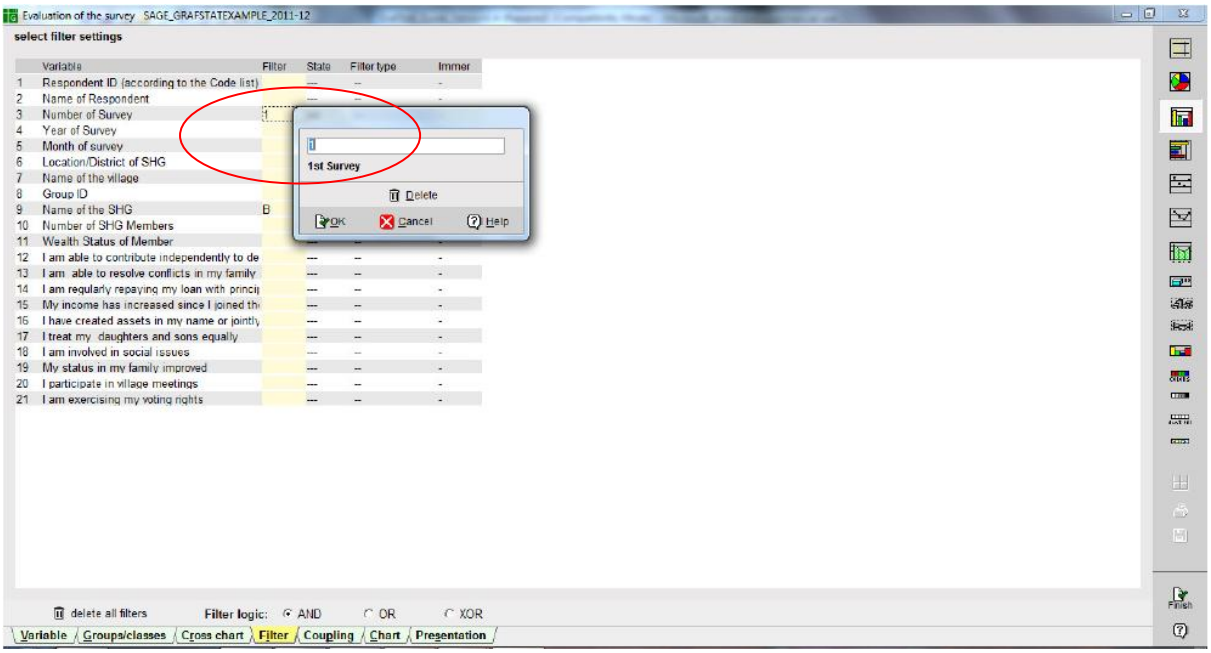


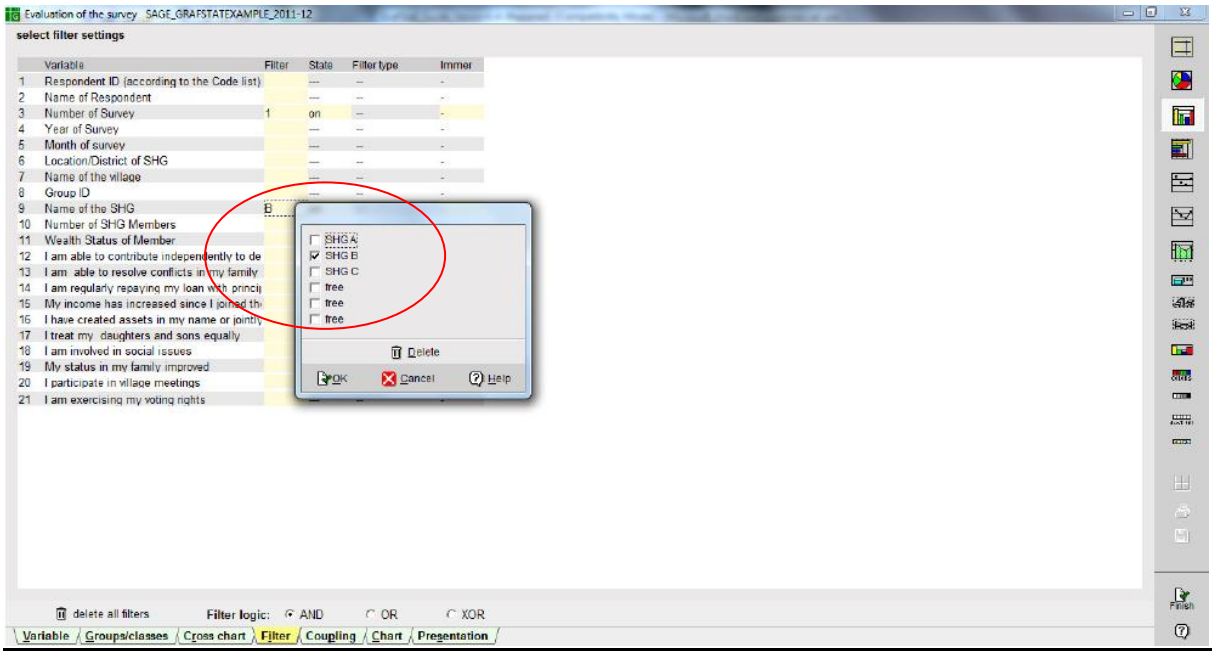
The graph is showing the analysis of variable no.12, for the second SHG. If you go to the index page 'Variable' you'll see that we have chosen variable no.12 and in addition to that on the index page 'Filter', we set the Filter: Survey No = 1, SHG Name = B, to create this graph:

Index Page 'Variable' (see also chapter 5.2.1)



Index Page 'Filter' (see also chapter 5.2.4)

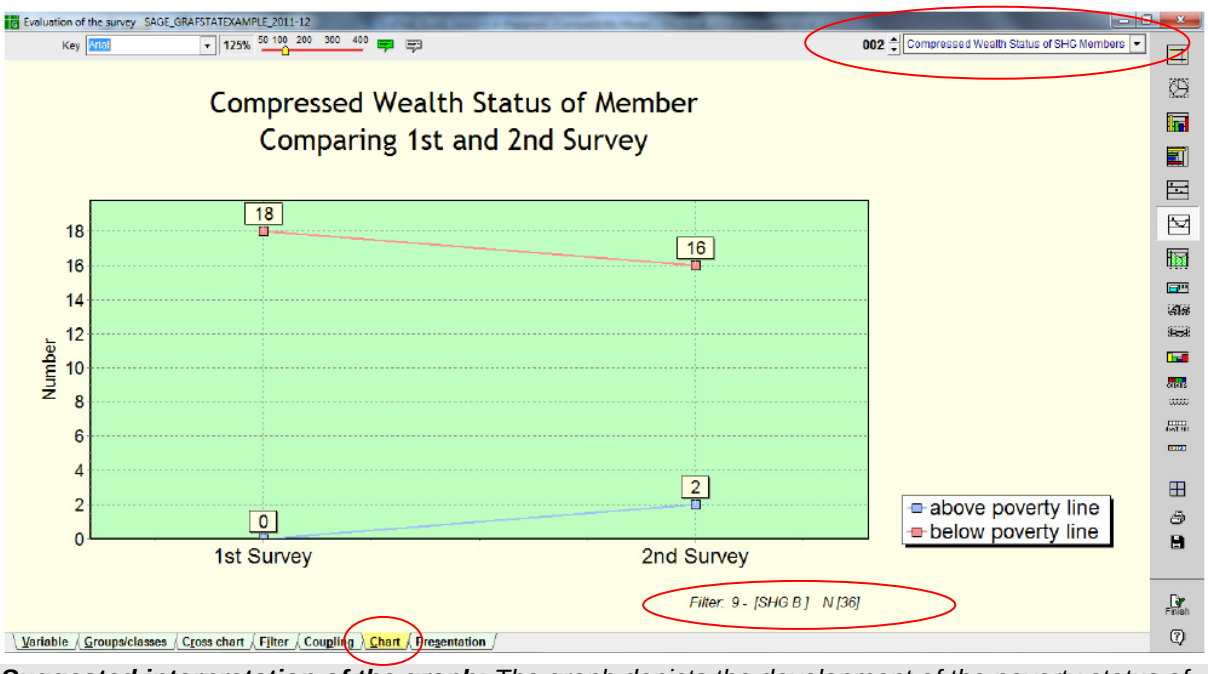




The same steps apply if you would like to evaluate a single variable within PAG. However, this we haven't done in the PAG example.

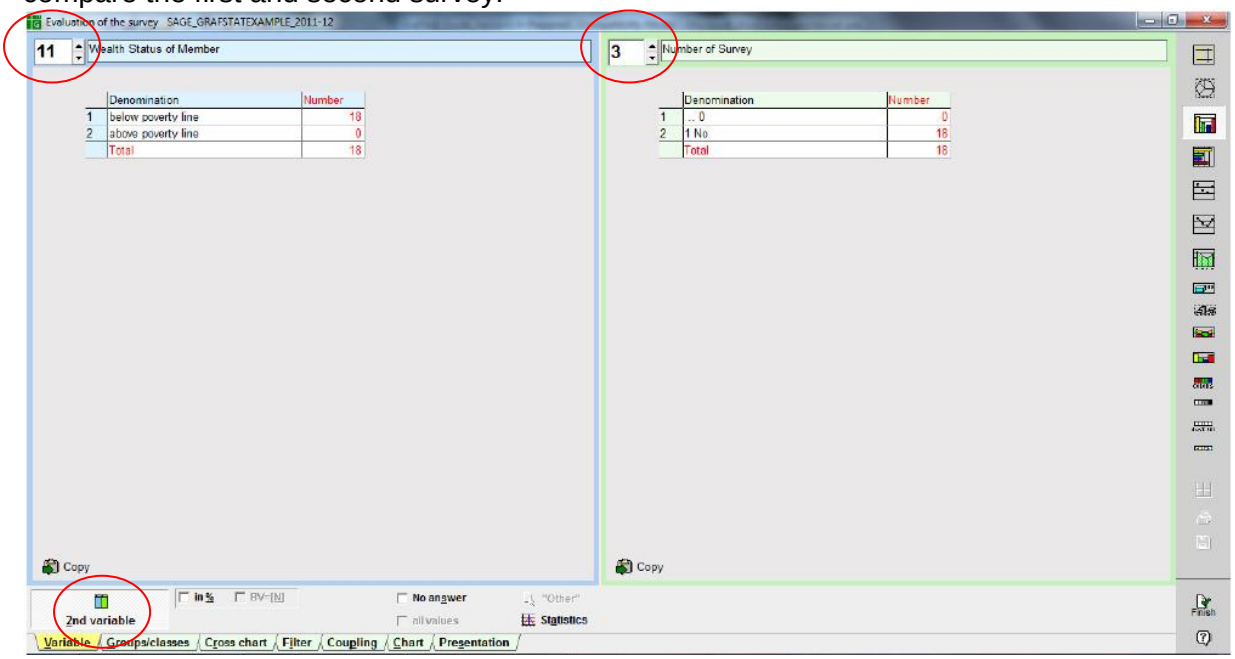
5.4.2 Building Groups (see also chapter 5.2.2)

If you go to the index page 'Charts' again, clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 2 "Compressed Wealth Status of SHG Members (SHG b)"*. You will find another graph displaying the number of members of SHG B who are below and above the poverty line, comparing the changes between the first and second survey:

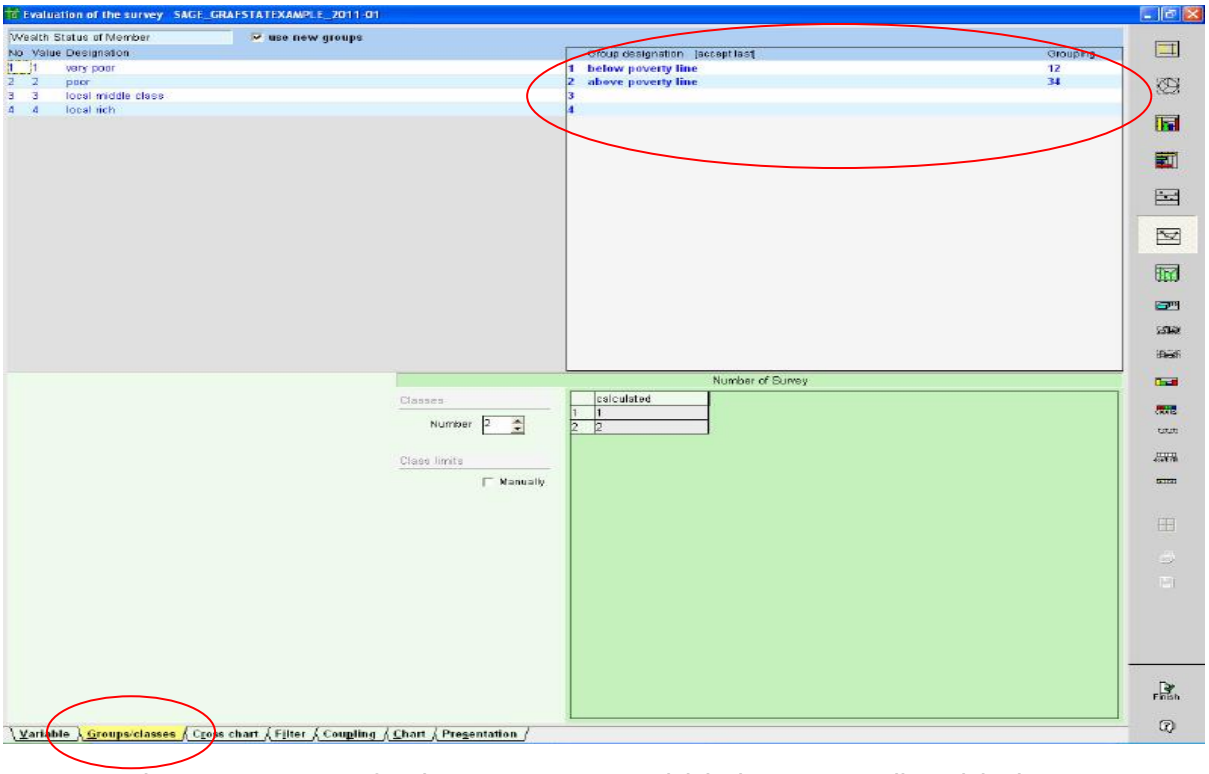


Suggested interpretation of the graph: *The graph depicts the development of the poverty status of SHG members over time. Whereas at the first survey none of the members status was above the poverty line, at the second survey a clear improvement of poverty status of two members can be seen.*

To see how we came up with this graph you need to go back again to the index page 'Variable'. There you'll see we chose the variable no 11 and as second variable no. 3 to compare the first and second survey:



In a next step we set the filter (go to index page 'Filter') as described above (see 5.4.1 SHG-Name = B) and then went to the index page 'groups/classes' to set the group:

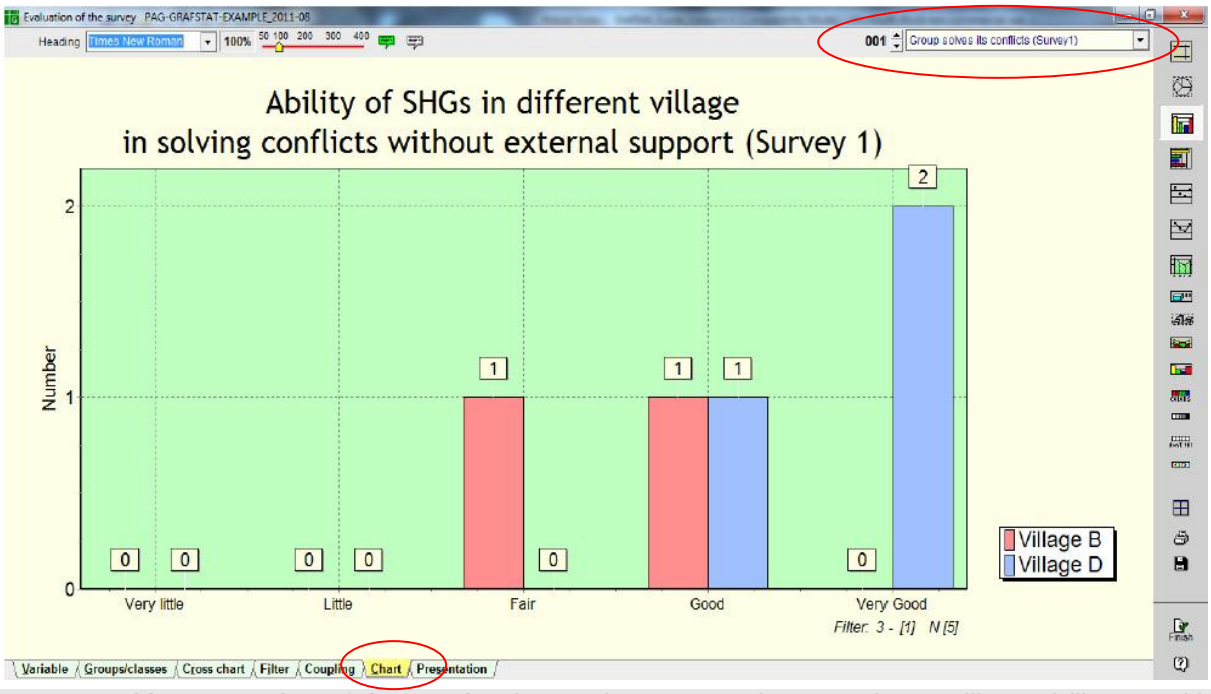


We created two new groups for the poverty status: (1) below poverty line, (2) above poverty line as described in 5.2.2.

Attention

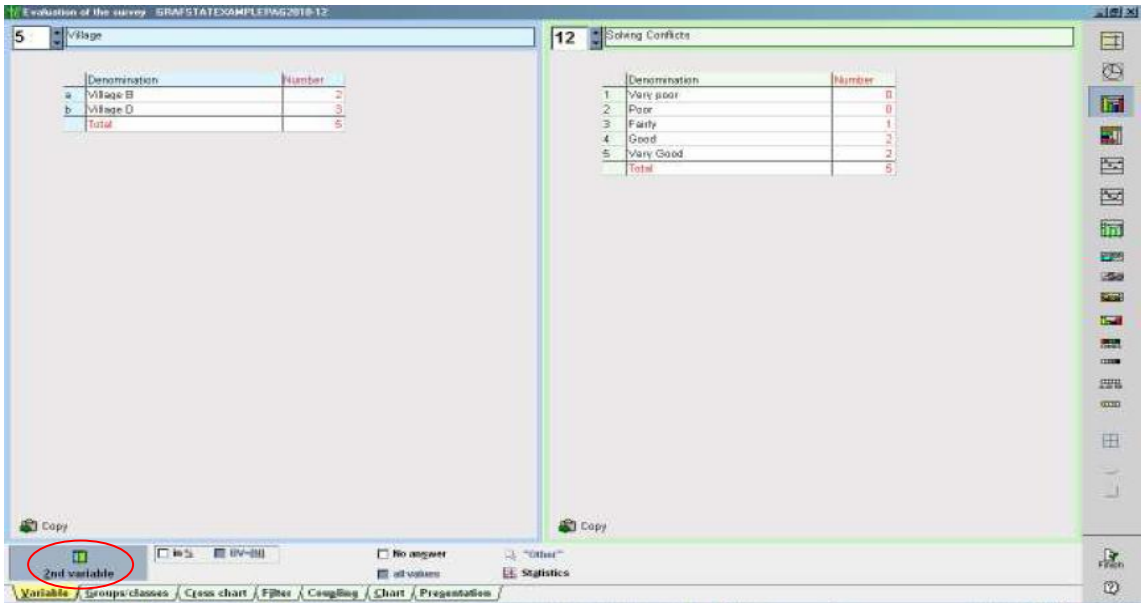
→ It does not always make sense to differentiate the data of the poverty status in just two groups. If there are not enough members above the poverty line it is advisable to use the four categories – "very poor, poor, local middle class, local rich" in the graph (see SAGE Example, in menu: Evaluate and Present Data; Button: [Charting], Graph no 6).

Following the ***PAG example*** you also need to go to the index page 'Charts', clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 1 Solving Conflicts without external help (Survey 1)*. You will find a graph comparing the ability of the SHGs in different villages to solve conflicts without external help. Graph no. 1 displaying the result of the first survey and graph no. 2 for the second survey:



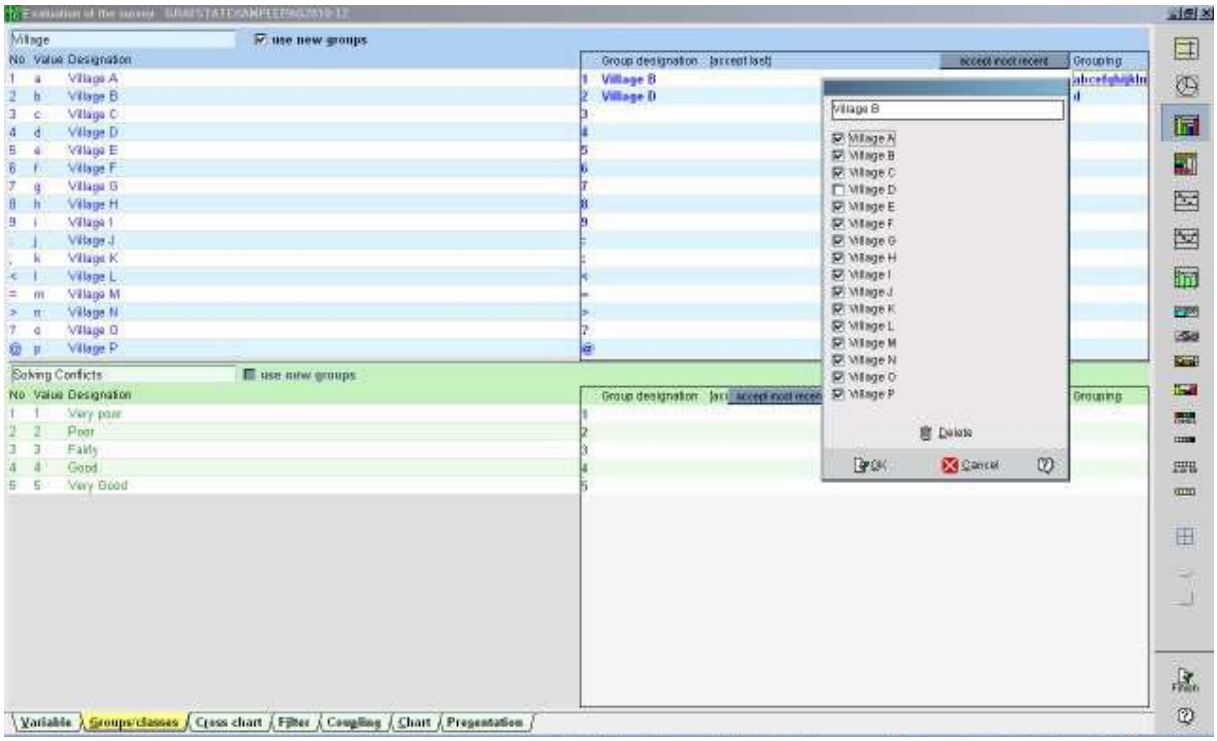
Suggested interpretation of the graph: *The graph compares the SHGs in two villages (village B with 2 SHGs; village D with three SHGs) and the ability of SHGs to solve conflicts without external help at the base line survey. Whereas the SHGs in Village B judge their ability to solve conflicts as being fair and good, SHGs in village D judge their ability to solve conflicts as ranging from good to very good. Two of the SHGs in village D belief their ability to solve conflicts is very good.*

To see how we came up with this graph you need to go back again to the index page 'Variable', there you'll see we chose the variable no 5 and as second variable no. 12 to compare the SHGs of respective villages:



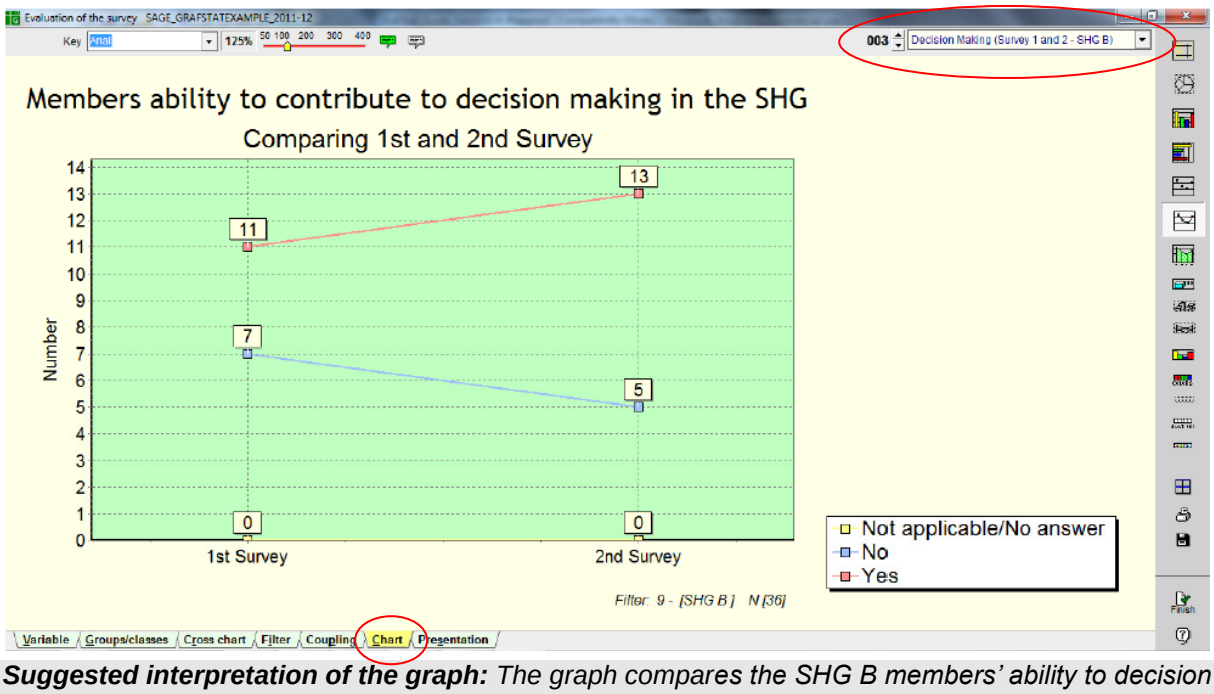
In a next step we set the filter to survey no1 for graph no. 1 and survey no 2 for graph no. 2 (go to index page 'Filter') as described above and then went to the index page 'groups/ classes' to set the group. As we have only data for the villages B and D we included all the

other villages in village B such that the graph doesn't display all the villages. This way we have used grouping as a filtering method, excluding irrelevant items, also described in chapter 5.2.4.



5.4.3 Cross charts (see also chapter 5.2.3)

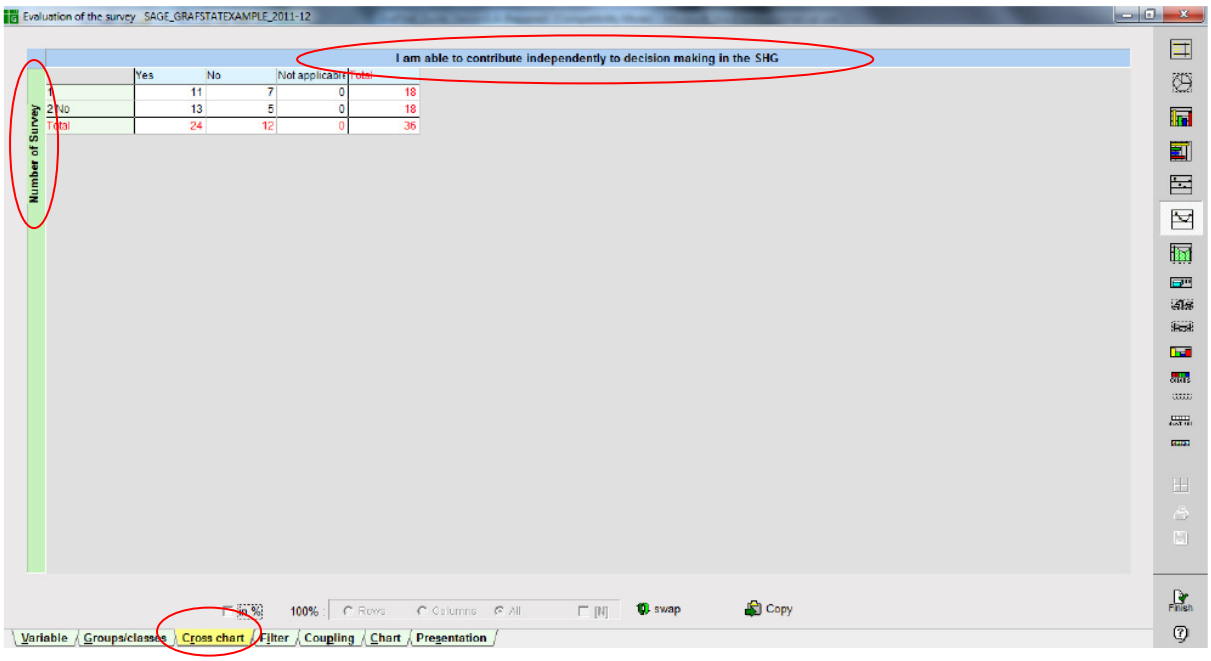
If you go to the index page 'Charts' of SAGE again, clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 3 Decision Making (Survey 1 and 2 – SHG B)* you will find another graph displaying the number of members of SHG B who are contributing to decision making at the first and second survey:



Suggested interpretation of the graph: *The graph compares the SHG B members' ability to decision making in the SHG, at first and second survey. Whereas 7 of the 18 members of the group state, in the first survey, they are not able to contribute to decision making, 11members belief they are able to do so. In the second survey this appraisal changes slightly to the positive as now 13 members of the group belief they are able to contribute to decision making in the group.*

To see how we came up with this graph you have to go back again to the ***index page 'Variable',*** there you'll see we chose the variable no 3 and 12 (see above 5.4.2). In a next step we set the filter (go to index page 'Filter') as described above, for the SHG-Name = B.

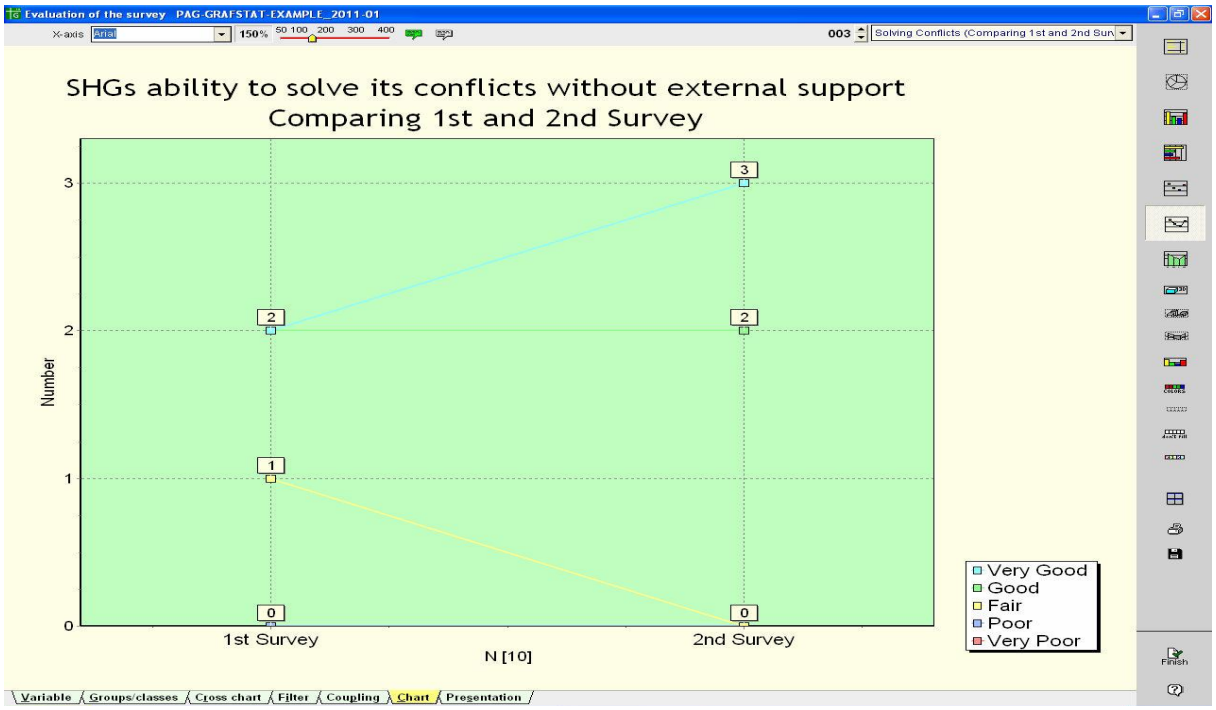
If you go to ***the index page 'cross charts'*** you'll see the table comparing the results of the two survey times:



Now you can display the table as a graph, like we did (see above).
When using cross charts, the *Table Diagram* is usually the best choice. Together with a percentile display, this gives you the basis for an investigative statistical procedure.

Using *Line Diagrams* (as we did) allows you to see trends more clearly.

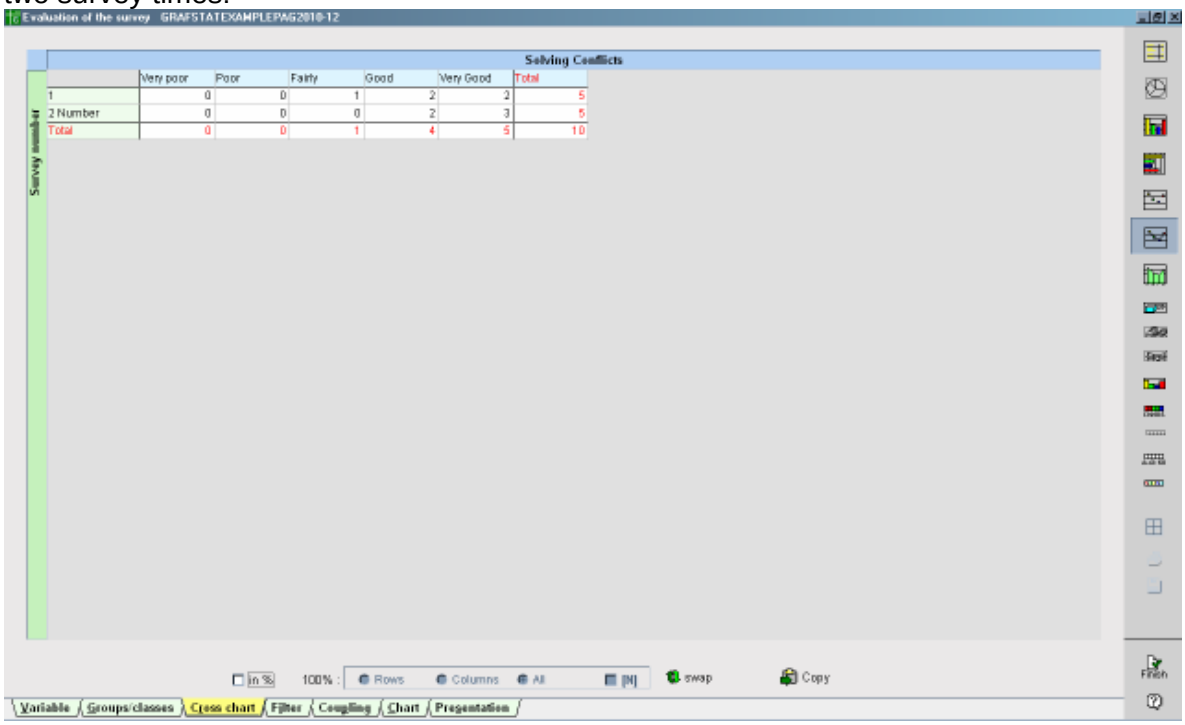
Following the ***PAG example*** you also need to go to the index page 'Charts', clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 3 Solving Conflicts (Comparing 1st and 2nd Survey)*. You will find a graph comparing the ability of the SHG to solve conflicts without external support for the first and second survey:



Suggested interpretation of the graph: *The graph compares the SHGs ability to solve conflicts without external help, first and second survey. Whereas 1 of the 5 SHGs beliefs it is fairly able to solve conflicts, at the first survey, two belief their ability to solve conflicts is good and two very good. In the second survey a slight improvement can be seen. All groups belief they are either good (2 SHGs) or very good (3 SHGs) in solving conflicts.*

To see how we came up with this graph you have to go back again to the ***index page 'Variable',*** there you'll see we chose the variable no 1 and 10 (see above 5.4.2).

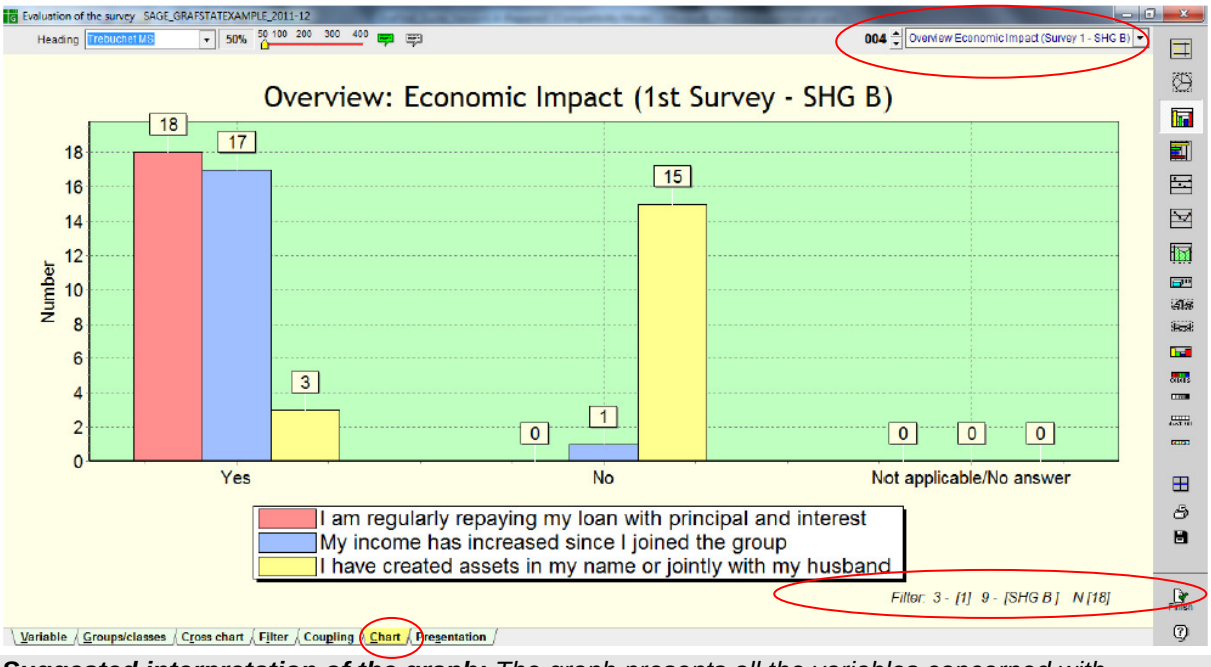
If you go to ***the index page 'cross charts'*** you'll see the table comparing the results of the two survey times:



	Very poor	Poor	Fairly	Good	Very Good	Total
1	0	0	1	2	2	5
2 Number	0	0	0	2	3	5
Total	0	0	1	4	5	10

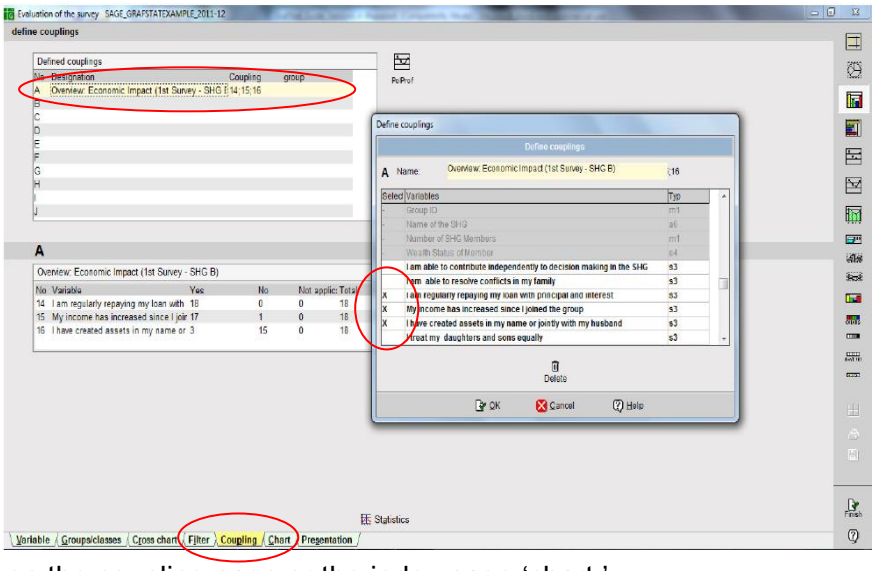
5.4.4 Coupling (see also chapter 5.2.5)

If you go to SAGE index page 'Charts' again, clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 4 "Economic Impact (Survey1 - SHG B)"*. You will find another graph displaying all the results of the variables concerned with economic impact - first survey, SHG B.[11]



Suggested interpretation of the graph: *The graph presents all the variables concerned with Economic Impact, for the SHG B, first survey, in one graph. It depicts that all SHG members are able to repay their loan with principal and interest, displays that nearly all members (17 of the 18 members) increased their income since they joined the group, but only 3 of the 18 members were able to create assets in their name or with their husbands.*

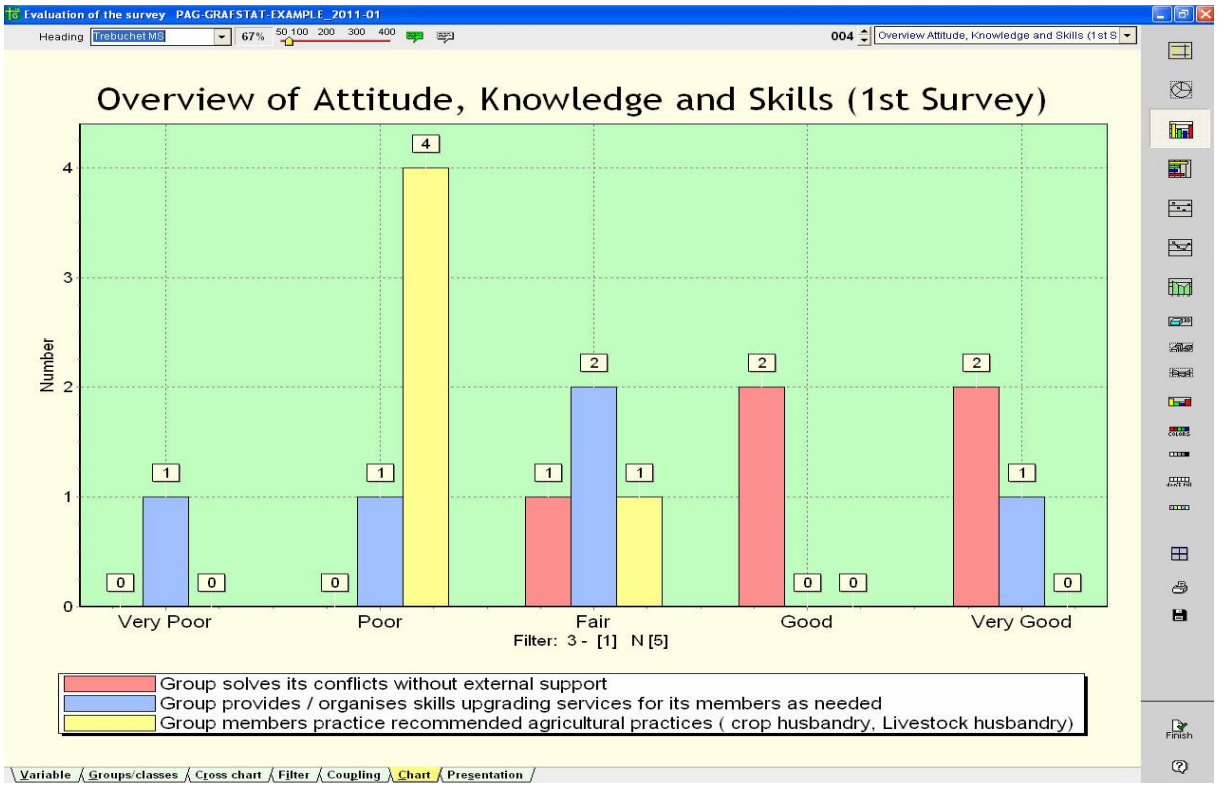
Again we chose on the index page 'Filter', Survey No = 1, SHG Name = B, to create this graph. To see how we came up with this graph you have to go to the index page 'Coupling'. We coupled the 'economic impact' by selecting all variables belonging to it:



Now you can display the coupling as graph (see above) by selecting a graph type from the 'charting buttons' on the coupling page or the index page 'chart.'

[11] Remember: Whereas *grouping* is about reducing the values of one question/variable by building new groups, *coupling* compiles several variables from an evaluation and presents them together in a joint graph (see chapter 5.2.5) and *calculated variables* offers the option of calculating new variables from the existing variables (see chapter 6.3).

Following the ***PAG example*** you also need to go to the index page 'Charts', clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 4 Overview Attitude, Knowledge and Skills (1st Survey)* (graph no 5 displays the results for the second survey). You will find a graph displaying the results of the variables concerned with Attitude, knowledge and skills - first survey- for all the groups:



Suggested interpretation of the graph: *The graph presents all the variables concerned with Attitude, Knowedge and Skills Development, for the 5 SHGs, first survey, in one graph. Whereas most of the groups agree that members are poor in practicing recommended agricultural practices, the groups belief they are rather good (2 groups) or even very good (2 groups) in solving conflicts without external support. The range of the groups' provision of skills upgrading of members according to needs has in comparison to this a very wide range, from very poor to very good. Majority of groups sees there ability as fair, one group as poor and another as very poor.*

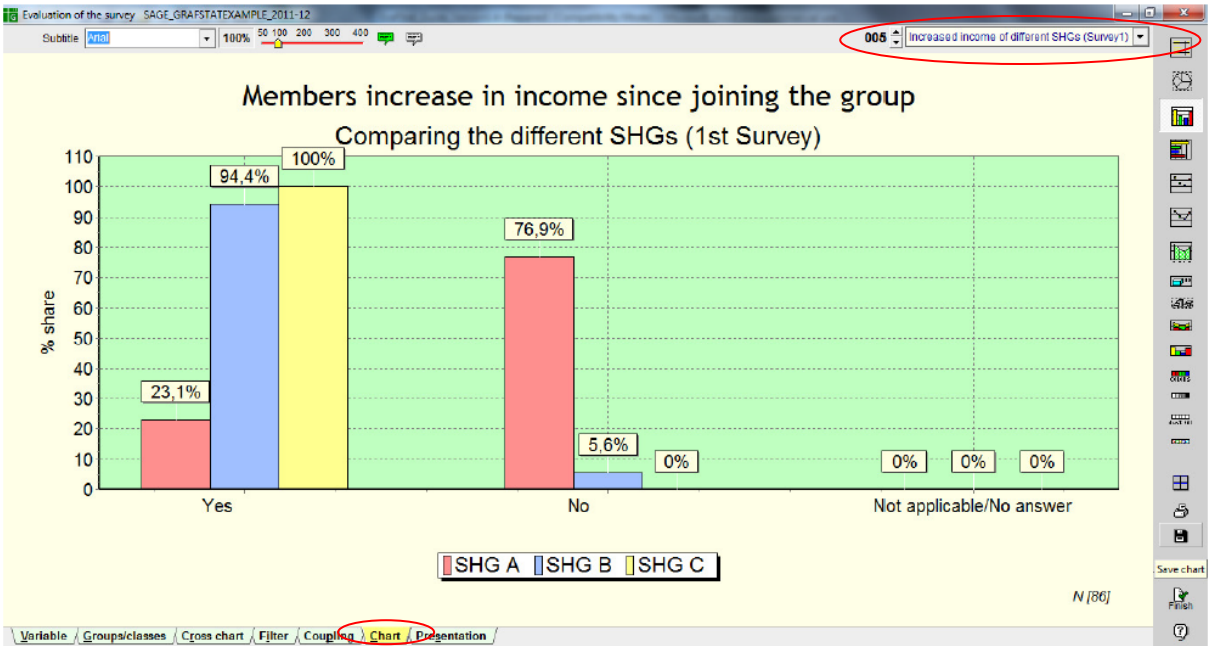
We chose on the index page 'Filter', Survey No = 1 to create this graph. To see how we came up with this graph you have to go to the index page 'Coupling'. We coupled the 'economic impact' by selecting all variables belonging to it (see chapter 5.2.5)

Remember, GrafStat's coupling instrument allows for the coupling of similar variables, for with the same number of responses, only (see chapter 5.2.5).

5.4.5 Comparing assessments of different SHGs or variables for a particular indicator

A simple way to compare different SHGs is by choosing a variable in the index page 'variable', set the filter to the respective SHG and the chosen time of survey and save it as graph in the index page 'chart'. After having done this for each of the SHGs you can compare them by clicking on the button "4 charts" - index page 'charts' as described in chapter 5.3.7. However, the "4 charts" cannot be saved. If you want to compare graphs with each other and use them for reports etc. it is advisable to export the respective graphs to jpeg, bitmap, etc. (chapter 5.3.9) and import them to e.g. Word or Power Point.

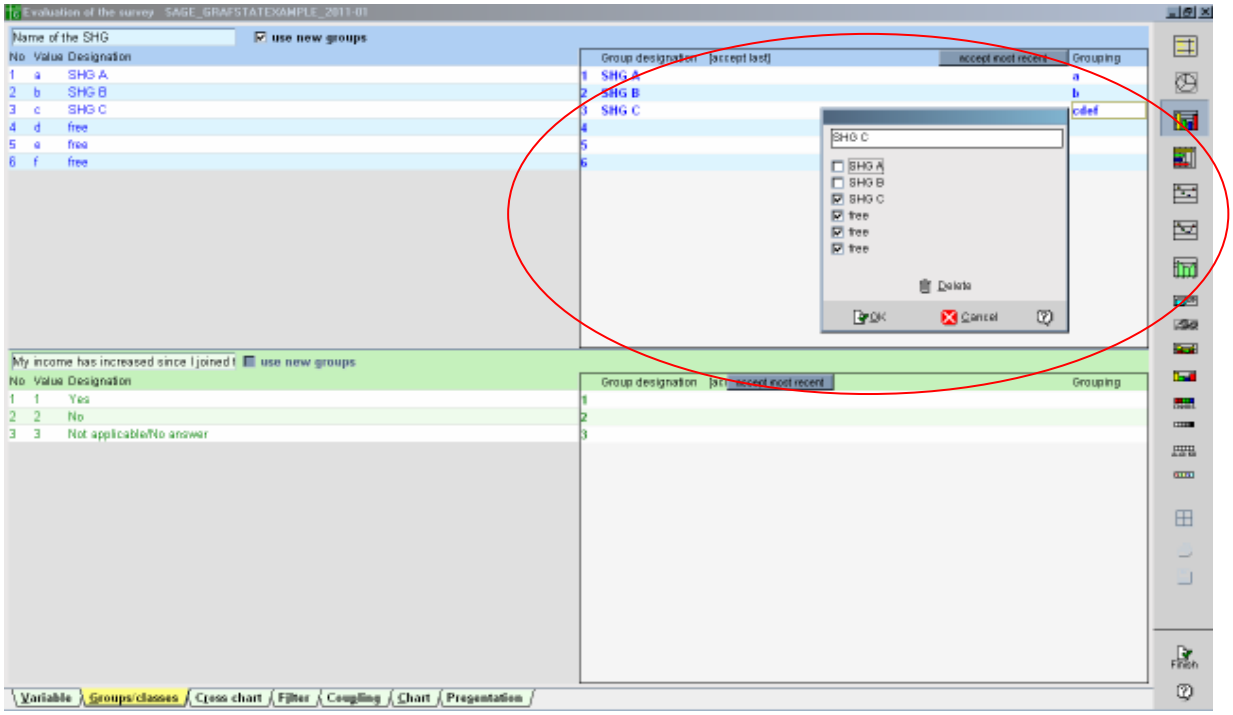
Another more sophisticated but also more complicated way to compare indicators of different groups/villages etc. was demonstrated in the PAG example in chapter 5.4.2 as another filtering method. If you go to the index page 'Charts' of the SAGE example, clicking on the arrow button in the selection field to the right side, top of the page up to *graph number 5 "Increased Income of different SHGs (Survey1)"* you will find another graph comparing SHGs in respect to the members increase in income since joining the group:



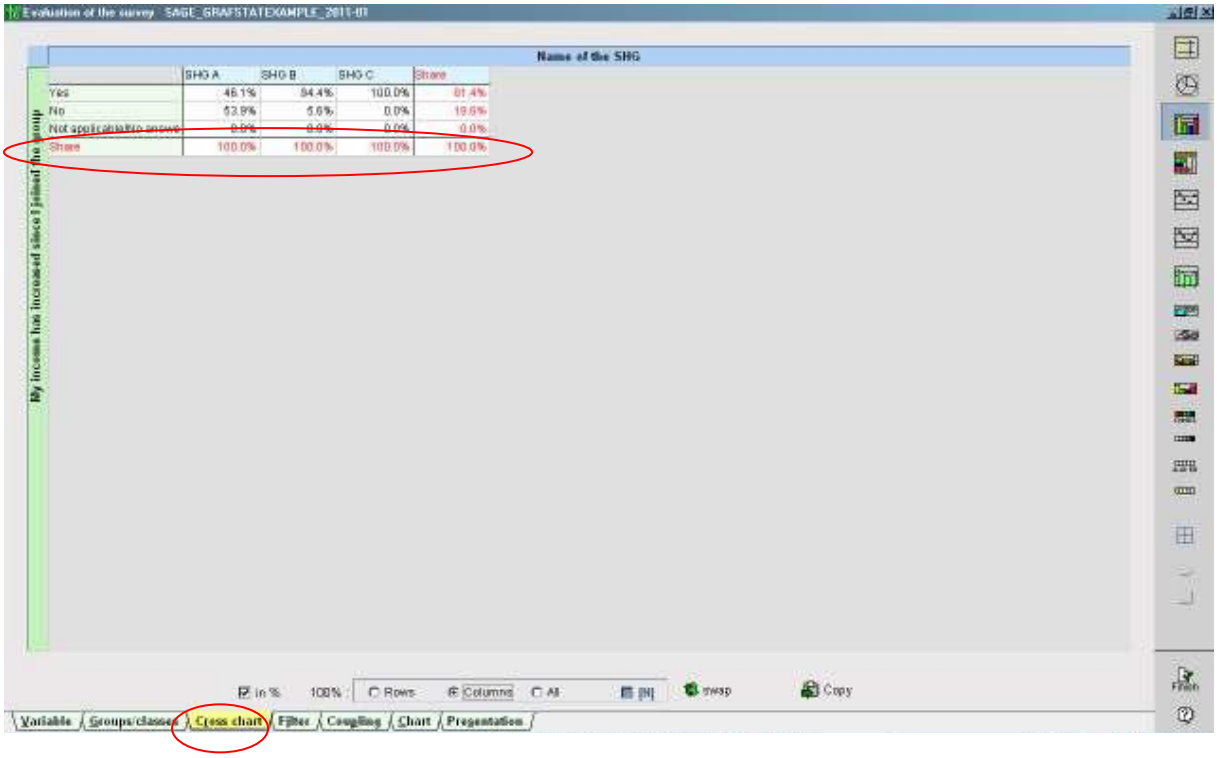
Suggested interpretation of the graph: *The graph compares the increase in income for members of different SHGs at the first survey. It shows that all SHG members of SHG C and nearly all members of SHG B (94%) increased their income since joining the group. In contrast in SHG A less than half of the members (46%) increased their income since joining the group.*

After opening the graph in the index page 'chart', go to index page 'variable'. There you can see that we chose variable no. 8 "Name of SHG" and then the indicator of interest, variable no 15, as second variable. We also set a filter to Survey No 1. This you could see if you go to the index page 'filter'.

In a next step we removed all the “free” answer choices through grouping them under the SHG C (see above - description on grouping). This is the only way to avoid that the free answer choices are displayed in the graph, and won’t have any effect on the analysis itself:



After this, as the final step, we chose in the index page ‘cross chart’ the data to be displayed in columns. This way GrafStat will calculate N 100% for each group.



6. Administrate surveys

Important administrative functions can be accessed via the following selection pages:

Copy survey
Copies a complete Survey, or parts of it, also in preparation for Data compilation.

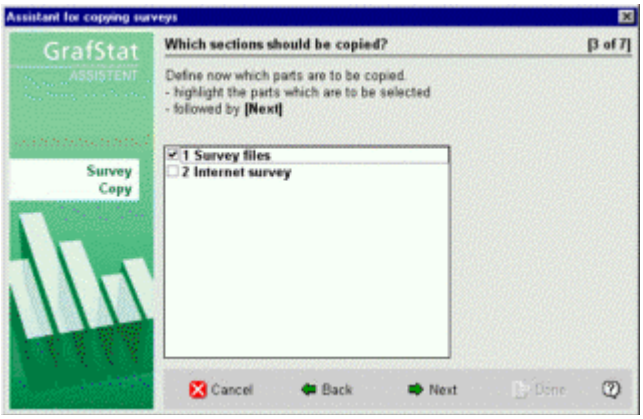
Compile Data
Compiles partial surveys in a complete file; add data from an Internet file; Compile data in LAN; Compile data from a data collection on the GrafStat file server. (Only to the "Master computer in client-server mode)

Data Treatment
Adapt gathered data to guidelines; calculates new variables form multiple variables; deletes all survey data (empty survey)

Additional Applications
Different independent applications (GrafShow, GrafMat, GrafComposer) are displayed, which can only be started separately.

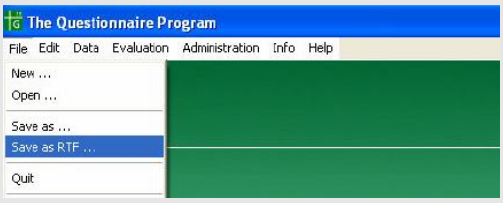
6.1 Copy Survey

Select in menu: Administer; Button: [Copy survey]
A GrafStat survey consists of a whole sequence of files. This Assistant ensures that all the files are copied:



- ***Select the survey which is to be copied*** - In the first step you can select a survey. If a survey is open at the time, then GrafStat will suggest this survey. You can however select any other survey you wish.
- ***Select sections*** - In the second step you can select from the available survey sections:1 Survey files, 2 Internet Questionnaires, 3 Evaluations, 4 HTML-presentation. GrafStat will certainly suggest the survey files, with which all necessary files will be copied. The other options will only appear in a selection window if the relevant files exist. You can select sections by clicking, which will set a tick next to the section selected. A second click will de-select the section.
- ***Select target*** - In the next step you can select a target. When you enter a new name, GrafStat will create copies of all selected files with the new name. If you wish to copy the survey into another folder, onto a disk, or onto another computer, then take  and use the open-dialogue window to select the desired target.
- ***Select Files*** - Before GrafStat begins the copying process, it will display a list of all the files which are to be copied. In addition, the program will now check that enough memory space is available on the target medium (with the exception of network directories).You can now select individual files. You should, however, only do this when you know *exactly* which purpose the relevant files serve – otherwise, simply accept the suggestions made by GrafStat. Copying is especially important for the collation of partial surveys. (see job-sharing data collection)

Alternative:
→You can also copy a survey in the 'GrafStat Entry Page' by clicking on the menu selection – [File] and then [Save as…]:



It is not advisable to copy a survey in the Windows Explorer as this might corrupt the survey data and analysis.

6.2 Compile data

Select in menu: Administration – Compile Data – Button [From Folder]

It is not only possible to share the job of gathering/entering data at different work stations for a single data collection time and compile afterwards. But we also suggest saving collected data for e.g. different villages or districts in separate GrafStat files for better data management (see also chapter 4).

'Compile Data' compiles the data collected/entered at different work stations or at different times and stored in different folders (USB - Stick, Disk, etc.) to one work station – as long as the questionnaire is the exactly same for the different data collection. For entering data, you could use the free version of GrafStat, while the data analysis has to be done in the commercial GrafStat version as it provides more functions than the free version (see chapter 1 and 4).

Attention:
→ For a problem-free collection of data, data collection/entry on different work stations must be done with the same questionnaire! Therefore, copy the questionnaire once for all work stations – Administer Survey: [Copy Survey] (see chapter 6.1). GrafStat copies several files, all of which belong to the survey!

→ The most common problem when compiling data comes from questionnaires with different structures.

To share collecting/entering of data you need to (1) copy the empty questionnaire to the different work stations, (2) then collect/enter the data on the different work stations and finally (3) compile the collected data to one work station.

The compilation may require working either with disks/USB-Sticks/CDs or over a LAN. GrafStat can help with Assistants for three variants:

- using disks/USB-Sticks
- in a network using folder structures and releases
- in a TCP-IP network (client-server)

Job-sharing data collection using disks/USB-Sticks/CD:
(A) Copy the surveys from the different work stations containing the collected data onto the disks/USB-Stick/CD.

(B) Compile data at one work station:

- insert a disk/USB-Stick or CD
- open [Compile Data]
- an Assistant guides you through the necessary stages

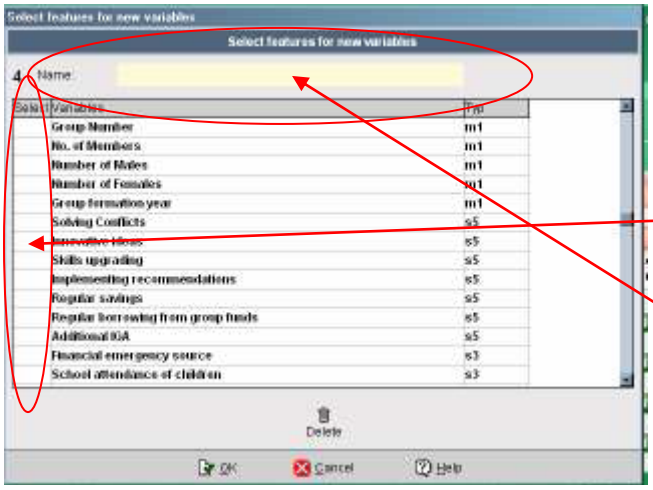
6.3 Calculated Variables

Select in menu: Administration – Data treatment – Button [Calculated variables]

GrafStat offers the option of calculating new variables from the existing variables. For example you can calculate the average of a group of variables - or their maximum value – as by constructing a new variable, e.g. “average economic impact”.

However, group of variables can only be calculated if they all have similar variables, and the same number of responses.

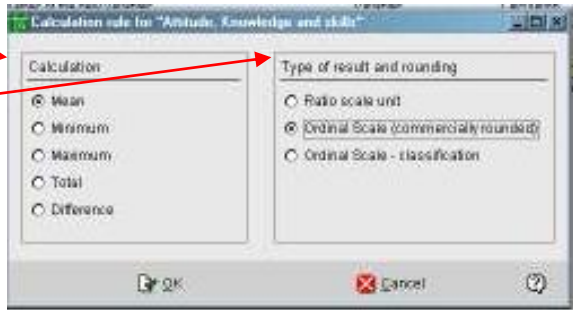
If you *select [ADMINISTRATION] and then [CALCULATED VARIABLES]* an on-screen window showing the beginning of a table will appear. To compile a calculated variable click on *[COMPILE NEW VARIABLE] and following table displays:*



You can use this table to *select the variables which will form the basis of the new variable.* You can also *name the new variable* here:

- *simply click on the desired variables in the table*
- *a cross will appear to signify that the variable has been selected (clicking again will deselect the variable)*
- *enter the words „New variable” in the field „Name“*
- *click now on [OK]*

A new dialogue window appears over the previous one:



Now you can *define how the new variable should be calculated* from the originals.

The second value *defines* the “*type of question” for new variable*.

- *click on [OK]*
- *the new variable is now entered in the table.*
- *select [OK] once again*

The prepared variable will now be calculated and entered at the end of the data list. If you go to “basic evaluation” the new variable will appear at the end of the list. It can be analysed like any other variable from the survey.

You can *delete the new variable* at any time.

- *once again, select [ADMINISTRATION] and [CALCULATED VARIABLES]*
- *click on the button [DELETE ALL VARIABLES]*
- *if you now quit the dialogue window by pressing [OK] all changes made to the variables will be deleted.*

Example

If you go to the PAG example 'Basic Report' *(Select in menu: Evaluate and Present Data; Button: [Basic Evaluation])* you will find questions no. 24 to 28 are all ***calculated variables*** which have been added to the questionnaire. No. 24 of the calculated variables was determined by the values of variables no. 10 - 12 of the PAG questionnaire (see Annex II) through calculating the average of the data and adding it as new value.

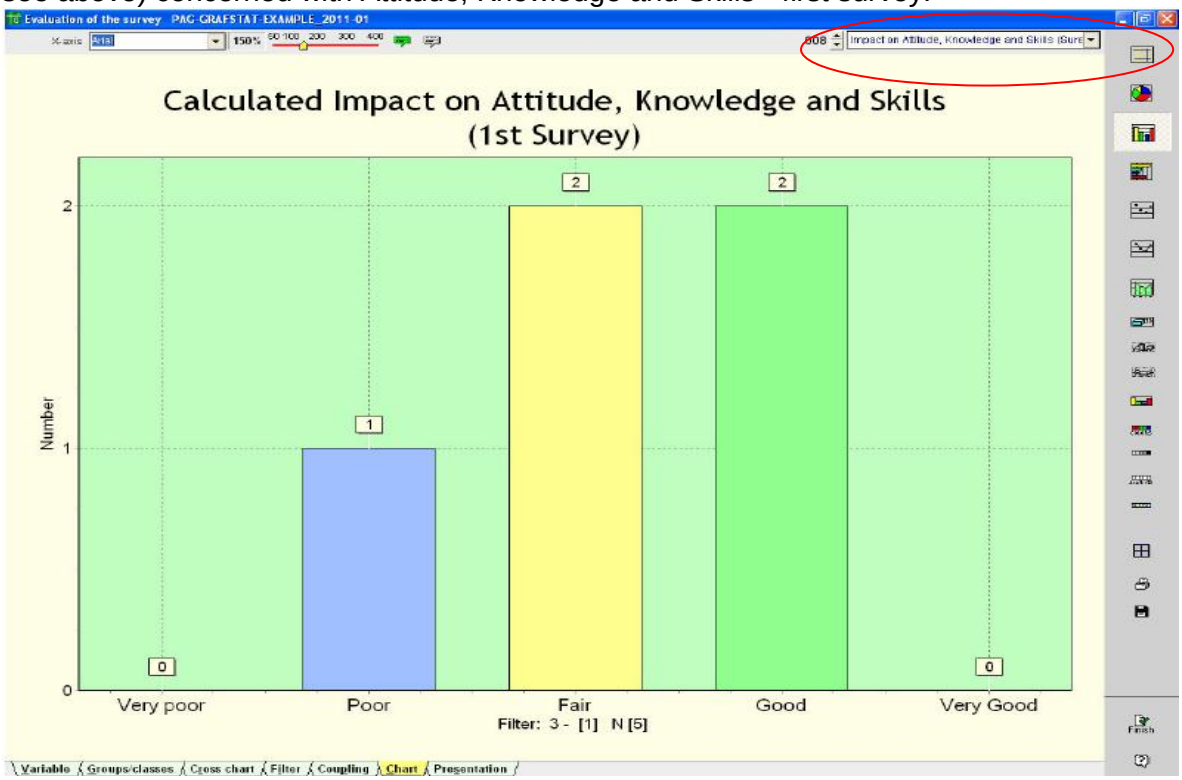
Result of the calculation for the first survey:

24) Impact on Attitude, Knowledge and Skills

Very poor	0	(00,00%)
Poor	1	(20,00%)
Fair	2	(40,00%)
Good	2	(40,00%)
Very Good	0	(00,00%)
Total	5	
Without answer	0	
Mean	3,2	
Median	3	

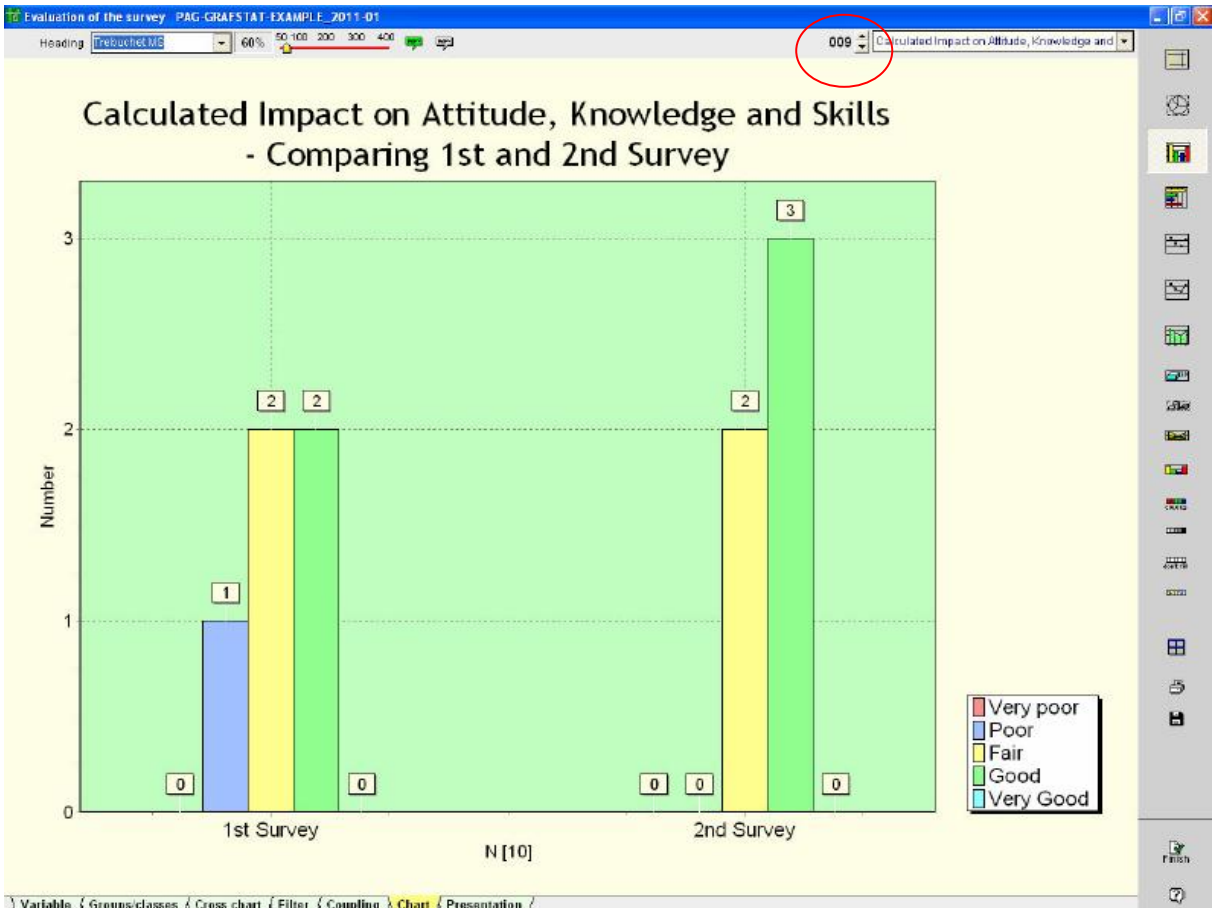
In our example we used commercial rounding standards (see above) for the result of the averaging calculation. The *mean* shows the sum of the values divided by the number of values. The *median* describes the numeric value separating the higher half of a sample from the lower half. The *median* of a list of numbers can be found by arranging all the observations from lowest value to highest value and picking the middle one.

If you go to "Charting" *(Select in menu: Evaluate and Present Data; Button: [*Charting*])* and then to the index page 'Charts', click on the arrow button in the selection field to the right side, top of the page up to *graph number 8 Calculated Impact on Attitude, Knowledge and Skills (1st Survey).* You will find a graph displaying the calculated variable (basic report no. 24 see above) concerned with Attitude, Knowledge and Skills - first survey.



Suggested interpretation of the graph: *Graph no. 8 presents the calculated results of the variables* concerned with Attitude, Knowledge and Skills. It shows that at the first survey for the majority of the groups the impact was fair and above (median 3) and for 1 group it was poor.

Graph no. 9 compares the *calculated impact of Attitude, Knowledge and Skills* of the 1st and 2nd survey:



Suggested interpretation of the graph: If we compare the Impact on Attitude, Knowledge and Skills of the first and second survey, a slight improvement can be seen: None of the groups rate the impact as poor, and one more is now at “good”.(graph no. 9).

7. Additional GrafStat Assistants

7.1 GrafPrep – transfer of identical header data

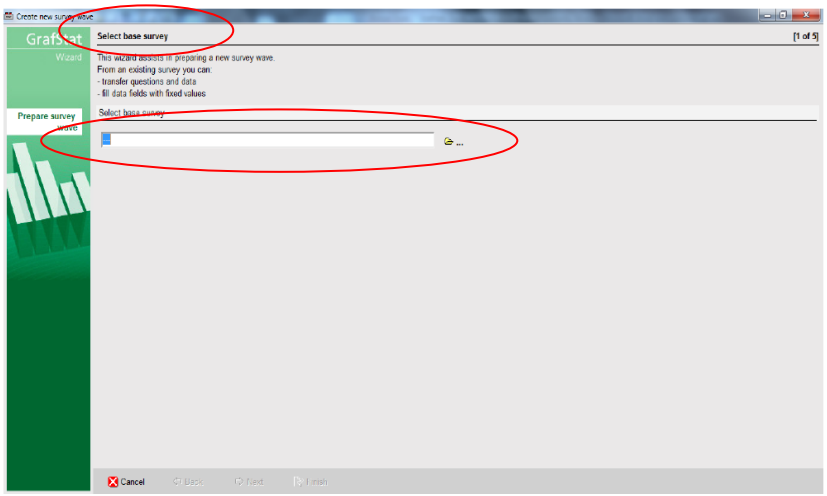
Within SAGE and PAG questionnaires, most header data (see chapter 3.4.1) (a) do not change from one survey to another and (b) some header data within a single survey remain the same for all group members. Therefore, this additional GrafStat Assistant reduces the workload of entering same data for different surveys or within a single survey repeatedly, by:

a. transferring identical information from one survey to another (e.g. from year to year);
b. entering data which are the same for all group members just once and then transferring them to the other group members (e.g. survey number or village name).

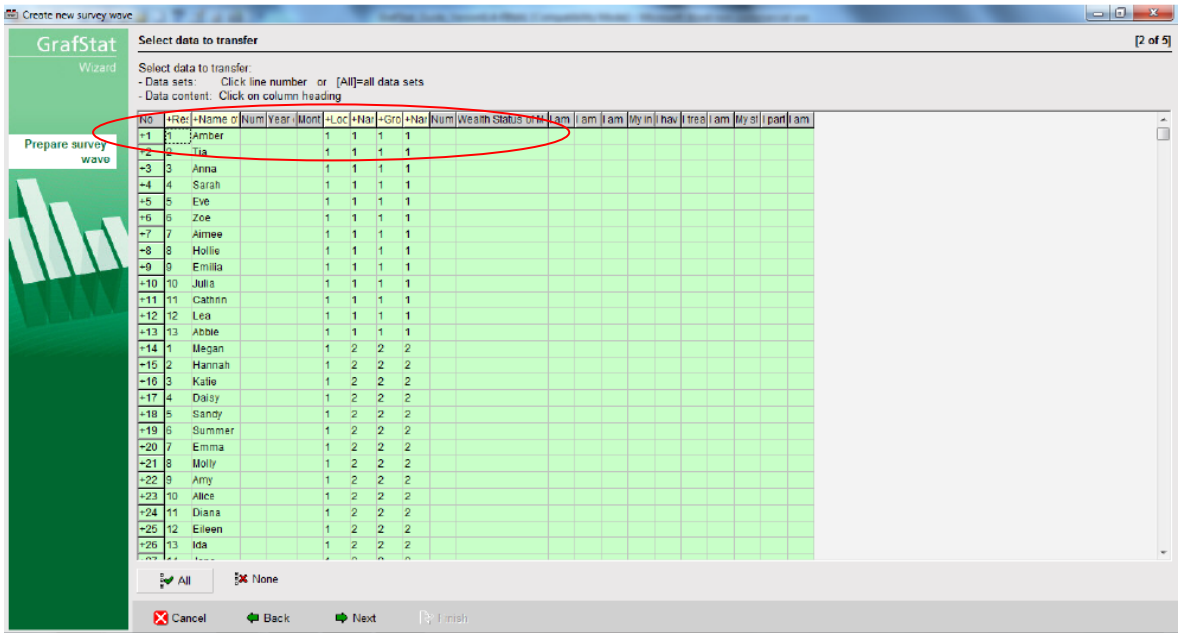
EXAMPLE

a. transferring identical information from one survey to another (e.g. from year to year);

In a first step you open the respective SAGE or PAG survey that has been conducted some time ago (e.g. SAGE Survey 1) and includes the data that you want to transfer to the second survey with GrafPrep.



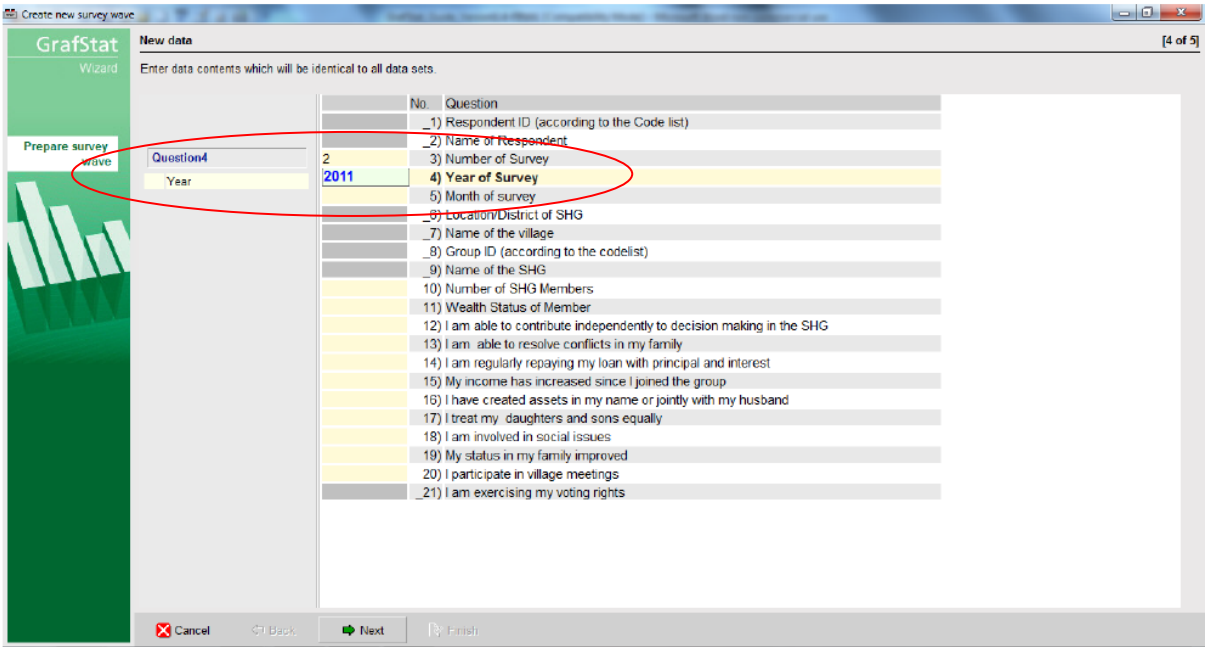
After opening a survey a new window opens in which you can now chose the data that you want to transfer to the second survey. In our SAGE example data to be transferred include: Respondent ID, Name of the Respondent, Location/District of SHG, Group ID and Name of SHG. All these data do not change over time. Hence after selecting the variables the window should display green and yellow marked fields:



By clicking on [Next] all selected data will be marked yellow. These data are now being transferred to a newly saved survey. After clicking on [Next] again you can include further data:

b. entering data which are the same for all group members just once and then transferring them to the other group members (e.g. survey number).

Again you chose to enter data only for the variables that will stay the same for the survey. In the case of our SAGE example this includes the survey number, which will be 2, most likely the survey year, and maybe also the month:



Clicking on [Next] again will open a window displaying all the data already included in your new survey, for each of the individuals (SAGE) or groups (PAG). This can now be saved as new survey.

Attention

→ In case there is a new member (SAGE), or a new SHG (PAG) to be included in the survey you have to enter all data for this new data set, e.g. including Respondent ID, Name of the Respondent, Location/District of SHG, Group ID, Name of SHG, survey number.

7.2 GrafMulti – analysing indicator development over a period of time

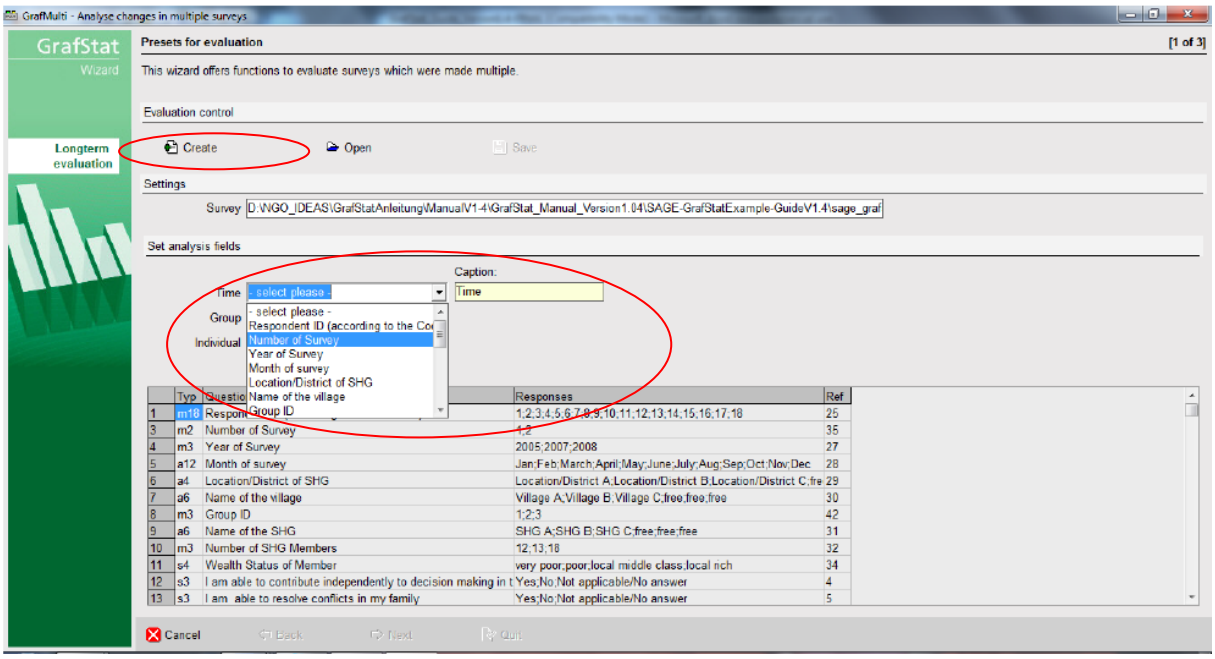
With NGO-IDEAs tools, SAGE and PAG, the same survey is conducted with same participants at different times. Therefore, analyzing the development of a single member, for a whole group or all groups, over a certain period of time is central to the approach. Whereas it is possible to present and analyse the development of a single variable over a certain period of time through graphs with GrafStat (see chapter 5.4.2 and 5.4.3), GrafMultis' support goes beyond such simple analysis, allowing for more differentiated and consolidated analysis of the same survey conducted at different points of time with the same group of survey participants. A time variable (e.g. survey no.) facilitates the identification of the different survey periods and the analysis of different variables within the survey. The Assistant, too, allows for the establishment of a consolidated matrix, which can be worked on by exporting data into Excel. There are two options of analysis:

a. simple analysis with a time variable, i.e. the evaluation will display the variables and their respective scales development over a certain period of time.
b. analysing change in answers of group members over time, i.e. displaying negative and positive changes and unchanged answers given.

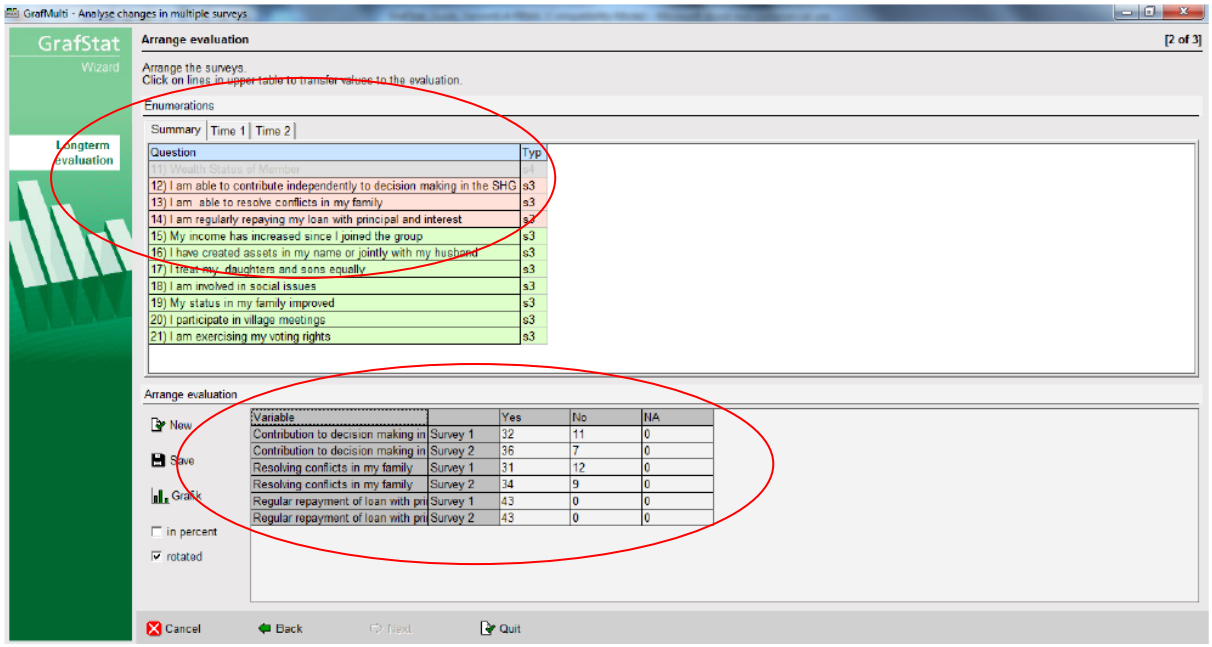
EXAMPLE

a. simple analysis with a time variable, i.e. this evaluation will display the variables and their respective scales development over a certain period of time.

In a first step you open the respective SAGE or PAG surveys that you want to analyse by clicking on the button [Create] under settings. After this the analysis fields to be set will be displayed. For simple analysis you only need to choose the time variable:



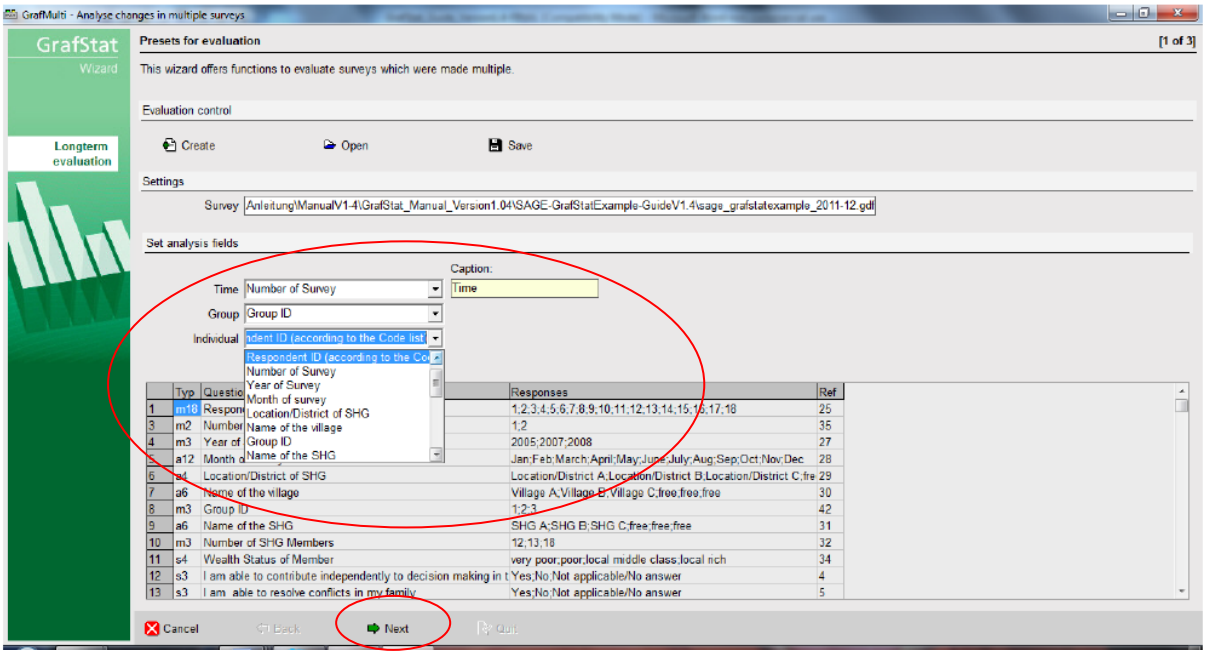
Now you will be able to click on [Next]. This will open a window displaying the summaries of the surveys conducted. Now you can transfer the variables under the heading "enumerations" to your evaluation by clicking on the respective rows. Selected rows will be marked and results transferred to a new table in the down part of the window:



The headings (in the columns and rows) can be changed according to the way you want them to be named e.g. in a graph. To view the graph you click on the button [Grafik]. As in GrafStat itself you can now save the graph as picture or export the data to an excel table.

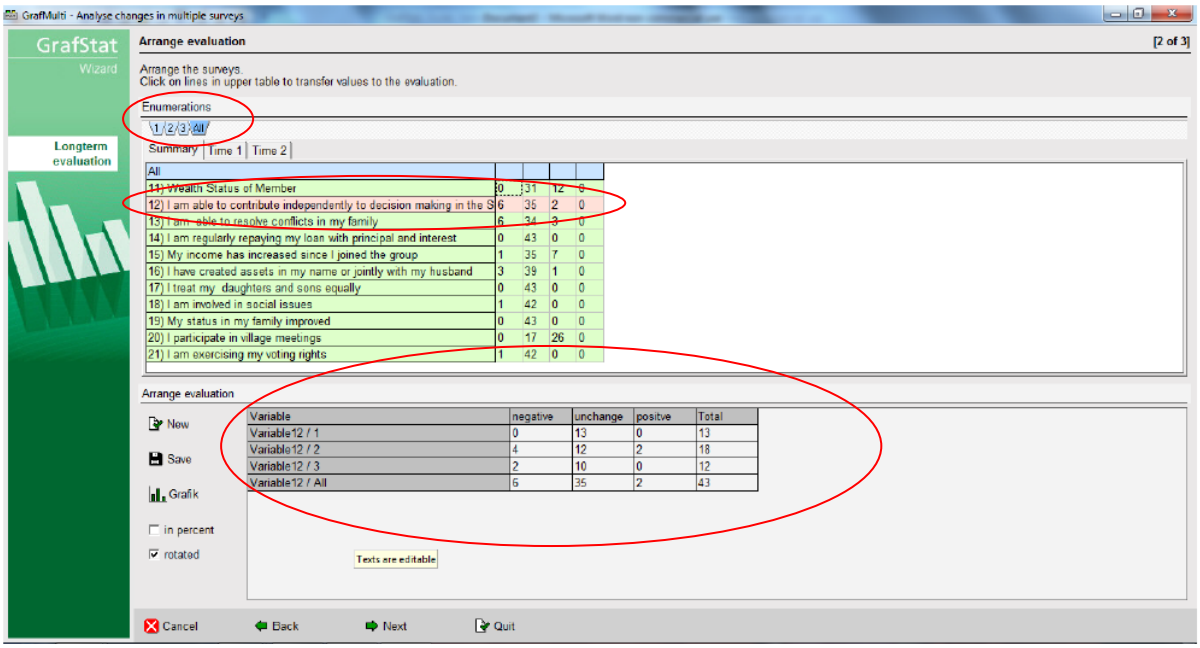
b. analysing change in answers of group members over time, i.e. displaying negative and positive changes and unchanged answers given.

In a first step you open the respective SAGE or PAG surveys that you want to analyse by clicking on the button [Create] under settings. After this the analysis fields to be set will be displayed. For this analysis you need to define all three analysis fields as you can see in the screen shot. In our example 'Time' = Survey No., Group = Group ID and Individual = Respondent ID:

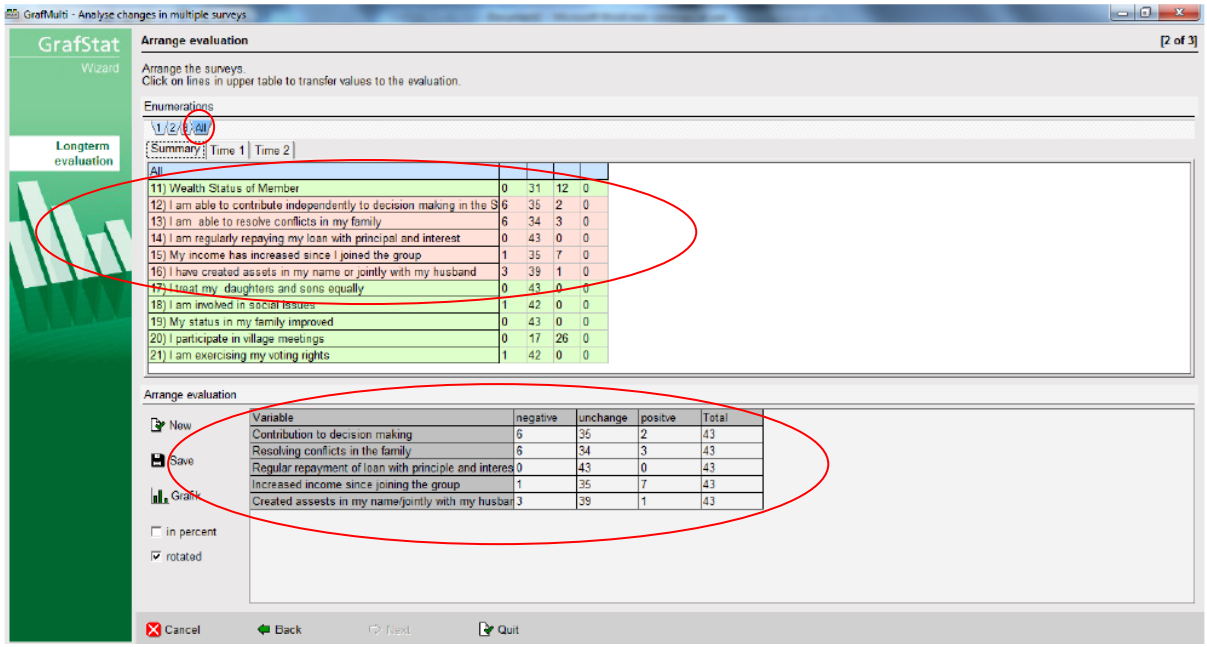


After this you click on [Next] and a new window will display the data. Now you select the variables to be analysed. You have two options:

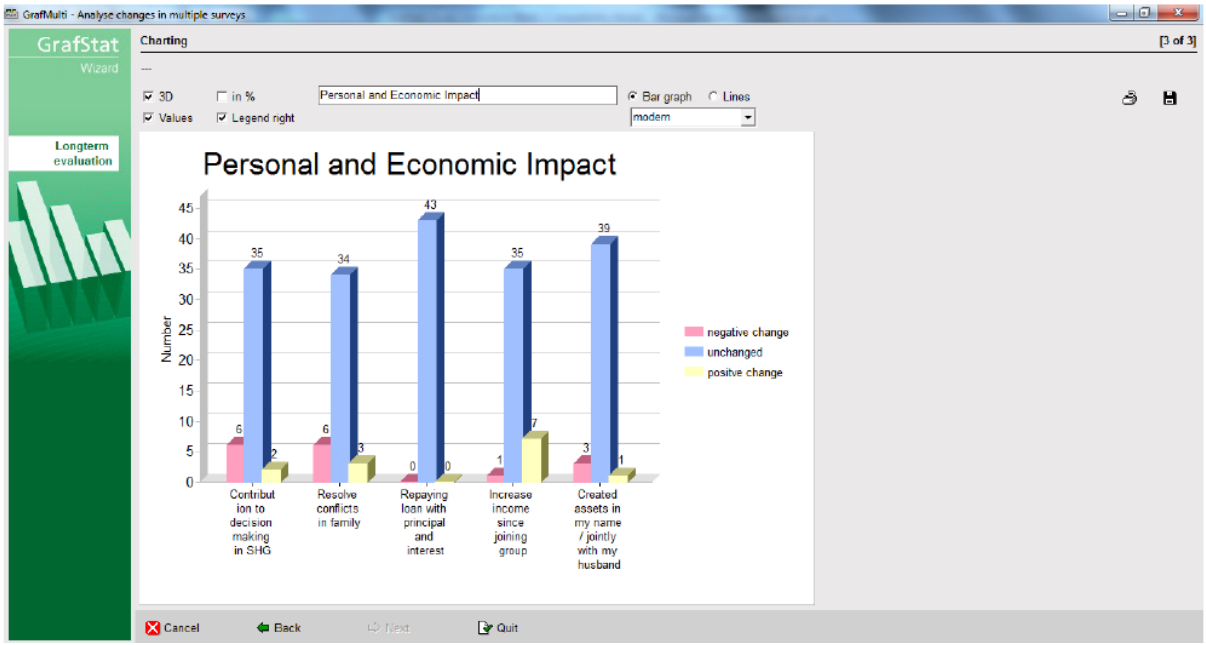
(1) analysing the development of one or more variables comparing each group and all. This is being done by clicking on the respective variables in each of the groups. You can find a tab menu on the top of the window to navigate through each of the SHGs clicking on the variable to be compared. In the example we have chosen Variable 12 for all three groups and “All” to be displayed in the table below:



(2) analysing only the overall results or results for one group selecting one or more variables in the respective tab. In our example we clicked on variable 12 to 16 comparing all groups and there changes:



After changing the variable names the following graph has been developed:



For both options you can save the data in an excel table. GrafMulti enables you, other than GrafStat, to export more than one variable into excel, creating a consolidated matrix of selected variables. For the creation of a simple consolidation matrix we chose option 1 selecting respective variables and exporting them to excel. The Excel sheet could display the following table:

	A	B	C	D	E	F	G
1	Variable		Yes	No	NA		
2	12) I am able to contribute independently to decision making in the SHG	Time 1	32	11	0		
3	12) I am able to contribute independently to decision making in the SHG	Time 2	36	7	0		
4	13) I am able to resolve conflicts in my family	Time 1	31	12	0		
5	13) I am able to resolve conflicts in my family	Time 2	34	9	0		
6	14) I am regularly repaying my loan with principal and interest	Time 1	43	0	0		
7	14) I am regularly repaying my loan with principal and interest	Time 2	43	0	0		
8	15) My income has increased since I joined the group	Time 1	35	8	0		
9	15) My income has increased since I joined the group	Time 2	29	14	0		
10	16) I have created assets in my name or jointly with my husband	Time 1	3	40	0		
11	16) I have created assets in my name or jointly with my husband	Time 2	5	38	0		
12	17) I treat my daughters and sons equally	Time 1	43	0	0		
13	17) I treat my daughters and sons equally	Time 2	43	0	0		
14	18) I am involved in social issues	Time 1	17	26	0		
15	18) I am involved in social issues	Time 2	18	25	0		
16	19) My status in my family improved	Time 1	37	6	0		
17	19) My status in my family improved	Time 2	37	6	0		
18	20) I participate in village meetings	Time 1	38	5	0		
19	20) I participate in village meetings	Time 2	12	31	0		
20							
21							

Attention

→ While selecting the variables for more than one group, you have to go through the tabs first to make sure that none of the variables has already been marked, otherwise it will not appear in the table below.

→ A more detailed description on GrafMulti can be found under C:/Programme/GrafStat/doc after GrafMulti has been installed on your computer.

ANNEX

I. Example Code list

In order to compare surveys over the years, each member needs a number for the GrafStat Software (a code) which needs to remain the same during all the surveys. The number needs to be given at data entry. The groups will not get to know which number refers to which member. This guarantees anonymity in data presentation within groups but also to outsiders who might get reports on data. In case your organisation has more than 32 SHGs/villages/etc. to include in one GrafStat file they need ID numbers, too.

Group No. 1 (SHG A)													
Respondent / Member ID													
ID No	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Name	Amber	Tia	Anna	Sarah	Eve	Zoe	Aimee	Hollie	Emilia	Julia	Cathrin	Lea	Abbie

Group No. 2 (SHG B)																		
Respondent / Member ID																		
ID No	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**
Name	Megan	Hannah	Katie	Daisy	Sandy	Summer	Emma	Molly	Amy	Alice	Diana	Eileen	Ida	Jana	Rebecca	Christina	Caitlin	Lola

Group No. 3 (SHG C)												
Respondent / Member ID												
ID no	1	2	3	4	5	6	7	8	9	10	11	12
Name	Jill	Lucy	Ella	Mia	Lily	Sophie	Grace	Miriama	Emily	Susan	Olivia	Ruby

II. Complete Examples of SAGE and PAG Questionnaires:

Questionnaire: SAGE – Example (for alternative questions and scales see AnnexIII)

1) Respondent ID
_____ No
2) Name of Respondent
_____
3) Number of Survey
_____ No
4) Year of Survey
_____ Year
5) Month of survey

[ ]a	Jan	[ ]g	July
[ ]b	Feb	[ ]h	Aug
[ ]c	March	[ ]i	Sep
[ ]d	April	[ ]j	Oct
[ ]e	May	[ ]k	Nov
[ ]f	June	[ ]l	Dec

I. GENEREL INFORMATION
6) Location/District of SHG

[ ]a	Location/District A	[ ]c	Location/District C
[ ]b	Location/District B	[ ]d	free

7) Name of the village

[ ]a	Village A	[ ]d	free
[ ]b	Village B	[ ]e	free
[ ]c	Village C	[ ]f	free

8) Group ID
_____ No

9) Name of the SHG[12]

[ ]a	SHG A	[ ]d	free
[ ]b	SHG B	[ ]e	free
[ ]c	SHG C	[ ]f	free

10) Number of SHG Members
_____ No
11) Wealth Status of Member

[ ]1	very poor	[ ]3	medium wealthy
[ ]2	poor	[ ]4	rich

II. PERSONAL IMPACT
12) I am able to contribute independently to decision making in the SHG

[ ]1	Yes	[ ]3	Not applicable/No answer
[ ]2	No		

13) I am able to resolve conflicts in my family

[ ]1	Yes	[ ]3	Not applicable/No answer
[ ]2	No		

III. ECONOMIC IMPACT
14) I am regularly repaying my loan with principal and interest

[ ]1	Yes	[ ]3	Not applicable/No answer
[ ]2	No		

15) My income has increased since I joined the group

[12] Only 32 answer choices can be entered – if you need more choices use measured scale and develop a code list.

[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

16) I have created assets in my name or jointly with my husband
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

IV. SOCIO-CULTURAL IMPACT

17) I treat my daughters and sons equally
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

18) I am involved in social issues
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

19) My status in my family improved
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

V. POLITCAL IMPACT

20) I participate in village meetings
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

21) I am exercising my voting rights
[ ]1 Yes [ ]3 Not applicable/No answer
[ ]2 No

Questionnaire: PAG Example (for alternative questions and scales see AnnexIII)

1) Number of the group
_____ Number

2) Name of the group
_____

3) Number of survey
_____ Number

4) Year of survey
_____ Number

5) Month of the survey

[ ]a	January	[ ]g	July
[ ]b	February	[ ]h	August
[ ]c	March	[ ]i	September
[ ]d	April	[ ]j	October
[ ]e	May	[ ]k	November
[ ]f	June	[ ]l	December

A. GENERAL INFORMATION

6) Name of the Region

[ ]a	Region A	[ ]b	Region B

7) Name of the Village

[ ]a	Village A	[ ]i	Village I
[ ]b	Village B	[ ]j	Village J
[ ]c	Village C	[ ]k	Village K
[ ]d	Village D	[ ]l	Village L
[ ]e	Village E	[ ]m	Village M
[ ]f	Village F	[ ]n	Village N
[ ]g	Village G	[ ]o	Village O
[ ]h	Village H	[ ]p	Village P

8) Number of members
_____ Number

9) Year of group formation
_____ Number

B. ATTITUDE, KNOWLEDGE AND SKILLS

10) Group solves its conflicts without external support

[ ]1	Very little	[ ]4	Good
[ ]2	Little	[ ]5	Very Good
[ ]3	Fair		

11) Group provides / organises skills upgrading services for its members as needed

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fair (Half)		

12) Group members practice recommended agricultural practices (crop husbandry, livestock husbandry)

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fair (Half)		

C. ECONOMIC IMPACT

13) Members of the group save regularly as agreed

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fair (Half)		

14) Group members borrow regularly from the group funds

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fair (Half)		

15) All group members engage in additional viable income generating activities that bring extra income

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fair (Half)		

D. SOCIO-CULTURAL IMPACT

16) Group members are able to take all their children to school

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

17) Group members are able to access quality health services for their households

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

18) Group is involved in wider community development initiatives

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

E. POLITICAL IMPACT

19) Group members are confident and participate in public forums

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

20) Group members take up leadership positions in the community

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

F. SUSTAINABILITY

21) Members actively participate in all group activities

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

22) Group has necessary links with required service providers and can mobilise most of its needed resources

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

23) Group has a working organisational structure with a functional constitution and leadership

[ ]1	Very little (None)	[ ]4	Good (Bigger Part)
[ ]2	Little (Smaller Part)	[ ]5	Very Good (All)
[ ]3	Fairly (Half)		

Attention:

Questions should be formulated according to the objectives a group formulates for itself. In the above PAG questionnaire, questions which ask about “group members” achievements for themselves (Questions no.: 12 to 17, 19 to 21) could also be asked in SAGE. The advantage, if the questions are asked in SAGE, would be that it is possible to follow up the development/improvement of each individual member. There is a serious disadvantage, however. There would be too many questions in SAGE which would severely increase the work needed for data collection and analysis. The decision whether to ask the questions in SAGE or PAG lies with the group and its information priorities. None of the questions should appear in SAGE and PAG at the same time.

III. Some alternative questions and scales for SAGE and PAG

SAGE	PAG
PERSONAL IMPACT I learnt how to sign [ ]1 Yes [ ]3 Not applicable/ No answer [ ]2 No I make use of what I learnt from trainings [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I am cross checking the entries in my passbook regularly [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No ECONOMIC IMPACT I am doing regular savings [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I am well aware of my credit needs [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I am involved in IGA and know the cash flow [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No Alternative livelihood other than farming [ ]1 Not at all [ ]4 Sufficiently [ ]2 Little [ ]5 Fully [ ]3 Half SOCIO-CULTURAL IMPACT I am conscious of my rights [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I am sending my school aged daughters and sons to school minimum up to …(10th std, up to primary level class 8, ect. – this depends on the societies educational system) [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I am conscious of the importance of the health of my family and will improve it [ ]1 Yes [ ]3 Not applicable/No answer [ ]2 No I spent more time with my children [ ]1 Not at all [ ]4 Sufficiently [ ]2 Little [ ]5 Fully [ ]3 Half	ATTITUDE, KNOWLEDGE AND SKILLS Group members bring new innovative ideas to the group [ ]1 None at all [ ]4 3/4 of the members [ ]2 1/4 of the members [ ]5 All members [ ]3 Half of the members ECONOMIC IMPACT Group members have a source for financial emergency [ ]1 None at all [ ]3 Adequate [ ]2 Not adequate SOCIO-CULTURAL IMPACT Group provides / supports the needy members in their community [ ]1 No support [ ]3 Support to even non members [ ]2 Support to members only SUSTAINABILITY Group members attend all meetings [ ]1 Very little [ ]4 Good [ ]2 Little [ ]5 Very good [ ]3 Fair

NOTE:

It is advisable to use 5 point scales and other scales then Yes/No the more detailed/differentiated the results of your analysis should be.

As mentioned earlier on, if you want to couple everything belonging to 'Personal Impact' 'Socio-Cultural Impact', 'Economic Impact', 'Political Impact' or 'Sustainability' you need to make sure that respective questions are all of the same question type, include the same number of responses.

IV. Checklist – Designing a Questionnaire, Data Collection and Analysis

No	Steps to take	To consider	Page
1	**Develop a questionnaire in Word: thinking ahead**		
1.a	Few relevant questions	▪ Header Data ▪ Specific Questions	p.16/17 p. 18
1.b	Question Types and Values	Consider *limitations and preconditions for the data* analysis: ▪ ***Single and multiple choice questions*** Only 32 answer choices can be entered – if you need more choices for villages, regions, groups use measured scale and *develop a code list*. Think of 'place holders'. These allow you to add village names or SHG names in case you want to include more in the survey at a later time. ▪ ***GrafStat cannot analyse Text*** Therefore it is advisable to include as few text responses as possible. ▪ GrafStat can only ***couple and calculate new variables of same question types and same number of response options.*** For that, ordinal scales are usually the best choice. ▪ Think carefully about the ***scale values and number of responses.***	p. 8/9 *p.17* *p.68*
2	**Cross Check the questionnaire by doing a Pre-Test and sending it to the Impact Plus Team for revision**		**p. 7**
3	**Enter the Questionnaire into GrafStat**		**p. 7-18**
3.a	New folder for each new survey	▪ ***Name of the folder*** should be the same as survey name, and at least include in the name the "Type of Survey – Organisation – Date – Place" ▪ ***Long path names*** should be avoided	p. 7
3.b	Question Text	▪ ***Only number the questions if*** you have your own system (e.g. Q1, Q1.1,…) otherwise you can add numbers later, when editing the printed form automatically ▪ ***Don't enter explanatory notes*** at this stage. You will have the opportunity to include instructions etc. before you print the form. ▪ ***Hard returns (enter) are not allowed*** when entering the question text	p. 8
3.c	Question Types and Answer Guidelines	▪ If 1.b was done carefully this won't be a challenge anymore ▪ ***Measured Scale***: by setting minimum / maximum value, values which are higher or lower will no longer be valid and for that not accepted when entering data. That can prevent errors at data entry.	p.8-11
3.d	Final editing of the design in the printed form	▪ format the questionnaire and add additional information texts	p.12-15
After finalizing the questionnaire it is advisable to keep it as a master copy and always work with a copy of the questionnaire when entering data. Give the copy another name.			p.58-59

4	**Enter Data with Data List Entry**		**p.20/21**
4.a	Sharing the job of gathering / entering data at different work stations	▪ For a problem-free collection of data, data collection/entry on different work stations must be done with the same questionnaire! Therefore, copy the questionnaire once for all work stations. GrafStat copies several files, all of which belong to the survey! Give each copy a different name! ▪ If you want to do job sharing and your questionnaires have different structures, you're in trouble.	p.59
Only after you have entered data you can access the basic list / export and evaluation functions GrafStat offers on its entry page.			
4.b	Validating Data	▪ The ***basic list*** provides an overview of all the data in a survey. ▪ ***Cross check data*** for duplicates etc. However, it may happen that two people give the same responses to every question. GrafStat can provide little help in such cases. Check your classification settings very carefully before deleting the highlighted data records – deleted data cannot be recovered.	p. 21/22
5	**Data Analysis**		**p.25-36**
5.a	Basic Evaluation	▪ Set respective ***filter*** for the basic evaluation (e.g. Survey 1, SHG B) ***to get relevant data overviews***	p.25/26
5.b	Detailed Evaluation	▪ ***Remember***: G*rouping* is about reducing the values of one question/variable by building new groups. C*oupling* compiles several variables from an evaluation and presents them together in a joint graph (see chapter 5.2.5) and *calculated variables* offers the option of calculating new variables from the existing variables (see chapter 6.3). ▪ ***Consider*** 1.b – ***preconditions*** for certain evaluations need to be fulfilled ▪ ***Save each new graph*** and its evaluation settings. ▪ ***Before saving for the first time***, select the colour scheme you wish to use for the graphic elements of your evaluations. If you do this first, you can ensure that your graphs and displays have a unified and coherent appearance	p.27-43 p.42 p.39
5.c	Presenting Data	▪ To ***present the data*** in Word Documents, Power Point Presentations etc., export the graphs either in jpeg, bitmap, etc.	p. 42/43

Publications

In order further to document and share the results of NGO-IDEAs, the following publications have been released

- **NGO-IDEAs Impact Toolbox**
  The Impact Toolbox describes simple tools for participatory planning and monitoring of grassroots' projects. It is designed to enable NGOs, groups and group members to steer a project to enhance positive outcomes or impacts, and reduce negative ones. (Editors: VENRO and NGO-IDEAs)

- "**Monitoring Self-Effectiveness": A Manual to Strengthen Outcome and Impact Oriented Project Management**
  The Manual intends to support an organisation to focus its planning, monitoring and evaluation procedures towards increased outcome and impact orientation. (Editors: VENRO and NGO-IDEAs)

- **"How do they do it? – Civil Society Monitoring Self-effectiveness": An NGO-IDEAs documentation of field experience**
  The publication presents descriptions of examples of outcome and impact analysis, which illustrate to staff of development organisations how outcome and impact assessment can be implemented and used in different ways. (Editors: VENRO and NGO-IDEAs)

- **NGO-IDEAs Tiny Tools for Impact Assessment**
  The "NGO-IDEAs Tiny Tools of Impact Assessment" present easily applicable tools, which help to assess changes (outcomes and impacts) and its causes with only one single application. They can be used for external evaluation as well as for self-assessment of projects.

- **NGO-IDEAs GrafStat Guide**
  GrafStat is a simple and helpful software which can be used by development organisations to prepare their monitoring data for analysis. This guide focuses on applications and examples of GrafStat relevant for NGO-IDEAs.

All can be downloaded at: www.ngo-ideas.net/publications/.