HANDBOOK

Online-QTAFI

For the administration of online surveys and

online questionnaires

ETF Working together
Learning for life

Home > Login

Login

Name	
Password	
☐ Remember Me	Login

This handbook attempts to provide an introduction to the administration of online surveys and questionnaires for first-time users of the QTAFI software. Its aim is to accompany users in their first steps with the tool, without delving too deeply into the background of the program.

The handbook was compiled and written by Tamara Arutyunyants.

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1. Introduction to the QTAFI software

Within the framework of graduate surveys, online questionnaires have now become more widespread and are used instead of paper questionnaires in many countries. This handbook is intended as a guide to the creation of online questionnaires as well as to the conduction of online surveys with the **Online-QTAFI software**.

QTAFI is free open-source software, supported by web-use, which is intended to help researchers in the design, administration and analysis of online questionnaires and surveys. **QTAFI** stands for **Q**uestions, **Ta**bles and **Fi**gures. It enables users to create online surveys and questionnaires, as well as managing the collection of responses and undertaking the data analysis, without the need for special IT knowledge. For instance, using this program it is possible to create an online questionnaire simply through mouse-clicks. Furthermore, the program contains many useful features and is also multilingual, which allows users to work with it and create questions in their native language.

Main features of Online-QTAFI:
Administration:
- Hierarchical structure: different users have different roles, which means that a choice can be made between taking a more or less centralised approach;
- Users can have different roles: administrator, manager or reporter.

Surveys:
- Creation of an online survey;
- Unlimited numbers of surveys and participants;
- Open vs. closed survey. In the case of a closed survey PINs may be created for the purpose of authentication;
- Response rate documentation.

Questionnaires:
- Creation of a user-friendly online questionnaire;
- Self-administration of the online questionnaire according to one's needs;
- An unlimited number of questions;
- Configuration of different types of questions, for instance single choice or multiple choice questions, open questions, or questions in scaling form, as well as using filter commands;
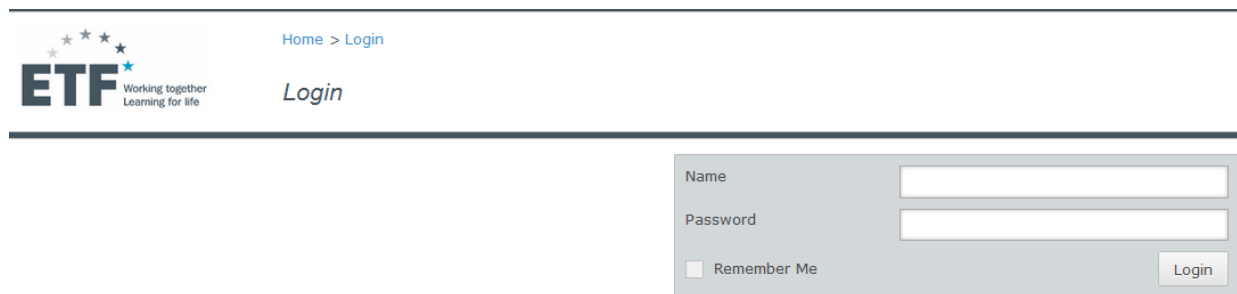- Documentation of the questionnaire data (codebook).

Data:
- Downloading of data in different formats, suitable for use in SPSS or Excel;
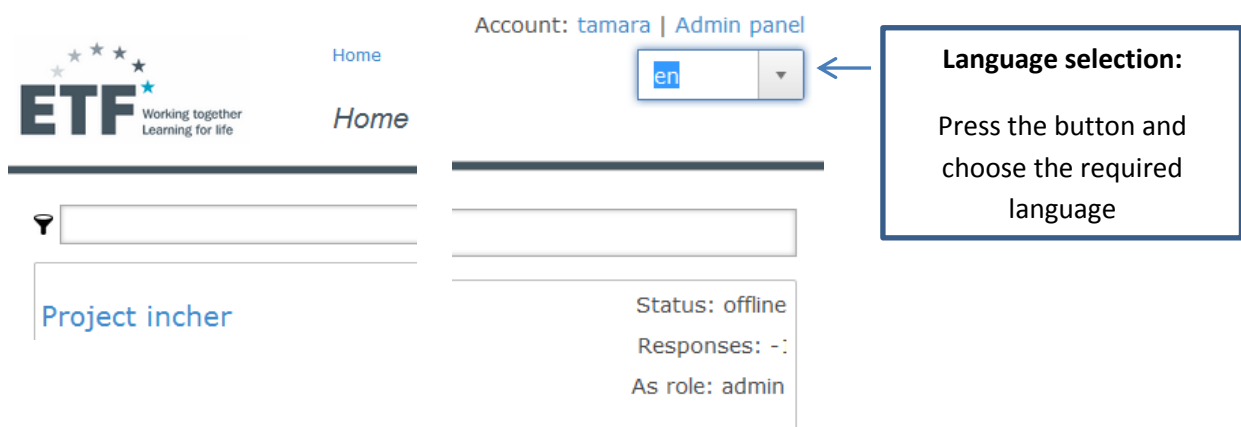- Data analysis – frequency, cross-tabs, bar charts.

1.1 Opening the QTAFI application

The application can be accessed online through a link to a space in the cloud. When the given web link is accessed, the login window will be displayed:

The user only needs to fill in the Name and the Password in order to launch the application. When the application is launched, the first page displayed contains information about the available projects, the account and the role of the person working with the QTAFI software, as well as the tab to choose the language of the application.


1.2 Personal account and Admin Panel

In order to work within the QTAFI software, a personal account will be created for each user by the software developer. Here one needs to differentiate between two kinds of account authorisations:

- An **account** itself may or may not be the administrator. Each account has access to different survey projects and can create new ones. But only administrators have access to the Admin Panel.
- For each **survey project** the users have assigned **roles** within the QTAFI program. The hierarchy here is admin, manager and reporter. The hierarchy of the role is crucial. When a question is protected by a superordinate role, this question cannot be edited by a subordinate role. If a manager protects a question, a reporter cannot edit it, but an admin can. If an admin protects a question, neither manager nor reporter can edit it. There is no other difference between the roles.

Function within account	Role within project
Administrator	Admin
Non administrator	Manager
	Reporter
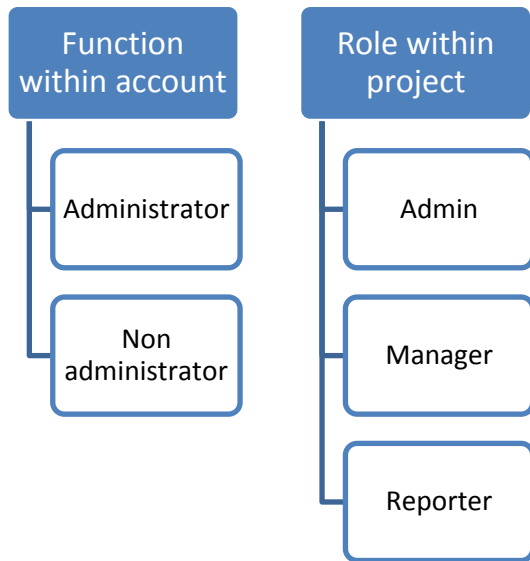
*Thus, the **administrator** as a **function within the account** and the admin as a **role within a project** are not the same. The administrator has access to the Admin Panel and can create additional projects and accounts as well as assigning specific projects to different accounts and deciding which roles different people can have within the projects. He or she can see all the projects and has access to all the data. However, a person with an admin role does not have an access to the Admin Panel, although they occupy the highest position within a particular survey project and can protect some questions from others.*

The **personal account** information is displayed in the upper right corner of the QTAFI:

Account: tamara | Admin panel

Here your account name (tamara) is displayed and if the role of administrator has been assigned to you → the Admin Panel is also displayed. When you click on your name you can change your password if necessary and log out of the software once you are done:

Account name: tamara (admin)

Change password

Logout

Now we will consider the Admin Panel, which is relevant only for those who are assigned to the administrator role.

Once you access the Admin Panel you are presented with the following information:

Accounts

Accounts
admin
matthias
etf
test
thuy
martin
katharina
tobias
heiko
tamara

Add account

Projects

Projects
test
etf
test2
Test1mrm
eoda
martin
arabic
teamevent
TestEST
mtmelsungen
anothertest
TestEST2
estnew
heiko_sandbox
eoda_erfrischungen

Create project **Remove project**

On the left side you can see the list of persons or organisations having an account within QTAFI (the users). On the right side the available projects are displayed (the surveys).

Double clicking on the account name (e.g. tamara) will bring up a separate window where the account details can be viewed and edited if necessary. The content of the account window is self-descriptive: the name of the person or organisation; the list of projects assigned to this person within QTAFI; the assigned role within the program. Here you can add more projects and allocate the role that a person or organisation should have within each project, or you can delete the available projects if necessary.

If you click the button 'Assign project' a new window will appear where all the created projects are listed:

Assign project:
You can choose another project and assign it to a user (e.g. tamara) in the event that this person is also working on a new project. His/her role within this project can be defined by clicking on the small triangle next to the box 'Select role…'.

If you double click on a particular project (e.g. incher), information about this project and who administers it or works within it will be displayed.
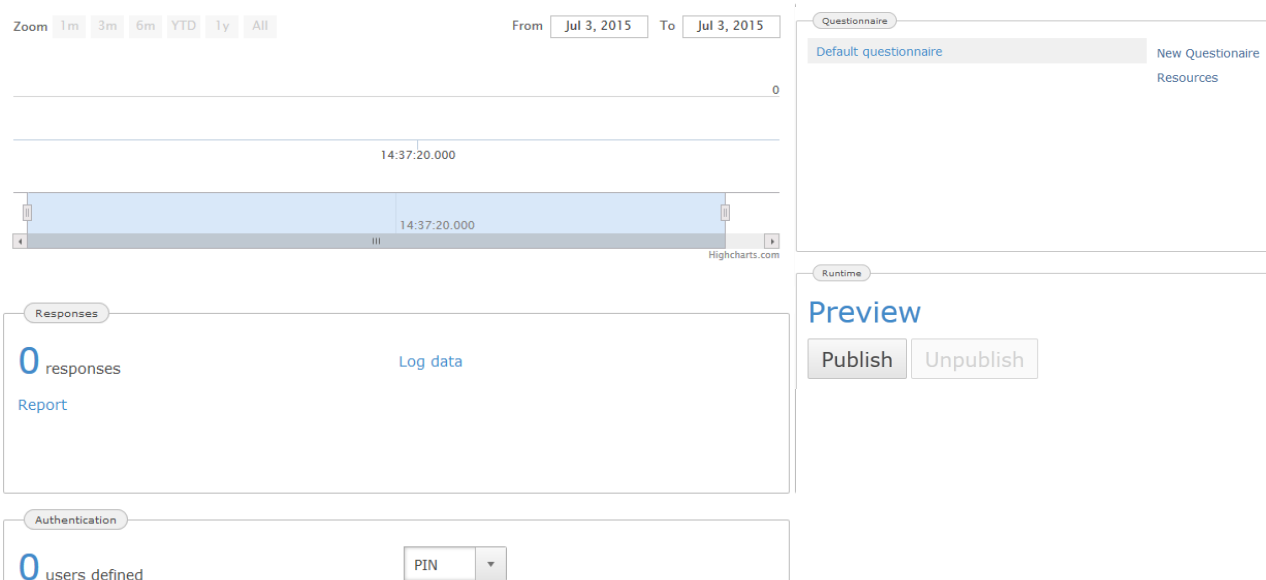
1.3 Overview of the 'Main Menu' of Online-QTAFI

After choosing the language, for example English "en" and clicking on the link with the available projects (in the Example it is "Project incher"), the main menu of the QTAFI application will be displayed in the English language.

Main menu:

This section explains the interface of the QTAFI software where you can get started, and its general functions. The main menu comprises various functions to run the survey and create an online questionnaire:

- **Response rate** – allows you to view the response rate during the course of the survey. It shows how many graduates participated in the survey out of the graduates that have been defined as the sample, from the first to the last day of the survey. The sample of respondents is defined in the authentication panel.

- **Responses** – allows you to check the detailed responses of the survey. It is the database of the survey that contains all the graduates' responses.

Log data – allows you to view and download the log data of the respondents who accessed, or tried to access, the questionnaire. Here every instance of the questionnaire/survey being accessed will be documented. The log serves mainly as a defence in the event of someone trying to log on using a PIN which was not created for the survey. If a person with the same IP address tries to log on several times with the wrong PIN, access to the survey will be blocked automatically by QTAFI. In the column 'Request' within the log data table you can see whether the wrong PIN was used – in the case of logon failure it contains data input (example logid 7 in the table below). Within the log data table you will find information about the number of people who logged in or tried to (column 'logid'), the access date and time (column 'originated'), the web link used (column 'path'), the IP address from which the survey was accessed (column 'ip'), and an indication of the incident type (incidenttype: 3 = INFO and 4 = authentication error shown here).

logid	sessionid	originated	request	query	path	ip	incidenttype
1	2e72069c-...	2015-07-0...			/qtafi/proje...	217.187.22...	3
2	9fd44b4f-2...	2015-08-0...			/qtafi/proje...	217.187.23...	3
3	3f83b4f8-4...	2015-08-0...			/qtafi/proje...	217.187.23...	3
4	5d5e85d9-...	2015-08-0...			/qtafi/proje...	217.187.23...	3
5	87b15199-...	2015-08-1...			/qtafi/proje...	217.187.23...	3
6	87b15199-...	2015-08-1...			/qtafi/proje...	217.187.23...	3
7	025cc3df-5...	2015-08-1...	de.tinu.qtaf...		/qtafi/proje...	217.187.23...	4

Report – here the data analysis can be performed. A detailed description of the data analysis will be given in a separate chapter of this handbook.

Authentication – here you can **define the number of users**, that is, is the number of persons you plan to contact to answer the questionnaire (sample size), and determine the **authentication** mode (whether or not the respondents will need to insert a code received with the invitation).


By clicking on the button 'O users defined', a new window will appear where you can stipulate the number of respondents you will contact. You have to create a PIN for each respondent. If you want to reach 120 respondents you click twice in 'create 100 pins', you export these 200 PINS (Excel .csv format), delete the 80 that will not be in your sample, and import them again (Excel .csv format). Now the software will automatically calculate the response rate.
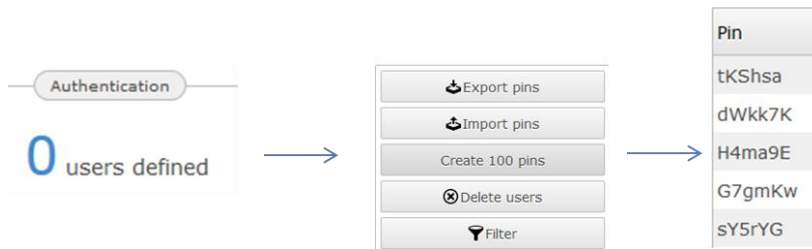
A **PIN** is a Personal Identification Number that is assigned to each participant of a survey. It serves to calculate the response rate and, in cases where the survey needs to be closed, it provides an access code to enable the respondents to fill out the online questionnaire. It also serves to send reminders to those who have not yet answered the questionnaire.

There are three **authentication modes**: OPEN, PIN and URL. The fact that each respondent has a PIN does not mean that they have to enter the PIN to answer the questionnaire. You can define whether this will be required or not.
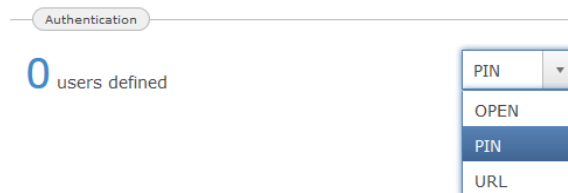
OPEN – everybody can participate in the survey through the link to the online questionnaire; no PIN is necessary to log in and answer the questionnaire.

PIN – only those participants who correctly insert a PIN can participate in the survey. The availability of PINs for online questionnaires also provides an opportunity for the target population to have multiple access to a questionnaire. In cases where the respondent cannot complete the questionnaire in one sitting, he or she can continue answering questions at a later date. Where a survey includes both online and paper questionnaires, PINs are important for handling the combination of questionnaires. Here respondents have a choice of what type of questionnaire to fill out. Entering a PIN into one type of questionnaire means that the other type of questionnaire can be considered as completed too. A reminder to complete a questionnaire should not be sent to the respondent in this case. For example, if you send a paper questionnaire with a PIN to a particular graduate and you also send them an invitation to participate containing the link to the online survey and the same PIN (each graduate receives only one PIN), this participant has a choice of filling out either a paper questionnaire or an online questionnaire. If they choose the paper questionnaire, you will not see their PIN in QTAFI, but when they send you their completed questionnaire you will then see their PIN and you can mark in your dataset that this graduate participated in the survey, and so you do not need to send him a reminder.

URL – in this case instead of sending PINs to the graduates in the invitation to participate in the survey, a concrete URL-link created by QTAFI will be sent to each participant. Every participant of the survey will have their own URL-link through which he or she can access the questionnaire. After opening the URL-link in the web browser, the content page of the

questionnaire will be shown – so there is no need for participants to log in to the questionnaire, it will be done automatically through the link.

Graduates who receive a URL can complete the questionnaire over a number of visits to the site. For example, say the online questionnaire contains a total of seven pages and a graduate answered the questions up to page 3 and then pressed the 'next' button, but was unwilling or unable at that time to answer the questions on page 4 and beyond and so stopped there. When they next use their URL-link to proceed with the questions, the questionnaire will open automatically on page 3, because that is the last page that was saved.

In practical terms there is no great difference between the PIN and the URL methods, as at the end of every URL-link the PIN is indicated and the functions are in general the same:

Pin	Info	Answered	URL	
h5SRpG		true	https://survey.eoda.de/qtafi/projects/incher/index.qml	Ph5SRpG
gVl6zh		true	https://survey.eoda.de/qtafi/projects/incher/index.qml	PgVl6zh
QvRzpH		true	https://survey.eoda.de/qtafi/projects/incher/index.qml	PQvRzpH

The only difference is that when the respondent receives a PIN, he/she will see the front page of the questionnaire and is required to enter the PIN when he/she wants to fill in the questionnaire. With URL the front page will not be visible – the graduate will directly access the first content page of the questionnaire.

For a combination of paper and online questionnaires you can also use the URL because, as mentioned above, at the end of every URL-link the PIN is indicated, which allows you to track the graduates who participated in the survey. However, when you send out the paper questionnaire you need to indicate which PIN a graduate should use, and this PIN should correspond with the URL-link.

However, using PINs rather than URLs is simpler and preferable as an approach. It is advantageous for graduates to see the front page of a questionnaire, which could provide useful and interesting information for them.

+ **Runtime** – allows you to preview and publish your survey questionnaire online. Clicking on 'Preview' gives you the possibility of viewing the questionnaire online and testing it. However, the data will not be stored.

Runtime

Preview

Publish   Unpublish

Preview - data will not be stored!

Survey of Graduates of the Year 2013

You can upload your questionnaire by pressing the button „Publish". After clicking the button "publish", the "Preview" will be changed to "Online". Once you click "Online", your questionnaire is uploaded and the data will be stored.

Once you publish your questionnaire, you cannot edit it. Editing the questionnaire is possible only when it is unpublished. This is in order to avoid mistakes and confusion once the questionnaire is online and accessible to the survey participants.

Runtime

Online

Publish | Unpublish
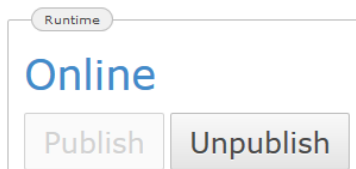
➕ **Questionnaire** – allows you to create an online questionnaire by clicking on 'Default questionnaire', and thereby accessing a questionnaire panel where a questionnaire may be designed. This is used for creating the online questionnaire, including choosing the required types of questions, entering filters where necessary, editing the content of the questionnaire and setting variables. The default questionnaire is a standard questionnaire that should be used for the survey.
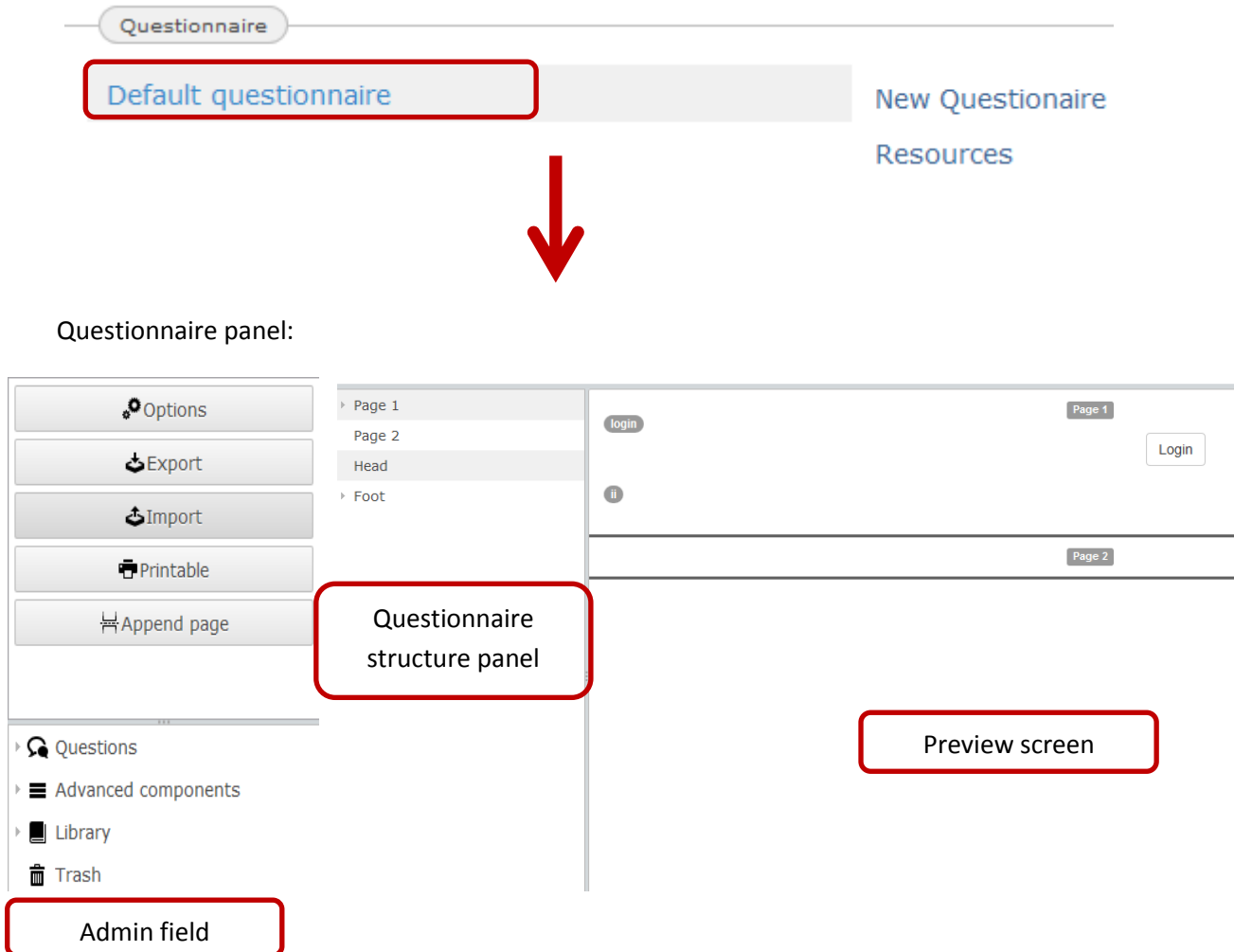
Questionnaire

Default questionnaire | New Questionaire | Resources

In the event of your project requiring the creation of several questionnaires in different languages, you can press the button 'New Questionnaire'. The 'New Questionnaire' is used only if, besides your main survey, which let's say is in English, there are also parallel surveys which need to be conducted in other languages – Russian, Arabic, and so on – and you want to design these questionnaires within the same project framework. When you do this, all the responses, irrespective of the language chosen, will be stored in the same database. When you click on 'New Questionnaire' a small window will appear where you can choose the language of the questionnaire and then confirm this with the 'OK' button. In this way you will create a new questionnaire in a new language, for example Arabic.

New Questionaire

Language: default ▾

OK | Cancel
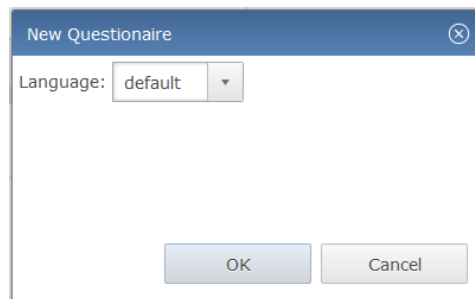
## 2. Creation of an online questionnaire

2.1 Questionnaire panel

An online questionnaire can be created through mouse-clicks within the Questionnaire panel of the Online-QTAFI. When the questionnaire panel is accessed by clicking on the default questionnaire, a window will appear with three questionnaire panels that are designed for creating an online questionnaire. You will mostly work within this window in setting up a questionnaire.
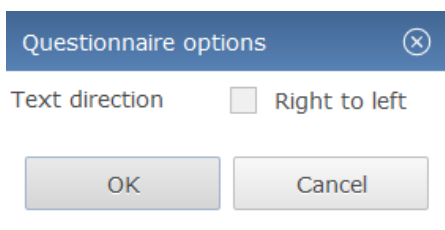

Questionnaire panel:

The opened questionnaire panel of the QTAFI software is composed of three elements: (1) an admin field with a number of tabs and commands; (2) a questionnaire structure panel; and (3) a preview screen.

2.1.1 Admin field of a questionnaire panel

The **admin field** comprises all the important commands, tabs and elements required for the creation of an online questionnaire. In order to add an element from the admin field to the questionnaire you have to press the mouse button and, holding the left mouse button, drag the question/element into the page of the questionnaire structure panel where you want to situate it.
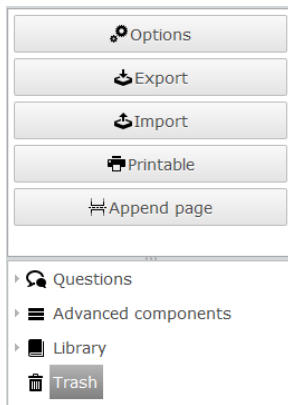
Options – determines the text direction within the question. For example, the 'right to left' text direction is required to write in Arabic. The standard text direction in the QTAFI is left to right.

Export – allows you to download the codebook of a questionnaire. The codebook represents the documentation of the questionnaire data by means of the self-describing and simple syntax of an extensible markup language (XML). The definition and function of the codebook will be explained below. *The export function allows the sharing of the same questionnaire between different projects in QTAFI.*

Import – allows you to upload material necessary for the questionnaire and survey data, including logos, pictures, style files, and other elements.

Printable – allows you to view the created questionnaire in a separate window and print it as a paper questionnaire if required, or save it as a pdf-document.

Append page – allows you to create an additional page of the questionnaire. As many pages as required can be generated with this tab. Every online questionnaire should contain at least three pages: front page, content page(s) and final page. The **front page** serves to explain what the survey and questionnaire is about and includes the login information where PINs are used. **Content page(s)** include all the questions, while a **final page** is used to express gratitude to the respondents for participating and to close the survey.

QTAFI only saves the data of the current page when the respondent moves to the next page. This is why the final page is very important. Only when you reach the final page will the answers on the previous page (the last content page) be saved.

Regarding the **content page(s)**, the content of the questionnaire can also be divided into several pages. It is up to you how you wish to formulate the pages:
- perhaps you want every part of the questionnaire to start with a new page (e.g. the first content page contains questions about 'education', the second content page comprises questions about 'job search', the third page about 'current employment', and so on);
- perhaps you want to restrict the length of online pages so that graduates do not need to scroll down too far when filling out the questionnaire. In this case you can decide to put 4–5

questions on one page (depending on how long the questions are) in order to provide a better overview of the questions and make the questionnaire easy to fill in. You can even have only one question per page, where this question contains many items.

The aim in creating the pages is to ensure that the questionnaire is well designed and user friendly.

When you have created several content pages, in the preview screen of QTAFI you will see the page number and the questions within it. When you publish this questionnaire and view it online it will have as many pages as you created, but the number of pages that the questionnaire contains won't be visible. When the questionnaire has more than one page you have to add the advanced component '**Navigation button'** that will allow you to go to the next page (see section on advanced components below). You can go to another page by clicking on 'Next page', or if you are somewhere in the middle of your questionnaire and you want to see earlier questions you can click the button 'Previous page'.

If you want to print out your questionnaire, the questions of every online page will start on a new document page; that is, even if the questions of the first online content page end in the middle of the printed document page, the questions of the second online content page will not start right away, but on the next document page.
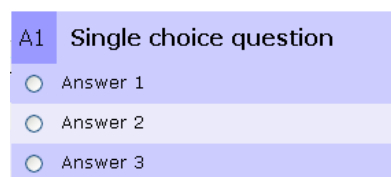
❖ Clicking on the tab 'Questions' will bring up the list of various types of question. Every question falls into a category type. This decides how the question will be formulated and programmed and how it should be analysed.

⌐ **Questions**
  ↪ Headline (HL)
  ↪ Single choice (SC)
  ↪ Multiple choice (MC)
  ↪ Ordinal question (OR)
  ↪ Text input (TE)
  ↪ Metric (ME)
  ↪ Date (DATE)

Short definition of question types:

- **HL** – headline of the questionnaire. Here you can not only give the title of your survey, but also write an introduction to it and explain why you are conducting it, while also giving some essential information about the questionnaire itself.

- **SC** – a single choice question, also known as a categorical variable question. Categorical variables are variables that group data into two or more mutually exclusive or contradictory categories, such as 'male' and 'female'. Here respondents have to choose *only one* variant of response from a list of possible responses.

A1	Single choice question
○	Answer 1
○	Answer 2
○	Answer 3

- **MC** – a multiple choice question. This type of question allows the respondents to choose as many items as they consider relevant from a list of given answers.

- **OR** – an ordinal question. This type of question allows the respondent to rate the given answers according to a scale. Here the appropriate values are assigned to the whole scale, for example from 'very satisfied' to 'not at all satisfied' or from 'very good' to 'very bad'.

- **TE** – a text field. This is characterised by an open question to which the answers are not predefined. It requires that the respondents enter a short piece of text as the answer.

- **ME** – a metric question. This is a type of question to which answers in the form of numbers are given.


- **Date** – another version of a metric question, this question allows the respondent to give a date – by month and year. By clicking the answer box a small window with months and years appears from which the respondent has to choose the respective month and year.

❖ Clicking on the tab 'Advanced components' brings up a list with the additional elements needed for programing a questionnaire:
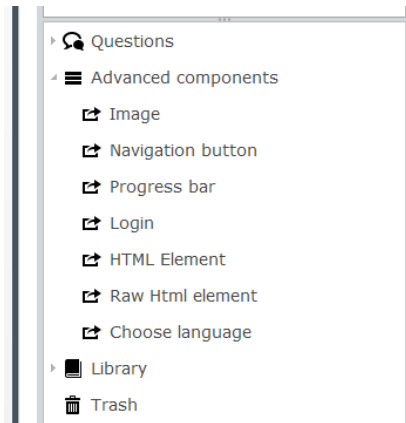
Image – here an image required for an online questionnaire can be uploaded.

Navigation button – the navigation function is very important for the layout of the questionnaire in the online format (output version). It creates two navigation buttons ('Previous page' and 'Next page'), which facilitate the transition from one page to another. Another function of a navigation button is that it helps to save the responses of graduates. Only when you click the button 'Next page' will the responses of the previous page be stored; otherwise the data will not be saved. You can choose the location of the navigation buttons – at the head and/or the foot of each page.
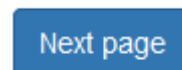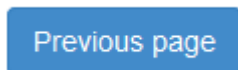
Progress bar – indicates that a progress bar will appear on every page so that the respondents can assess the length of a questionnaire and see their progress in filling it in. You can choose whether the progress bar will appear at the head or at the foot of each page.
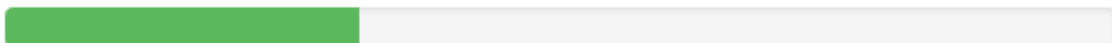
Login – the login field on the front page of an online questionnaire is important in starting the questionnaire. If you have defined the survey as using PINs, the respondent has to insert their PIN as a password to authenticate their participation and access the survey.

HTML Element – allows the writing of a piece of plain text, for example some words of welcome, a passage of explanation or closing text, especially on the front and last pages of a questionnaire.

RAW HTML element – allows you to manage HTML on part of your page. Here you can write texts or necessary scripts. However, it can be used only if you have knowledge of HTML. If not, you don't need to use it for programing your questionnaire.

Choose language – will allow the respondent to choose the language from the different questionnaires you have defined. If you have only defined one default questionnaire you do not need to add this element.

❖ **The tab 'Library'**

Within the Library you can save already created questions in case you want to use them again for other questionnaires related to other projects. This means that you don't need to recreate these questions as they are already available and can be used as many times as required. In order to save questions within the Library, click with the left mouse button on the question itself within the questionnaire structure panel and, holding the mouse button down, drag the question to the Library.

◢ 📕 Library

    OR - MRM2 - ordinal1

    SC - VA2 - Achieved qualification
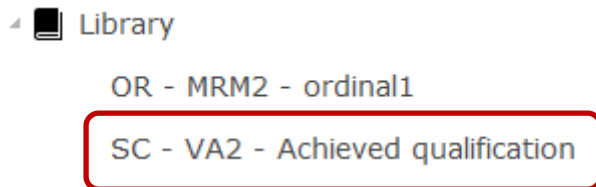
When you move a question to the Library the following information about the question will be displayed: question type (single choice (SC)), question ID (VA2) and the subject of the question (short information about the content of a question – here, 'Achieved qualification'). This means that you can easily find the required question.

❖ **The tab 'Trash' –** helps to delete any wrongly created or unnecessary elements/questions.

🗑 Trash

## 2.1.2 Questionnaire structure panel

This questionnaire structure panel displays the structure of a questionnaire – its pages and questions within each page, as well as other elements incorporated into the questionnaire, such as navigation buttons, progress bar, and so on. After adding questions to a page a triangle will appear on the left side of the word 'page' meaning that a page contains questions or elements. You can add elements and questions to a page by clicking with the left mouse button on the corresponding question and, holding down the mouse button, dragging the question to the page in which it is to be located.

| ▸ Page 1 |
| Page 2 |
| Head |
| ▸ Foot |

⟶

| ◢ Page 1 |
| HL - VLEAD1 |
| XHTML - VLEAD2 |
| LOGIN - VPIN |
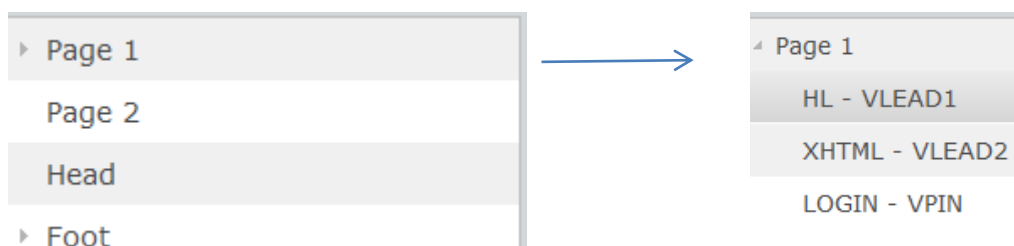
2.1.3 Preview screen

The preview screen allows you to view the results of designing your questionnaire – the created questions and elements. As soon as one question or element is generated it appears on the preview screen.
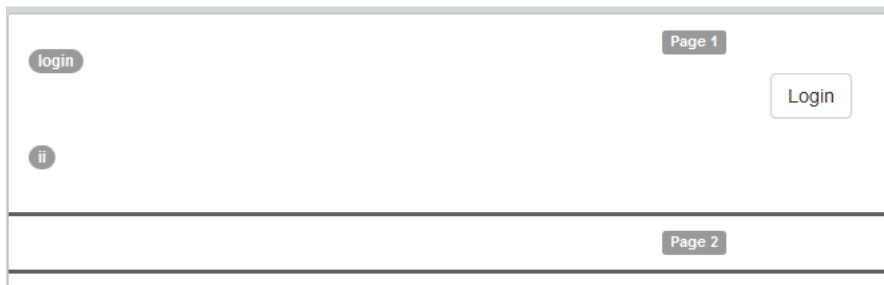
A   The course of studies at the VET/HE institution

In this section please refer in your answers only to the studies that you finished in 2012 at the VET/HE institution. In case you acquired more than one degree at the VET/HE institution, please refer to the degree (or course of studies) which is most important to you.

VA2

A2   Which qualification did you achieve at the VET/HE institution?

- ○ Certificate
- ○ Diploma
- ○ Other (please specify):

2.2 The creation of pages and questions in QTAFI

In this section the process of creating new pages, questions and required elements for an online questionnaire will be explained in detail.

2.2.1 Creating a new page

Before you begin to set up the questions you will need a page to put them on. Online questionnaires usually consist of three types of pages: an introduction or front page, a content page or pages (depending on the length of your questionnaire) and a closing page.

The **front page** contains the title of the survey, an introduction to it and an explanation of both the survey and the questionnaire. If you create a closed survey for a particular group of people, the first page of your questionnaire has to include the login details for the respondents.

Content pages contain all the questions and filters of your questionnaire.

The **closing page** states that the questionnaire is finished and usually expresses your gratitude to the respondents for filling in the questionnaire.

In order to create a new page, click 'Append page' within the admin field of a questionnaire panel. Once you have created the first page of a questionnaire and programed the questions within that page, you can create the following pages by clicking again on 'Append page'. The pages will automatically appear in the questionnaire structure panel.

When filling in the questionnaire the entered data will be stored when the respondent clicks on the 'Next page' button. *Therefore, it is important not to have a question on the final page, as it will not be saved!*

2.2.2 Front page

The front page contains an introduction to your survey/questionnaire, including a description of its purpose and details relevant to the questionnaire. In order to develop the front page, a range of elements are used. In creating the front page, the following two elements are important: the **Headline** <HL>, including the introduction text, and the **login** – PIN field <PIN> – that enables the respondent to start the questionnaire.

The front page would be the *first page* of a questionnaire that has already been created by default. So here you just need to add the above-mentioned elements in order to provide the content for the front page.

   A. The *first step* is to create the **Headline (HL)** of the front page to provide the *title of the survey*. To create the headline, click the 'Questions' button in the admin field of the questionnaire panel (left side), then click on 'Headline (HL)' and, holding down the left mouse button, drag the question into the first page. By doing this you will insert the HL-question into your first page.

On inserting the question, a new window 'Question editor' will appear, in which you are presented with a series of dialogue boxes where you can enter the details of the headline to be determined.

Question editor:

Within the question editor the following information is to be provided:

Id – the identity of the question for referencing. You can decide for yourself how you would like to label the ID. One of the possibilities is 'VLEAD1' where V stands for variable, LEAD for leading part and 1 for the first or main text of your survey.

Protected – a small box at the end of the ID field. This can be used, for example, by the administrator for the protection of a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the subject of the headline: short information about the content of the headline (in this case 'graduate survey').

Text – the text specifies the title of the survey or the university carrying out a survey.

After entering this information confirm it with the 'OK' button. As a result you will see the HL element under Page 1 in the questionnaire structure panel and the text itself – the headline of your survey – in the preview screen.
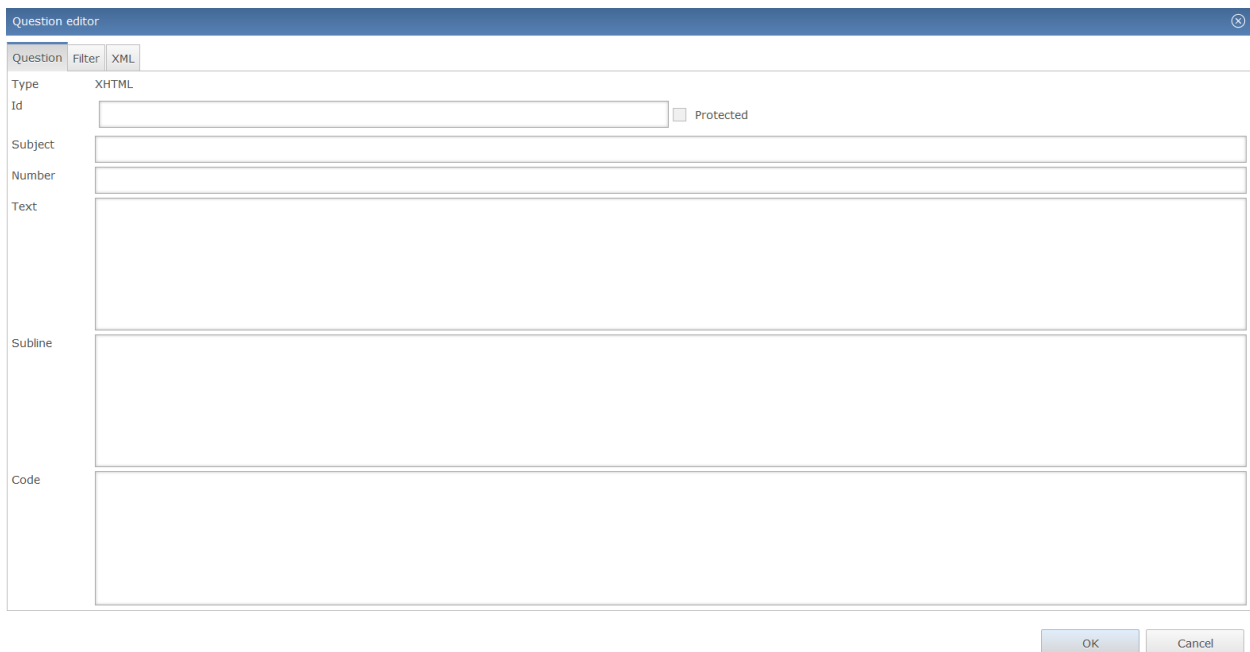
B.   The *second step* in programing the front page of a questionnaire is to provide the text forming elements such as the invitation to participate in the survey and the explanation of its purpose. To do this you need to open the 'HTML element (XHTML)' to be found under 'Advanced components' in the admin field of the questionnaire panel (left side).

The HTML element is used mostly for plain text which does not require any particular question structure. This means that if you have a straightforward piece of text, such as an invitation to participate or a closing paragraph for the survey, or perhaps some explanation for asking particular questions within a certain part of the questionnaire, you can add it using the HTML element.

To create the invitation text, click on the 'HTML element' and, holding down the left mouse button, drag the question into the first page. On inserting the question, a new window 'Question editor' will appear, in which you are presented with a series of dialogue boxes where the details of the headline to be determined can be typed in.

Question editor:

Within the HTML element the following information can be given:

Id – the identity of the question for referencing. You can decide for yourself how you would like to label the ID. One of the possibilities is 'VLEAD2', where V stands for variable, LEAD for leading part and 2 for the second main text of the front page of your survey.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subline – the invitation to participate in the survey and an explanation of its aims: just type the text in the given box.

If you want to edit the text, for example by inserting line breaks in order to make it more attractive and easier to read, specific tags can be applied. The <br/> tag inserts a single line break. If you want to insert a two-line break, just type the tag <br/> twice. See the example below:

Confirm the entered information with the 'OK' button. You will then see the HTML element under Page 1 in the questionnaire structure panel and the text itself in the preview screen.

Page 1	Dear Graduates,
HL - VLEAD1	
XHTML - VLEAD2	As head of the research group, I kindly request your participation in a survey of graduat their studies in 2012.
Page 2	We would like to find out what happened to you after you completed your studies. Did y
Page 3	still looking for a job, did your studies prepare you well for the workplace, and do you us
Head	skills you have learned during your studies? Mainly, the improvement of the study progr
Foot	specific, the revision of the curricular, are the core objectives of the graduate survey. Yo
	treated with strict confidentiality.
	The results will be published in such a way that identification of individual persons is ex
	survey will be published on our web site.
	Thank you very much in advance for your kind support.
	Mr. XXX (Project leader of the XXX graduate survey team)

C. The *third step* in programming the front page is the creation of the **login field**. This element can be used to identify the respondents when the questionnaire is closed, or to initiate it when it is open (see 'authentication' in section 1.3).

The PIN element serves as starting point for users to begin the questionnaire.

To create the login, click on ↗ Login (LOGIN) and, holding down the left mouse button, drag the element into the first page within the questionnaire structure panel.

On inserting the element, a new window 'Question editor' will appear, in which you are presented with a series of empty dialogue boxes where the details of the login to be determined can be entered.

Question editor:

Question	Filter	XML

Type	LOGIN
Id	VPIN
Subject	
Text	Please enter your access code:

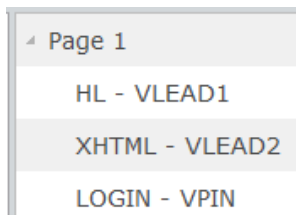| Login button | Logon | | OK | Cancel |

Within the question editor you define:

Id – for example, VPIN – where V stands for Variable and PIN for PIN. You can decide for yourself what ID you would like to use.

Text – defines the instruction text for the respondents.

Login button – the label of the button, for example the word 'Logon'

Confirm the entered information with the 'OK' button. You will then see the login element under Page 1 in the questionnaire structure panel and the text itself in the preview screen.

2.2.3 Content page – the creation of questions

The process of creating online questions is, in general, the same for all types of questions. In order to create questions the type of question should be selected on the left side of the questionnaire panel under the tab 'Questions'. By clicking the left mouse button on the selected question, holding it and dragging the question into the appropriate page of the questionnaire in the second questionnaire structure panel, a new window 'Question editor' will be opened. The 'Question editor' window presents you with a series of dialogue boxes which need to be filled in. This window contains all the elements which have to be identified for each type of question. By filling in the form and then clicking the 'OK' button you create an online question. A created question appears in the questionnaire structure panel on the page where it was inserted.
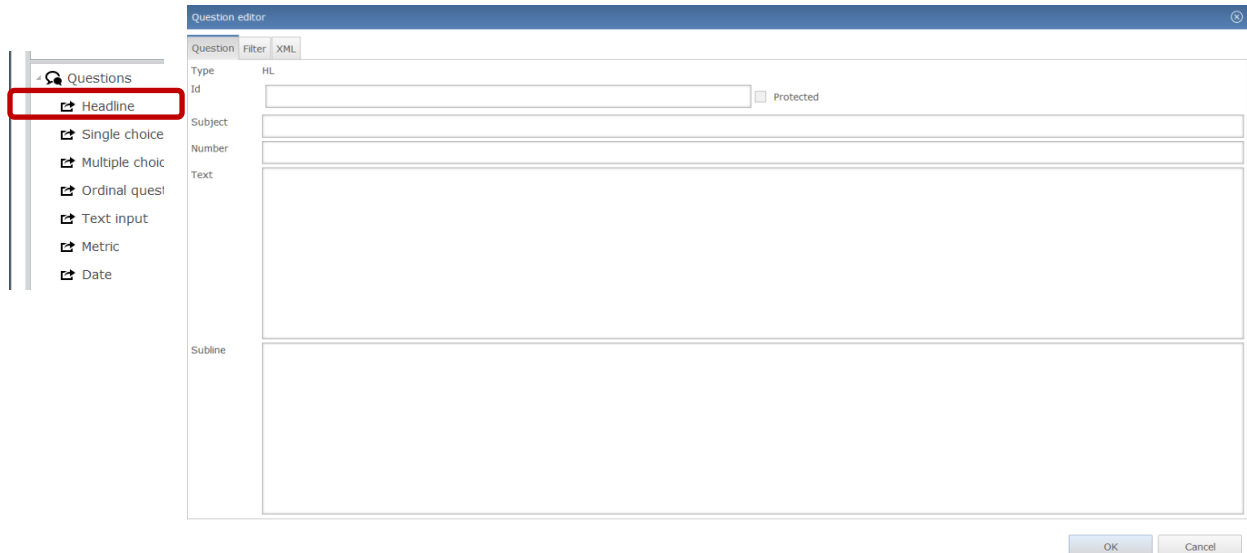
To program several questions, you will need to insert the questions one after another in the order you want them to appear in the questionnaire. You can change the order of the questions within the questionnaire structure panel by clicking and holding the left mouse button and dragging the questions to the required place. You can move questions both within one page and from one page to another if necessary.

There are different types of questions:
- Headline;
- Single choice;
- Multiple choice;
- Ordinal;
- Text input;
- Metric;
- Date.

HL – Headline

The element HL helps to create a headline in the questionnaire. It can be added by clicking on the icon Headline (HL) and dragging it to the required page of your questionnaire. Below you can see the window 'Question editor' for the Headline of a questionnaire, in which you are presented with a series of dialogue boxes where the details of the headline are to be determined and typed in:

By filling in this form you can create the headline for the first part of your questionnaire.

Id – a unique identity for referencing. The ID is to be set manually. You can start an ID, for example, with the first letter of the alphabet, but you can decide for yourself what form of ID you want to provide. As a rule, the ID should correspond to the variable name, so that one can track in the future which ID belongs to which question. Thus you can use the ID 'VA', where V stands for variable and A for the first part of your questionnaire/the first letter in the alphabet.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis. In this case it could be, for example, 'Study at VET/HE Institution'.

Number – the sequence number that is shown on the left side of the question in the questionnaire next to the headline text. If you started with the first letter of the alphabet, indicate 'A' here.

Text – the headline text itself.

Subline – additional information for the respondents, if applicable.

You can confirm the entered information with the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.

Type of question: SC

SC – adds a single choice or a categorical variable question to the questionnaire. To add an SC question just click on the icon 'Single choice (SC)' and drag it to the required page of your questionnaire. Below you can see the window 'Question editor' for the single choice question, which shows you the structure of the question. You can enter the relevant information in the presented series of dialogue boxes.

Edit the question and the answer options according to your needs or that of your paper questionnaire. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. If you started your first questionnaire part with the ID 'A', then you can number your questions in section A correspondingly – A1, A2, and so on. Thus, you can use the ID 'VA2', where V stands for variable, A for the first part of your questionnaire and 2 for the sequence number of your question.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Number – the sequence number that is shown on the left side next to the headline text. If you started with the first letter of the alphabet, you can indicate 'A2' here.

Text – the question text itself.

Subline – additional information for the respondents, if applicable.

Layout – one of the variants for displaying the answer options within the question. Two possibilities are offered – 'Radioboxes' and 'Pulldown'. If the radioboxes option is selected, the various responses are displayed one after another, preceded by a radio-type button: . Alternatively you can replace the radioboxes option with a pulldown list of answers. A pulldown menu is especially useful for SC questions with a long list of options. For a short list of options radioboxes are recommended.

Variable – a variable name assigned to the question which can be used later during the data analysis. The variable name appears automatically after indicating the ID and Number of a question.

Categories – the value which each variable can hold or, to put it simply, the response items of the question. The example question contains three categories (three items). You can define the categories by clicking with the left mouse button on the first small field under 'Key' and indicating the number of the item (starting from 1 and proceeding sequentially). 'Label' provides the definition for the category – the item name. By clicking the left mouse button on the second field under 'Label' and indicating the label of the item you create your response items.

In the case that your last response item provides a respondent with the possibility of entering their own answer (i.e. one that is not given in the listed answer options), you can indicate the last category as 'Other (please specify):' and insert this combination [_____] (square brackets + underline → key combination: Ctrl+Alt+8 to open a square bracket → Shift + underline button to be pressed 5 times → Ctrl+Alt+9 to close a square bracket), which provides an integrated text field next to your item.

Question	Filter	XML

Type CV
Id
    VA2

Subject   Achieved qualification

Number   A2

Text   Which qualification did you achieve at the VET/HE institution?

Subline

Layout   Radioboxes

Variable   VA2

Categories

Key	Label
1	Certificate
2	Diploma
3	Other (please specify): [_____]

You can confirm the entered information with the 'OK' button. The question will appear automatically in the questionnaire structure panel and in the preview screen.
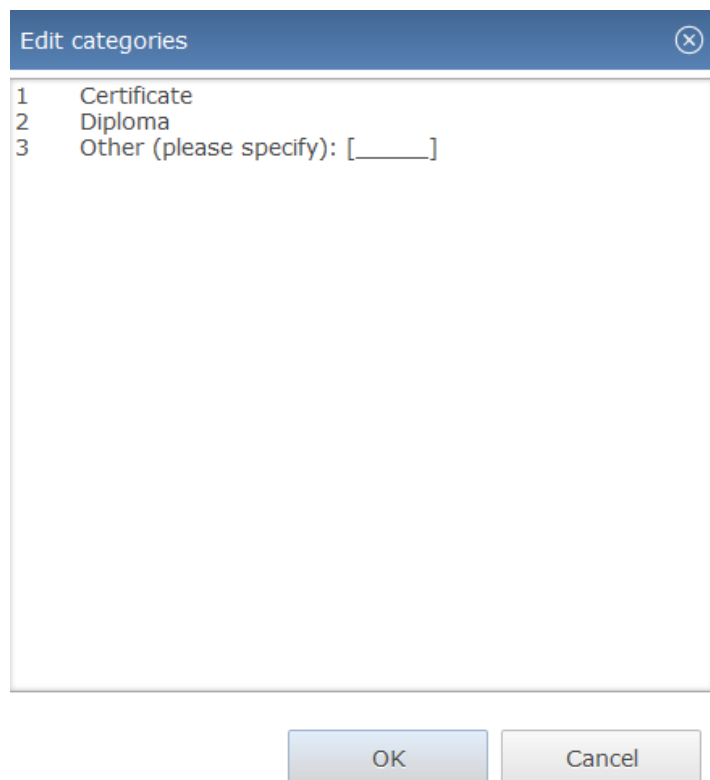
▲ Page 2

| HL - VA |
| OR - V1 |
| SC - VA2 |

VA2

A2   Which qualification did you achieve at the VET/HE institution?
    ○ Certificate
    ○ Diploma
    ○ Other (please specify): _____

If you want to edit your categories at a later date, you can open the 'Question editor' of a particular question by double clicking on the question within the questionnaire structure panel and with the help

Categories

of the command 'Edit categories' [✏] you can edit the existing items or add more if necessary. Further items can be added by typing them directly into the 'Edit categories' view, or you can copy the keys and labels of the categories from an Excel document and paste them into the 'Edit categories' view. The written or copied and pasted information can then be confirmed using the 'OK' button. This will lead to the automatic update of the categories within the window 'Question editor'. After pressing the 'OK' button located in the 'Question editor' window, the categories of the question will be updated and the results can be seen within the preview screen and online.

Categories

[✏]

One mouse click will bring up the window 'Edit categories' →

Edit categories ⊗

1   Certificate
2   Diploma
3   Other (please specify): [_____]

OK   Cancel

Type of question: MC

MC – adds a question that can have more than one reply. To add an MC question just click on the 'Multiple choice (MC)' icon and drag it to the required page of your questionnaire. Below you can see the 'Question editor' window of the multiple choice question, which shows you the structure of the question. The relevant information can be entered into the dialogue boxes presented here.

Edit the question and the answer options according to your needs. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. You can decide for yourself what ID you would like to set. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. If you started your first questionnaire part with the ID 'A', then you can number your questions in section A correspondingly – A1, A2, and so on. Thus, you can use the ID 'VA3', where V stands for variable, A for the first part of your questionnaire and 3 for the sequence number of your question.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Number – the sequence number that is shown on the left side next to the headline text. If you started with the first letter of the alphabet, you can indicate 'A3' here.

Text – the question text itself.

Subline – additional information for the respondents, if applicable.

Layout – one of the variants for displaying the answer options within the question. Two possibilities are offered – 'Checkboxes' and 'Pulldown'. By selecting the 'checkboxes' option, the response variants are displayed one after another, preceded by a checkbox-type button: . Alternatively, instead of checkboxes you can use a pulldown menu. Pulldown menus are very useful for MC questions with a long list of options. For short lists checkboxes are recommended.

Variables – a variable name assigned to each answer option with the indication of the variable label. The variable for each answer option appears automatically after indicating the ID, the Number of a question and the key of each answer option.

The example question contains seven variables (7 response items). You can define the variables by clicking the left mouse button on the first small field under 'Key' and indicating the number of the item (starting from 1 and proceeding sequentially). 'Label' provides the definition for the variable – so that the item name is provided and the results are easier to interpret. By clicking the left mouse button on the second field under 'Label' and indicating the label of the item you create your response items.

In the case that your last response item provides participants with the possibility of entering a response that is not available in the listed answer options, you can indicate the last category as 'Other (please specify):' and insert this combination [_____](square brackets + underline → key combination: Ctrl+Alt+8 to open a square bracket →Shift + underline button to be pressed 5 times → Ctrl+Alt+9 to close a square bracket), which provides an integrated text field next to your item.

Question	Filter	XML			
Type	MD				
Id	VA3			☐ Protected	
Subject	Connections/contacts to the VET/HE institution				
Number	A3				
Text	What kind of connections/contacts do you have to the VET/HE institution?				
Subline	Multiple answers possible				
Layout	Checkboxes				

	Key	Label	Variable	
✎	1	Newsletter	VA3_1	
	2	Graduate meetings	VA3_2	
	3	Foundation/support of a graduates' association	VA3_3	
	4	Stimulation of professional co-operation	VA3_4	
	5	Help regarding professional and social problems	VA3_5	
	6	I have no contacts to the VET/HE institutions	VA3_6	
	7	Other (please specify): [_____]	VA3_7	

You can then confirm the entered information with the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.

A3   What kind of connections/contacts do you have to the VET/HE institution?

Page 2

HL - VA

SC - VA2

MC - VA3

Multiple answers possible

☐ Newsletter
☐ Graduate meetings
☐ Foundation/support of a graduates' association
☐ Stimulation of professional co-operation
☐ Help regarding professional and social problems
☐ I have no contacts to the VET/HE institutions
☐ Other (please specify):

If you want to edit your variables at a later date, you can open the 'Question editor' of a particular question by double clicking on the question within the questionnaire structure panel, and with the help of the command 'Edit categories' ✎ you can edit the items, adding more if necessary. You can add more items by typing them directly into the 'Edit categories' view, or you can copy the keys and labels of the categories from the Excel document and paste them into the 'Edit categories' view. The new information can then be confirmed using the 'OK' button. This will lead to the automatic update of the categories within the window 'Question editor'. After clicking on the 'OK' button located in the 'Question editor' window the categories of the question will be updated and the results can be seen within the preview screen and online.

Variables

✎

One mouse click will bring up the window 'Edit categories'

→

Edit categories ⊗

1   Newsletter
2   Graduate meetings
3   Foundation/support of a graduates' association
4   Stimulation of professional co-operation
5   Help regarding professional and social problems
6   I have no contacts to the VET/HE institutions
7   Other (please specify): [_____]

OK   Cancel

Type of question: OR

OR – an ordinal question is one where the answers can be assessed within a given scale.

To create an OR question, just click on the icon 'Ordinal question (OR)' and drag it to the required page of your questionnaire. Below you can see the 'Question editor' window of the ordinal variable question, showing the structure of the question. The relevant information can be entered into these dialogue boxes.

Edit the question and the answer options according to your needs or those of your paper questionnaire. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. If you started your first questionnaire part with the ID 'A', then you can number your questions in section A correspondingly – A1, A2, and so on. Thus, you can use the ID 'VA4', where V stands for variable, A for the first part of your questionnaire and 3 for the sequence number of your question.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Number – the sequence number that is shown on the left side next to the headline text. If you started with the first letter of the alphabet, you can indicate 'A4' here.

Text – the question text itself.

Subline – additional information for the respondents, if applicable.

Categories – allows the creation of the scale according to which the items can be assessed. You can generate the scale by clicking the left mouse button on the first small field under 'Key' and indicating the first scale number (starting from 1 and proceeding sequentially. The numbering of the scale cannot start with 0). The 'Label' category provides the definition for the scale number. Usually only the first and the last scale numbers are defined with text (for example, within a 5-point-scale 1 is 'very good' and 5 is 'very bad', or the other way round). By clicking the left mouse button on the second field under 'Label', and indicating the label of the item, you define the text for your scale. After providing the first range in the scale, the opportunity to add another one will appear automatically. The categories between 1 and 5 may not be labelled with words as numbers are sufficient. However, you can decide for yourself, whether these categories should be labelled in your questionnaire or not.

Variables – a variable name assigned to each answer option, with an indication of the variable label.

The example question contains three variables (3 response items). You can define the variables by clicking the left mouse button on the first small field under 'Key' and indicating the number of the item (starting from 1 and proceeding sequentially). The 'Label' provides the definition for the variable – or simply the name of the response item. Thus, by clicking the left mouse button on the second field under 'Label' and indicating the label of the item, you create your response items. The variable for each answer option appears automatically after indicating the ID, the Number of a question and the key of each answer option.

Question	Filter	XML

Type	OR
Id	VA4
Subject	Reasons for study at the VET/HE institution
Number	A4
Text	To what extent were the following reasons important for your decision to study at the VET/HE institution?
Subline	Please respond to each factor on the five-point scale

Categories

Key	Label	
1	Not at all important	
2		
3		
4		
5	Very important	

Variables

Key	Label	Variable
1	Vicinity to home of parents or other relatives	VA4_1
2	Availability of scholarship	VA4_2
3	Availability/quality of accommodation	VA4_3

You can then confirm the entered information with the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.

In the case that you want to edit your categories or variables at a later date, you can open the 'Question editor' of a particular question by double clicking on the question within the questionnaire structure panel, and with the help of the command 'edit categories' you can edit the items, adding more items if necessary.

Type of question: TE

TE – this question type requires text input. An individual answer is needed and thus no preformatted variants of the response are offered. The variable can handle a large number of characters. To add a TE question just click on the icon 'Text input (TE)' and drag it to the required page of your questionnaire. Below you can see the 'Question editor' window of the TE question, showing the structure of the question. The relevant information can be entered into the presented series of dialogue boxes.

Edit the question and the answer options according to your needs. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. For example, if you programme a question in the second part of your questionnaire with the ID 'B', then you can number your questions in section B correspondingly – B1, B2, and so on. Thus, you can use the ID 'VB1', where V stands for variable, B for the second part of your questionnaire and 1 for the sequence number of your question in the second part.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Number – the sequence number that is shown on the left side next to the headline text. If you are in the second part of your questionnaire you can use the second letter of the alphabet and indicate 'B1' here.

Text – the question text itself.

Subline – additional information for the respondents, if applicable.

Variables – a variable name assigned to the text field with the optional indication of the label.

You can either simply formulate the question text and define one text field (one variable) without labelling it, or you can also provide the labelling. The example question contains one variable (1 text field). You can define the variable by clicking the left mouse button on the first small field under 'Key' and indicating the number of the item (starting from 1 and proceeding sequentially). The 'Label' provides the definition for the variable, so that the item name is provided. By clicking the left mouse button on the second field under 'Label' and indicating the label of the item, you create your response items. This part is, however, optional. The variable for each answer option appears automatically after indicating the ID and the Number of a question.

Text length – indication of the length of the text. You can define the text length according to the characters. It can be 50, 100 or more, depending on how detailed the answer is supposed to be.

Lines – definition of the size of the text field, that is, how many lines it should contain.

Question editor:

You can confirm the entered information with the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.

Without definition of the label:

With definition of the label:

If you want to edit your variables at a later date, you can open the 'Question editor' of a particular question by double clicking on the questi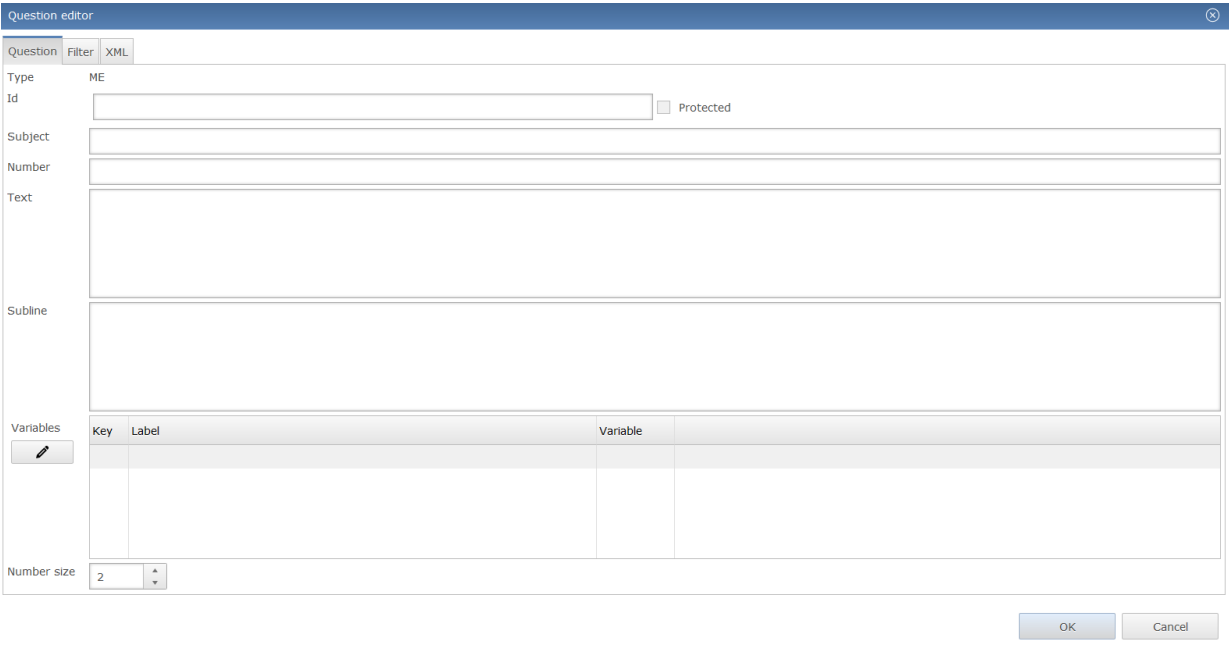on within the questionnaire structure panel, and with the help of the command 'edit categories' [Variables ✎] you can edit the items, adding more if necessary.

Type of question ME

ME (metric) – this question type allows numerical input.

To add an ME question, just click on the icon 'Metric (ME)' and drag it to the required page of your questionnaire. Below you can see the "Question editor" window for the ME question, showing you the structure of the question. The relevant information can be entered into the presented series of dialogue boxes.

Edit the question and the answer options according to your needs. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. You can decide for yourself what ID you would like to set. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. For example, if you program a question in the second part of your questionnaire with the ID "B", then you can number your questions in the section B correspondingly – B1, B2 and so on. Thus, you can use the ID "VB2", where V stands for variable, B for the second part of your questionnaire and 2 for the sequence number of your question in the second part.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Number – the sequence number that is shown on the left side next to the headline text. If you are in the second part of your questionnaire you can use the second letter of the alphabet and indicate "B2" here.

Text – the question text itself.

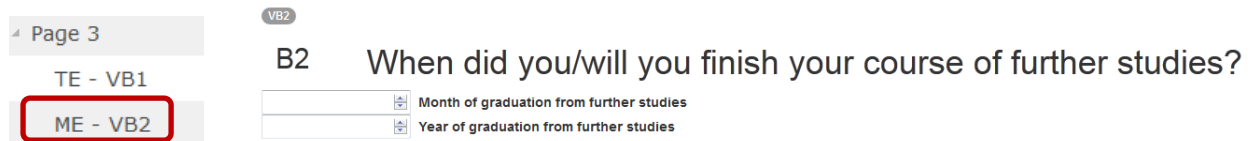**Subline** – additional information for the respondents, if applicable.

Variables - a variable name assigned to each answer option with the indication of the variable label. In the example there are two items – "Month" and "Year". You can define the variable by clicking the left mouse button on the first small field under "Key" and indicating the number of the item (starting from 1 and proceeding sequentially). The "Label" provides the definition for the variable, that is, the item name (e.g. "Month"). Thus, by clicking the left mouse button on the second field under "Label" and indicating the label of the item, you create your response items. The variable for each answer option appears automatically after indicating the ID, the Number of a question and the key of each variable.

Number size – definition of the number of digits the answer box should contain. In the case of month and year no more than four digits are necessary, and the size is set to 4.

Type	ME		
Id	VB2		
Subject	End of course of further studies		
Number	B2		
Text	When did you/will you finish your course of further studies?		
Subline			

Variables	Key	Label	Variable
✎	1	Month of graduation from further studies	VB2_1
	2	Year of graduation from further studies	VB2_2

| Number size	4

You can confirm the entered information using the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.

Type of question: DATE

A DATE (metric) type of question allows numerical input in the form of a date.

To create a DATE question, just click on the 'DATE' icon and drag it to the required page of your questionnaire. Below you can see the 'Question editor' window for the DATE question, which shows its structure. You can enter the relevant information into the dialogue boxes presented here.
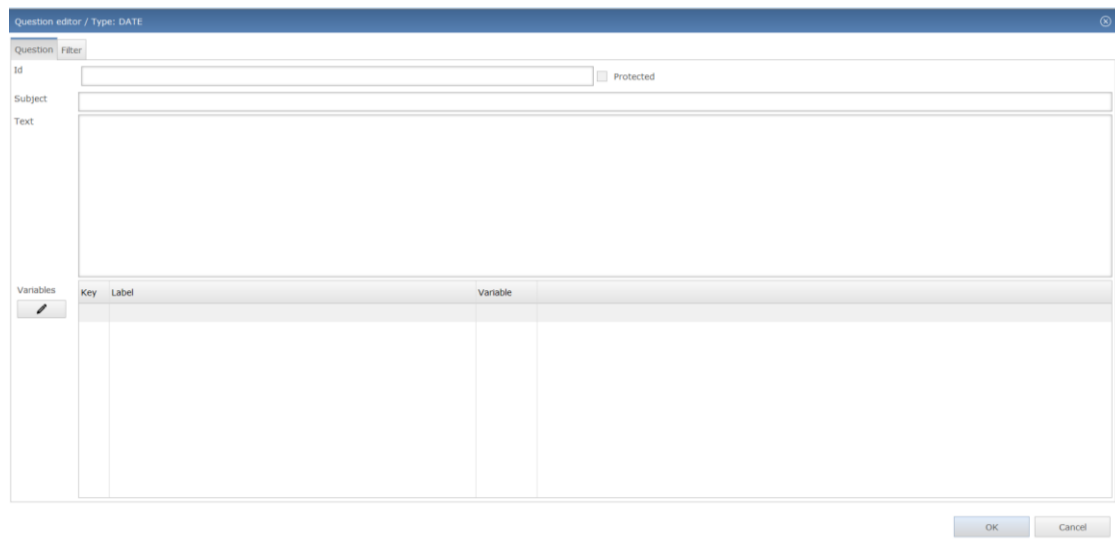
Edit the question and the answer options according to your needs. You can also copy a question from a text file or Word document and paste it directly into the relevant field. The following information needs to be filled in here:

Id – a unique identity for referencing. The ID is to be set manually. You can decide for yourself what ID you would like to set. As a rule, the ID should correspond to the variable name, so that in the future you can track which ID belongs to which question. For example, if you program a question in the second part of your questionnaire with the ID 'B', then you can number your questions in section B correspondingly – B1, B2, B3 and so on. Thus, you can use the ID 'VB3', where V stands for variable, B for the second part of your questionnaire and 3 for the sequence number of your question in the second part.

Protected – a small box at the end of the ID field. It can be used, for example, by the administrator to protect a particular question. When you protect a question it means that other users will not be able to change it.

Subject – the theme of the question. The subject can serve later as a headline for your tables and graphics during the data analysis phase.

Text – the question text itself as it will appear.

Variables – a variable name assigned to each answer option with the indication of the variable label.

The example question contains one variable. You can define the variables by clicking the left mouse button on the first small field under 'Key' and indicating the number of the item (starting from 1 and proceeding sequentially). The 'Label' provides the definition for the variable – so that the item name is provided and the interpretation of the results is made clearer. By clicking the left mouse button on the second field under 'Label' and indicating the label of the item, you create your response items (in this case 'born').
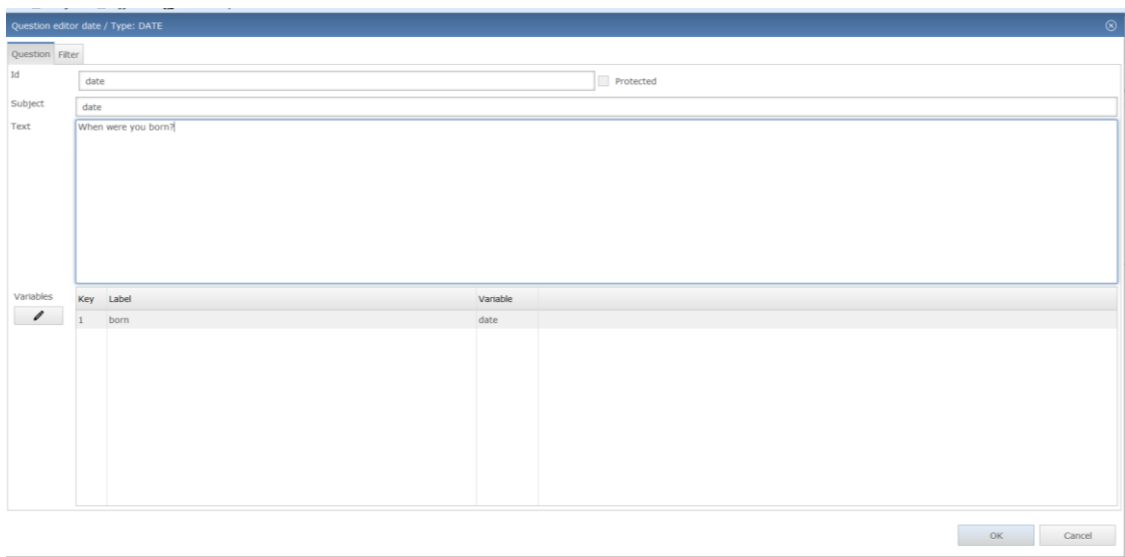
You can confirm the entered information using the 'OK' button. The question will appear automatically in the second questionnaire panel and in the preview window.
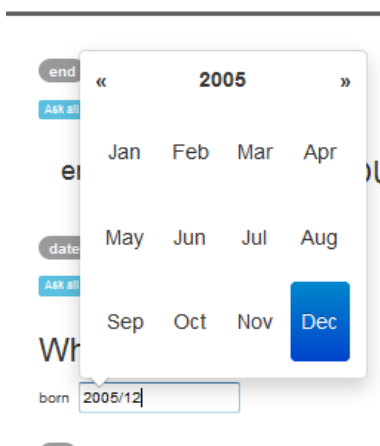
QTAFI will display a calendar for the user to choose the relevant month and year, in this case when she or he was born.

In the event that you want to edit your variables at a later date, you can open the 'Question editor' of a particular question by double clicking on the question within the questionnaire structure panel, and with the help of the command 'edit categories' you can edit the items, adding more if necessary. You can add more items by typing them directly into the 'Edit categories' view or you can copy the keys and labels of the categories from an Excel document and paste them into the 'Edit categories' view. You can then confirm the new information with the 'OK' button. This will lead to an automatic update of the categories within the window 'Question editor'. After clicking the 'OK' button located in the 'Question editor' window, the categories of the question will be updated and the results can be seen within the preview screen and online.
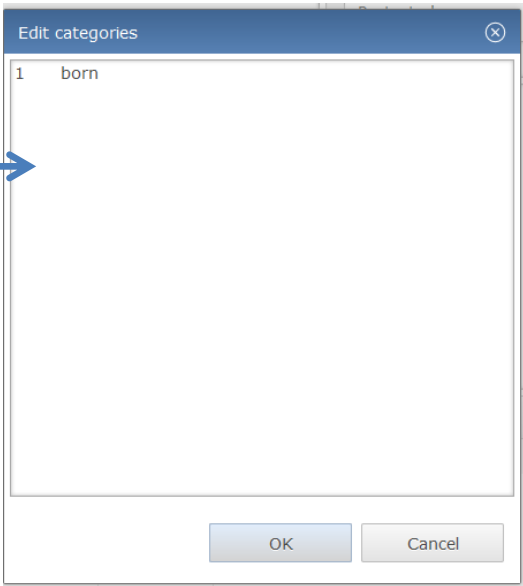
Creating a filter

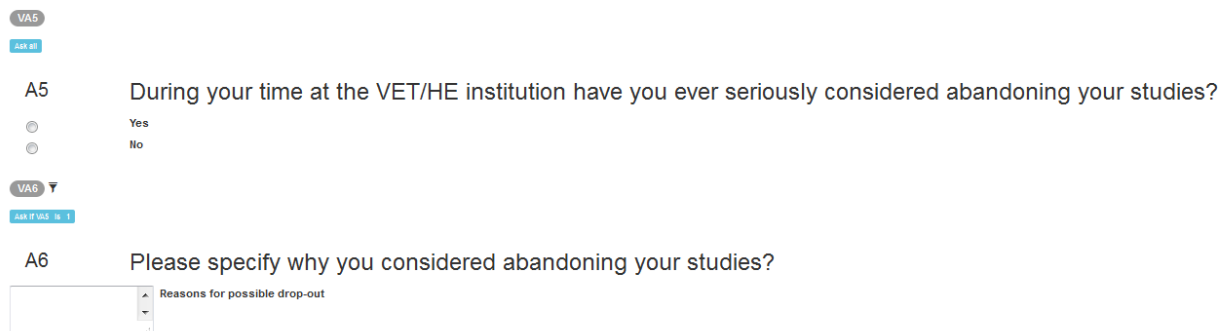Every questionnaire can contain filters. Within the *filter* node there can be several filter instructions. If one of the filter conditions is true, the element will be skipped. The filter function in online QTAFI is used to show or hide certain questionnaire elements. The most frequent use of filter is to show or hide question(s) based on respondent answer to a certain question. For example, if a respondent answers 'Yes' to a question about the availability of internships during study, the relevant question about these internships will automatically appear. This 'smart-branching' will reduce the complexity of the questionnaire layout and will also help the respondents in filling out the online questionnaire.

The filter element is available in the 'Question editor' window of each question.
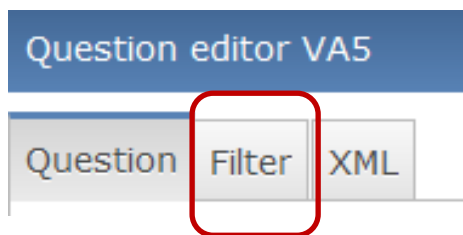
In the following example, if a respondent answers 'Yes' to question A5 'During the course of your studies, have you ever seriously considered abandoning your studies?', question A6 'Please specify, why you considered abandoning your studies?' will appear. If the answer to question A5 is 'No', question A6 will not appear – it will be filtered.

To implement the filter you have to first program the corresponding questions – in the example here questions A5 and A6. Afterwards set the filter element within question A6 – the question to be filtered. To do this, open question A6 by double clicking on this question within the questionnaire structure panel. This will bring up the 'Question editor' for question A6. Go to the 'Filter' tab within this question editor.
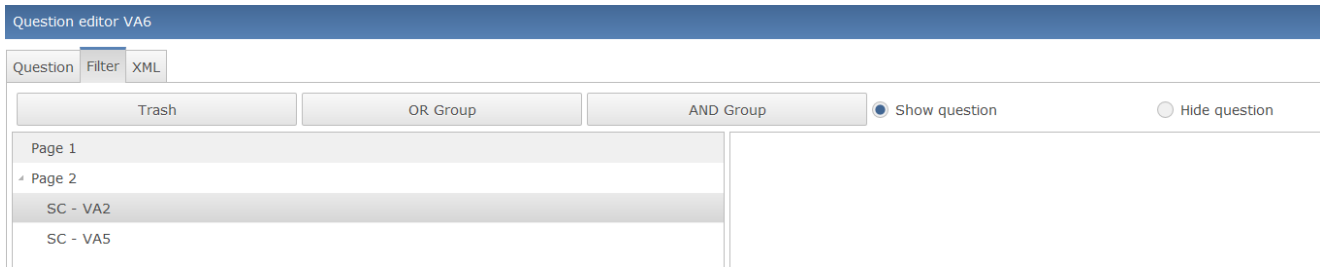
On the left side of the Filter panel the pages and the questions of your questionnaire are displayed. You will not see all pages here – only the page in which you are currently working and, if available, the previous page. As the example question A5 is programed at page 2, page 1 and page 2 with its questions are displayed.

On the right side you define the filter. You can choose here whether you want to set the filter to 'show question' or 'hide question'.
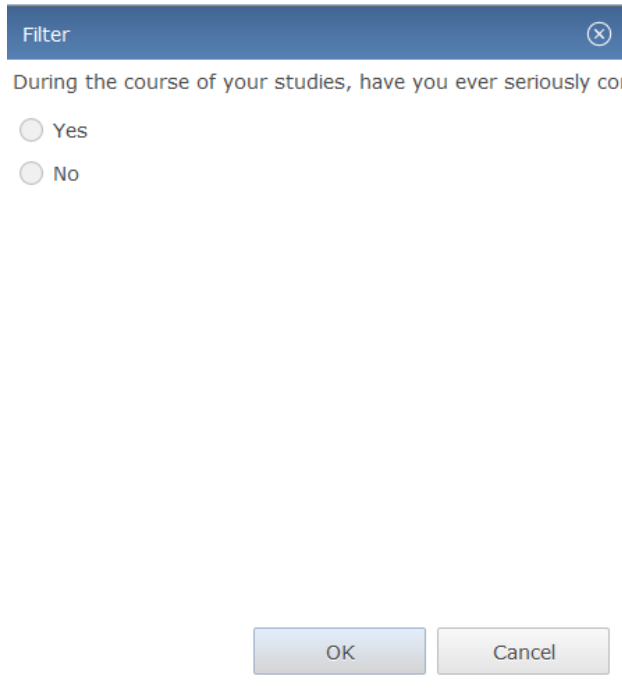
As question A5 is used as the base of the filter, click on question A5 (SC-VA5) and pull it to the empty window on the right side. On the right side you specify the filter command. Once the question is on the right side, double click on it → this will bring up a small window 'Filter', in which the question with the answer options will be displayed, and where you need to define the value (response item) to be filtered. If the filter command is 'Show question' then you need to select the response item 'Yes' → meaning that the following question will be shown if respondents answer 'Yes'. If your filter command is 'Hide question' then you need to select the response item 'No' → meaning that the following question will not be shown (it will be hidden) if respondents answer 'No'.

Filter 'Show question':

1) Drag the question to the right side:

2) Double click on this question variable to bring up this window:

Filter ⊗

During the course of your studies, have you ever seriously cor

○ Yes

○ No

OK   Cancel

3) Define the response item to be filtered – here answer 'Yes':

Filter ⊗

During the course of your studies, have you ever seriously cor

● Yes

○ No

4) Confirm with the 'OK' button. Here you will see the result:

AND Group   ● Show question

VA5: Yes

Filter 'Hide question':

1) Drag the question to the right side:
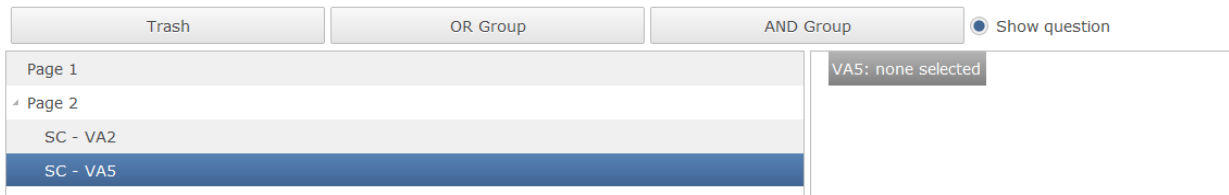
Trash	OR Group	AND Group	⦿ Show question
Page 1			VA5: none selected
⊿ Page 2			
SC - VA2			
SC - VA5			

2) Double click on this question variable to bring up this window:

Filter ⊗

During the course of your studies, have you ever seriously cor

○ Yes

○ No

OK   Cancel

3) Define the response item to be filtered – here answer 'No':

Filter ⊗

During the course of your studies, have you ever seriously cor

○ Yes

⦿ No

4) Confirm with the 'OK' button. Here you will see the result:

AND Group	○ Show question	⦿ Hide question
	VA5: No	

Within the preview screen a question which is filtered is marked with the filter sign ▼

VA6 ▼

Ask if VA5 is 1

A6   Please specify why you considered abandoning your studies?

[text box] ▲ Reasons for possible drop-out
            ▼

It is also possible to filter several questions at once or to filter the whole section of the questionnaire taking as a basis several items of a question. For example, you can filter the whole page containing questions of a particular section basing on the respondents' answers to, for example, a multiple choice question. For this, the filter command OR-Group can be applied.

Filter 'OR group:

In the following example, if a respondent choses the answers 1 'employment', 2 'self-employed/freelance work', 3 'occasional job' and 4 'internship' to question V023 'What applies to your current situation?', page 9/section H containing various questions about 'work requirements' will appear. If the answers to question V023 are from 5 to 10 (further academic education, further vocational training, family care, not employed, but searching for a job, military or civil service, or other), section H/page 9 will not appear – it will be filtered.

V023

Ask all

G1   What applies to your current situation?

Multiple answers possible

☐   Employment
☐   Self-employed / freelance work
☐   Occasional job (just to earn money)
☐   Internship
☐   Further academic education (higher education)
☐   Further vocational training
☐   Housewife, househusband, family care
☐   Not employed, but searching for a job
☐   Military or civil service
☐   Other (please specify): [text box]

⬇

Page 9

H   WORK REQUIREMENTS

V028

Ask all

H1   To what extent are the following skills / competencies required in your current employment?

Not at all				To a very high extent	
1	2	3	4	5	
○	○	○	○	○	Mastery of my field/subject specific knowledge
○	○	○	○	○	Ability to develop new ideas and solutions
○	○	○	○	○	Ability to adapt to changing conditions
○	○	○	○	○	Analytical thinking
○	○	○	○	○	Willingness to question my and others' ideas
○	○	○	○	○	Ability to work efficiently towards a goal
○	○	○	○	○	Ability to organise my work processes efficiently
○	○	○	○	○	Ability to work productively with others
○	○	○	○	○	Ability to perform well under pressure

To implement the filter you have to first program the corresponding section with its questions – in the example here questions G1 and page 9/section H 'Work requirements'. Afterwards set the filter element within page 9 – the page to be filtered. To do this, open page 9 by double clicking on this page within the questionnaire structure panel. This will bring up the 'Question editor' for page9. Go to the 'Filter' tab within this question editor.

Question editor P9 / Type: Page

| Question | Filter |

| Trash | OR Group | AND Group | ● Show question |

Page 1
▸ Page 2
▸ Page 3
▸ Page 4
▸ Page 5
▸ Page 6
▸ Page 7
▸ Page 8

On the right side you define the filter. You can choose here whether you want to set the filter to 'show question' or 'hide question', as well as whether you need to use 'OR-group' or 'AND-group' filter. OR-group means that a particular question or questions will be shown or hidden if one of the items within the group defined is chosen. It means that if from the example question V023 a least one of the first four items is chosen by the respondents, the section H/page 9 will appear.

To implement the OR-group filter, click on 'OR-group' and pull it to the empty window on the right side. As question V023 is used as the base of the filter, click on question V023 (MC-V023) and pull it to the OR-group filter on the right side. As in this case you need to filter 4 items, you will need to pull the

question V023 to the OR-group filter on the right side 4 times. Once the question is on the right side, you will see a little triangle next to the filter command 'OR-group' meaning that this filter contains several items. Click on the triangle and you will see the question V023 four times. Double click on each one → this will bring up a small window 'Filter', in which the question with the answer options will be displayed, and where you need to define the value (response item) to be filtered. If the filter command is 'Show question' then you need to select first the response item 'Employment' and click the 'OK' button → meaning that the section H will be shown if respondents answer 'Employment'. Then double click on the second question item V023 and select 'self-employed/freelance work' and so on.

OR-Group   .

⊿ OR-Group

    V023: none selected

    V023: none selected

    V023: none selected

    V023: none selected

⊿ OR-Group

    V023: Employment

    V023: Self-employed / freelance work

    V023: Occasional job (just to earn money)

    V023: Internship
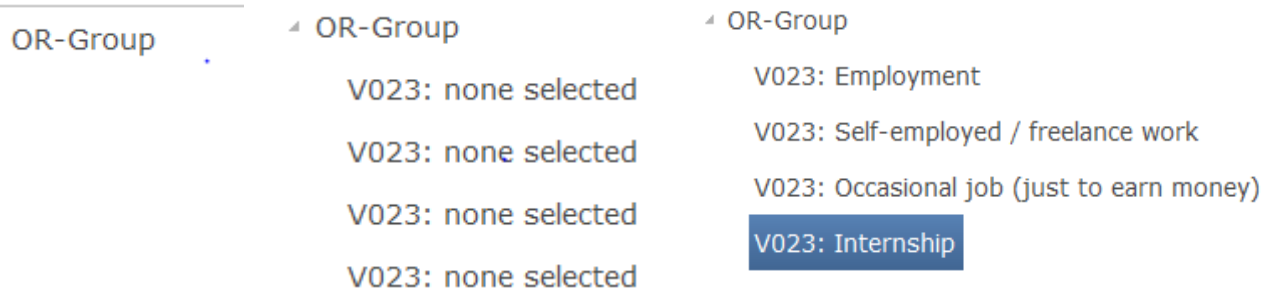
After selecting the items to be filtered press the 'OK' button. The filter is created. If you double click again on the page 9 to see the filter, it will be presented in the following way:

⊿ P9: OR-Group

    P9: V023_1 is 1

    P9: V023_2 is 1

    P9: V023_3 is 1

    P9: V023_4 is 1
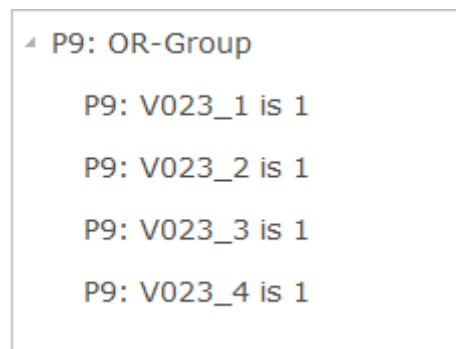
2.2.4 Head and foot of an online questionnaire

The questionnaire structure panel also comprises a 'Head' and a 'Foot' element. The head and foot elements contain the *navigation buttons* and the *progress bar*. The content of the head element appears at the top of each page and the foot at the bottom.

Navigation button

To create the navigation button, click on 'Navigation button' under 'Advanced components' in the admin field of the questionnaire panel (left side) and, holding the left mouse button, drag the element

into the head. By doing this you will insert the navigation button element into the head of your questionnaire.

At this point a new 'Question editor' window will appear, in which you are presented with a series of dialogue boxes where the details of the navigation buttons can be determined.

Question editor:

Within the question editor the following information should be provided:

Id – the identity of the question for referencing. You can decide for yourself how you would like to label the ID. One of the possibilities is 'VNB', where V stands for variable and NB for navigation button.

Button next – the labelling of the navigation button 'Next'. Here the navigation button can be defined according to your preference; for example, 'next page', 'next', 'forward', and so on.

Button previous – the labelling of the navigation button 'Previous'. Here the navigation button can be defined according to your preference; for example, 'previous page', 'back', and so on.

After entering this information confirm it using the 'OK' button. As a result you will see the navigation buttons in the preview at the top of your questionnaire and the navigation button element under 'Head' in the questionnaire structure panel.

Progress bar

To create the progress bar, click on the button 'Progress bar' under 'Advanced components' in the admin field of the questionnaire panel (left side) and, holding the left mouse button, drag the element into the Head. By doing this you will insert the progress bar element in the head of your questionnaire.

At this point a new 'Question editor' window will appear in which you need to define only one aspect – the ID. You can decide for yourself you would like to label the ID. One of the possibilities is 'VPB', where V stands for variable and PB for progress bar.

Question editor:

After entering this information confirm it by clicking the 'OK' button. As a result you will see the progress bar in the preview at the top of your questionnaire and the progress bar element under Head in the questionnaire structure panel.

2.2.5 Foot of an online questionnaire

The questionnaire structure panel comprises in addition a Foot element. The Foot element is applied for the *navigation buttons* and other relevant information, if applicable: contact details, data protection, FAQs.

Inserting navigation buttons at the foot of the questionnaire is optional. In case you would like to have the navigation buttons at the top and bottom of your questionnaire to make it more user-friendly, you can create navigation buttons under Foot. To create navigation buttons refer to the chapter above.

2.2.6 Back page
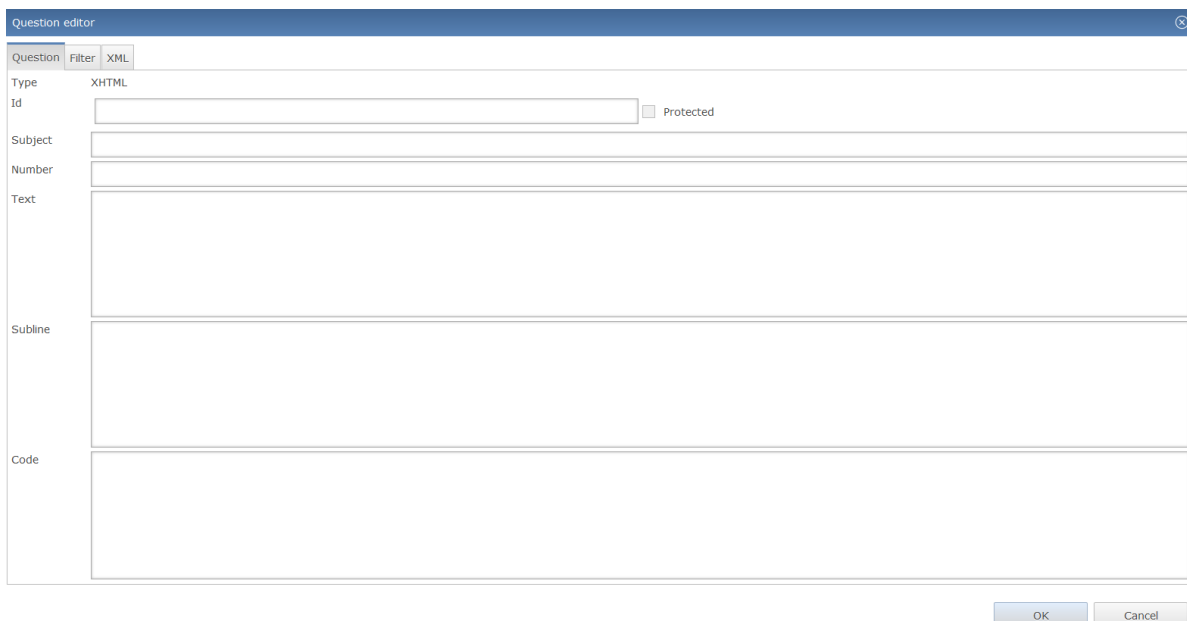
The back page represents the last page of the online questionnaire. It usually contains a completely filled in progress bar indicating the end of the survey; some text expressing gratitude for the respondents' participation along with any other applicable information; the navigation button which allows the respondent to go back to the beginning of the questionnaire if needed; and any information required with regard to FAQs, contact details and data protection, which is available in the Foot of every questionnaire page. The back page can contain additional elements and can be adapted according to your needs.

This last page is important since QTAFI will store all the information before the final page, so *it is vital that you don't include a question on the final page*!

To create the closing text on the back page you need to open 'HTML element (XHTML)', which is found under 'Advanced components' in the admin field of the questionnaire panel (left side). Click on 'HTML element' and, holding the left mouse button, drag the element into the last page.

At this point a new 'Question editor' window will appear in which you are presented with a series of dialogue boxes where the details of the closing text are to be determined.

Question editor:

Within the HTML element the following information is to be indicated:

Id – the identity of the question for referencing. You can decide for yourself how you would like to label the ID. One of the possibilities is 'VLEADOUT' where V stands for variable, LEAD for leading part and OUT for the closing part of your survey.

Subline – contains the closing text of the survey: just type the text in the given box.

If you want to edit the text, for example by inserting line breaks in order to make the text more attractive and easier to read, specific tags can be applied. The <br/> tag inserts a single line break. If you want to insert a two-line break, just type the tag <br/> twice. See the example below:

Subline | Thank you very much for participating in this survey! Your data have been successfully stored. You will be informed of the results on the website of your higher education institution and the results will also be published in the local media.

If you wish to be part of the next GRADUATE SURVEY, check with the National Council of Higher Education website, your institution website and the local media

Confirm the entered information by clicking the 'OK' button. As a result you will see the HTML element under the last page (in the example Page 5) in the questionnaire structure panel and the text itself in the preview screen:
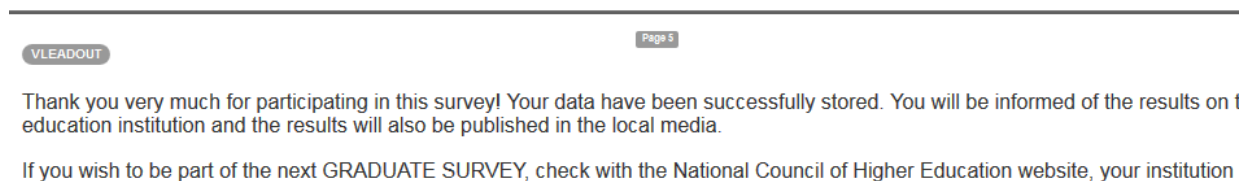
▲ Page 5

XHTML - VLEADOUT

VLEADOUT   Page 5

Thank you very much for participating in this survey! Your data have been successfully stored. You will be informed of the results on t education institution and the results will also be published in the local media.

If you wish to be part of the next GRADUATE SURVEY, check with the National Council of Higher Education website, your institution

or in the web browser:

Previous page

Thank you very much for participating in this survey! Your data have been successfully stored. You will be informed of the results on the website of your higher education institution and the results will also be published in the local media.

If you wish to be part of the next GRADUATE SURVEY, check with the National Council of Higher Education website, your institution website and the local media

Previous page

3. Survey responses

Once the survey is online you can observe the response rate in QTAFI's main menu. Under 'Responses' you can see the number of responses – in this case, how many graduates participated in the survey and answered questions. Under 'Authentication' you can see the response rate in percentage terms (see 'authentication' in section 1.3).

To view the dataset of the responses click on the number of responses within the 'Responses' field:

This will bring up the dataset of the responses:

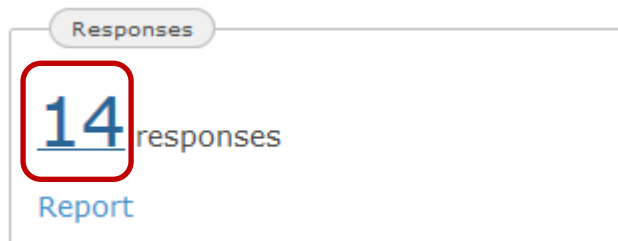|	__n	__pin	__id	__inited	__lastchange	__lastacces...	__maxacce...	__logins	__updatec...	__language	w1	VA3_2
Order by questionnaire	1	tKShsa	eac1149a-e...	2015-08-1...	2015-08-1...	3	3	1	4	de	1	-9
Export data	2	dWkk7K	f1f73088-6...	2015-08-1...	2015-08-1...	2	2	1	3	de	1	-9
Delete response	3	-9	3142cbf4-a...	2015-08-1...	2015-08-1...	4	4	1	7	de	-9	-9
	4	-9	5772a307-...	2015-08-1...	2015-08-1...	-1	-1	1	2	de	-9	-9
	5	h5SRpG	935d8b50-...	2015-08-1...	2015-08-1...	4	4	2	6	de	-9	-9
	6	gVl6zh	e76faf25-c...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	7	QvRzpH	b6a0fa06-9...	2015-08-1...	2015-08-1...	4	4	1	5	de	-9	-9
	8	bXLh5E	0a784409-...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	9	8maLSc	037de5ea-...	2015-08-1...	2015-08-1...	4	4	1	5	de	-9	-9
	10	sDRlmb	ed91f55c-d...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	11	w8KSv3	b3528bc9-...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	12	r6cGVE	bb65d668-...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	13	72DeCH	ae89c35e-7...	2015-08-1...	2015-08-1...	4	4	2	9	de	-9	-9
	14	BDYBQ6	66cd5cda-8...	2015-08-1...	2015-08-1...	4	4	1	5	de	-9	-9

You can then export the data and save it locally on your computer as a comma separated values document (.csv), which is fully compatible with many types of software. In order to undertake further analysis you can open the saved file with Excel, SPSS or a range of other programs. You also have the possibility of viewing the data in the order of the questionnaire structure. To do this you need to click on 'Order by questionnaire' in the upper left corner.

VA1	VA3	VA2_3_TE	VA2	VA4_1	VA4_2	VA4_3	VA4_4	VA4_5	VA4_6	VA4_7	VA4_8	VA4_9
-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9	-9
2	-9	-9	2	4	5	3	2	4	4	4	3	-9
1	2013/08	-9	1	4	5	4	3	5	5	5	4	-9
2	2015/06	Bachelor	3	2	4	4	2	1	5	5	4	-9
2	2011/06	-9	2	5	5	4	2	2	4	4	4	-9
1	2011/06	-9	2	4	4	4	3	3	3	5	5	5
1	2015/09	Bachelor	3	4	5	4	3	2	2	4	4	-9
2	2013/08	-9	2	4	4	3	3	3	4	4	4	4
2	2013/08	-9	2	4	4	4	5	5	5	5	5	-9
1	2013/08	-9	1	4	4	4	5	5	3	3	2	-9
1	2011/07	-9	1	5	5	2	2	5	5	5	5	5

Administrators can also delete survey responses. However, in order to avoid errors, managers and reporters do not have this option. We recommend, in any case, exporting the data and creating regular back-ups to avoid any potential loss of the data from QTAFI.

4. Data analysis

Once your survey is done and the graduates have filled in the questionnaire it is time to analyse the data. QTAFI also gives you the means of analysing the responses.

Under the command 'Report', found within the main menu of the software under 'Responses', you are led to the step of data analysis. The toolbars provided in the report properties of each question enable you to access simple tables and charts:

Responses

14 responses
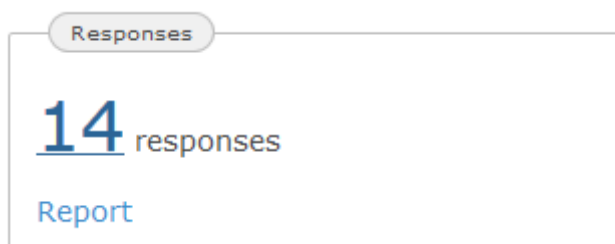
Report

When you click on 'Report' the following window will appear:

⬇ Export	▸ Page 1	
🖶 Printable	▸ Page 2	
	▸ Page 3	
	▸ Page 4	
	▸ Page 5	
	▸ Head	
	▸ Foot	

In the second column you can see the structure of your questionnaire, with all its pages, questions and elements. Click on the triangle next to the page to open that page, select one question to be analysed and by clicking the mouse button on it and dragging the question into the third column (the preview screen) you will then see a summary of the responses. The summary includes the ID of the question (VA2), the text of the question ('Which qualification …'), the statistic used (percentage or count), the missing cases (both in terms of the system – not answered due to a filter – or because of a lack of response by the graduate), and the type of question (single question…).

You also have the option of accessing a more detailed analysis of the questions. For this you need to click once in the sidebar within the preview screen: This will bring up a window showing the 'Report properties' which are set up for each type of question. At any point in viewing and analysing your data you can modify the data report in the following ways: **Count** (number of responses) can be chosen instead of **Percent**, and you can also create a **Chart** or table of the responses, with the added option of **Show totals** (in percentage or number, depending on your choice) in the table or chart. Just click in the command you want to activate and confirm your choices with the 'OK' button.

Here are some examples:

If you select 'Show: Count':

VA2 - Which qualification did you achieve at the VET/HE institution? count;

Certificate	3
Diploma	5
Other (please specify):	2

Missing cases 4
Total answers 10
Question type SC

If you select 'Show: Count' and 'Show totals':

VA2 - Which qualification did you achieve at the VET/HE institution? count;

Certificate	3
Diploma	5
Other (please specify):	2
Total	10

Missing cases 4
Total answers 10
Question type SC

If you click 'Show: Percent' and 'Chart':

VA2 - Which qualification did you achieve at the VET/HE institution? percent;

Missing cases 4
Total answers 10
Question type SC
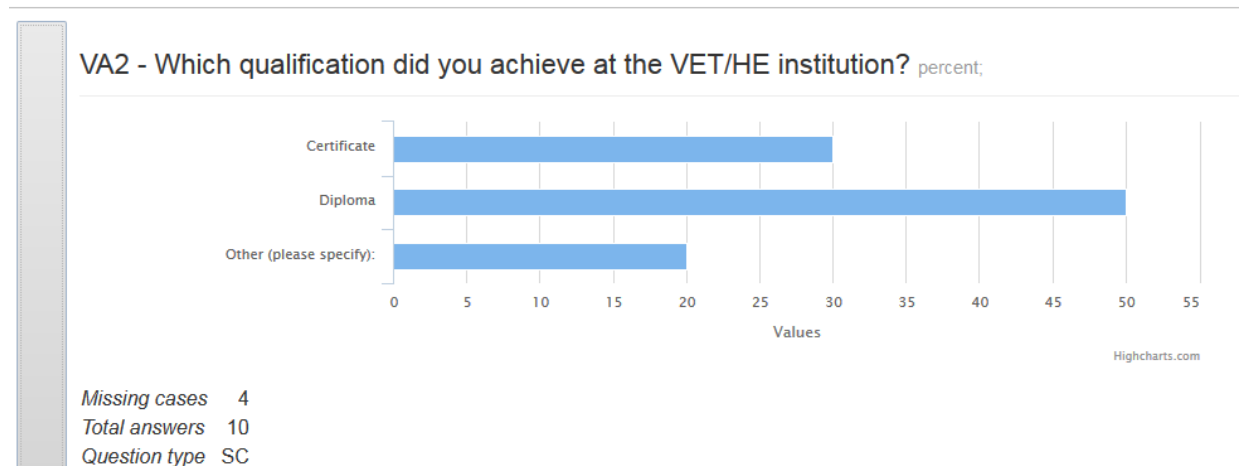
> ➢ **For ordinal questions (OR) the mean is also shown!**

Select the question and drag it into the preview screen. You will see the following table in which a mean is shown for each response item:

VA4 - How important were the following factors in choosing the higher education institution where you completed your study programme in 2011? mean;

Vicinity to home of parents or other relatives	4,0
Availability of scholarship	4,5
Availability/quality of accommodation	3,6
Attractiveness of town/state/region	3,0
Reputation of the VET/HE institution	3,5
Practice-oriented study program	4,0
Areas of specialisation provided, if applicable	4,4
Advice by my parents/relatives	4,0
Other:	4,7

Missing cases 4
Total answers 10
Question type OR

By clicking in the sidebar you can modify the data report according to your needs:

Report properties ⊗

Title	How important were the following factors in choosing the
Layout	☐ Chart
Show	◉ Mean
	○ Percent
	○ Count
Break	--
	Remove break
Filter	
	Apply to all the same type

OK   Cancel

Here are some examples:

If you select 'Show: Percent' you will be presented with the percentage of each scale point for each response item:

VA4 - How important were the following factors in choosing the higher education institution where you completed your study programme in 2011? percent;

Vicinity to home of parents or other relatives

1 Not at all important	0,0%
2	10,0%
3	0,0%
4	70,0%
5 Very important	20,0%

Availability of scholarship

1 Not at all important	0,0%
2	0,0%
3	0,0%
4	50,0%
5 Very important	50,0%

If you click 'Show: Count' you will be presented with the number of responses for each scale point of every item response:

VA4 - How important were the following factors in choosing the higher education institution where you completed your study programme in 2011? count;

Vicinity to home of parents or other relatives

1 Not at all important	0
2	1
3	0
4	7
5 Very important	2

Availability of scholarship

1 Not at all important	0
2	0
3	0
4	5
5 Very important	5

If you click 'Chart' and 'Mean' you will be presented with the following chart:

VA4 - How important were the following factors in choosing the higher education institution where you completed your study programme in 2011?

Vicinity to home of parents or other relat...
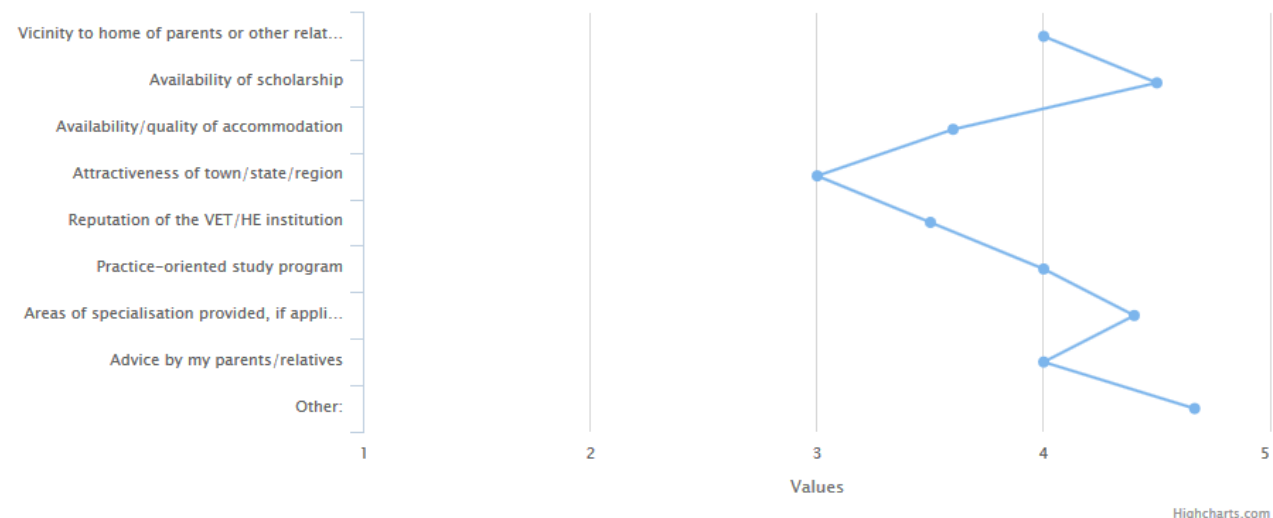Availability of scholarship
Availability/quality of accommodation
Attractiveness of town/state/region
Reputation of the VET/HE institution
Practice-oriented study program
Areas of specialisation provided, if appli...
Advice by my parents/relatives
Other:

Values

Highcharts.com

Missing cases   4
Total answers   10
Question type   OR

> ➢ **For the text-input type of question (TE) the given response of the graduate is shown!**

Select the question and drag it into the preview screen. You will see the following table, in which text responses given by graduates are listed along with a count for each item:

VA6 - Please specify, why you considered to cancel your study at the VET/HE institution? count;

Reasons for possible drop-out

Bad quality of leactures and seminars	1
Change of interests in the subject	1
Failed the exams	1

Missing cases   11
Total answers   3
Question type   TE

By clicking in the sidebar you can modify the data report for this type of question. Here you have a choice between Count and Percent:

If you click 'Show: Percent' you will be presented with the following table:

VA6 - Please specify, why you considered to cancel your study at the VET/HE institution?
percent;

Reasons for possible drop-out

Bad quality of leactures and seminars	33,3%
Change of interests in the subject	33,3%
Failed the exams	33,3%

Missing cases 11
Total answers 3
Question type TE

➢ **For the multiple-choice type of question (MC) the analysis is similar to that which is used for SC questions.**

Select the question and drag it into the preview screen. You will see the following table, showing the percentage for each response item:

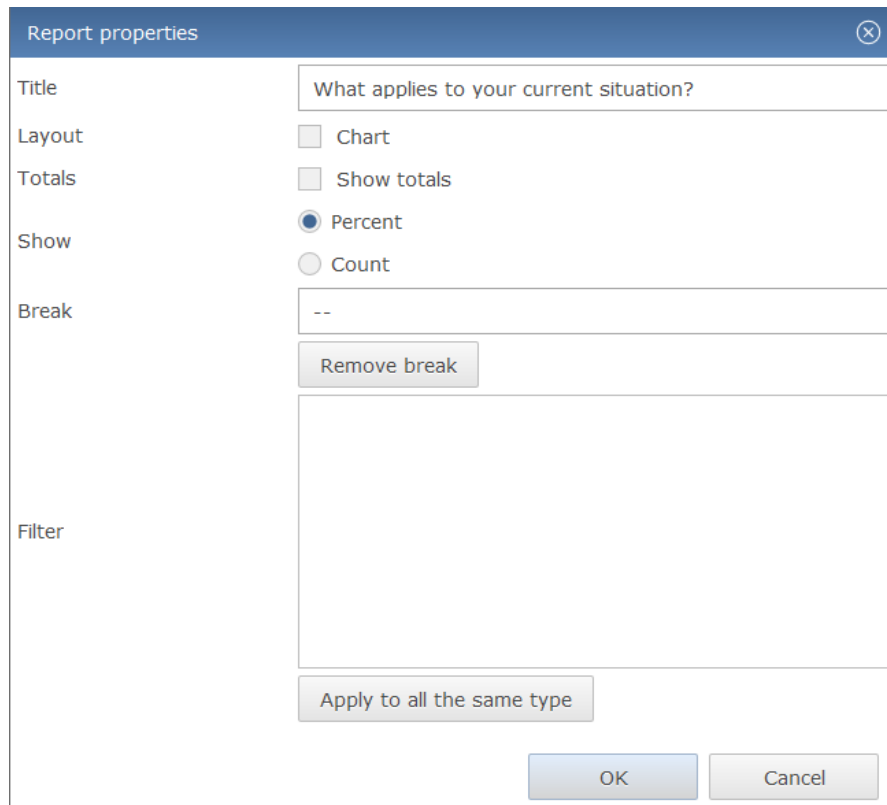**VB1 - What applies to your current situation?** percent;

Regular job	60,0%
Self-employed / freelance work	10,0%
Occasional job (just to earn money)	10,0%
Internship	20,0%
Further academic education (higher education)	0,0%
Further vocational training	10,0%
Housewife, househusband, family care	0,0%
Not employed, but searching for a job	20,0%
Military or civil service	0,0%

Missing cases 4
Total answers 10
Question type MC

By clicking in the sidebar you can modify the data report for this type of question according to your needs:

Report properties ⊗

Title	What applies to your current situation?
Layout	☐ Chart
Totals	☐ Show totals
Show	● Percent
	○ Count
Break	--
	Remove break
Filter	
	Apply to all the same type

OK   Cancel

Here are some examples:

If you click 'Show: Count':

VB1 - What applies to your current situation? count;

|	
Regular job	6
Self-employed / freelance work	1
Occasional job (just to earn money)	1
Internship	2
Further academic education (higher education)	0
Further vocational training	1
Housewife, househusband, family care	0
Not employed, but searching for a job	2
Military or civil service	0

Missing cases   4
Total answers   10
Question type   MC

If you click 'Show: Count' and 'Show totals':

VB1 - What applies to your current situation? count;

Regular job	6
Self-employed / freelance work	1
Occasional job (just to earn money)	1
Internship	2
Further academic education (higher education)	0
Further vocational training	1
Housewife, househusband, family care	0
Not employed, but searching for a job	2
Military or civil service	0
Total	13

Missing cases   4
Total answers   10
Question type   MC

If you click 'Show: Percent' and 'Chart':

VB1 - What applies to your current situation? percent;

Missing cases   4
Total answers   10
Question type   MC
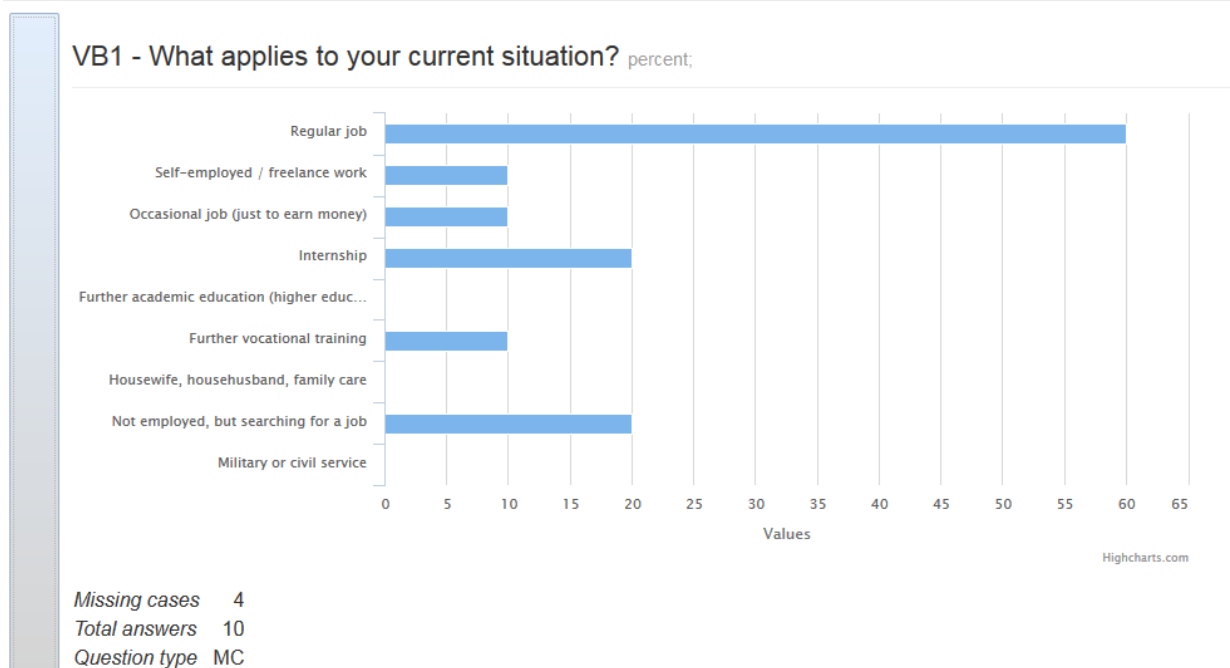
> **Cross-tabulations: You can also report the data using cross-tabs (that is, putting two questions together)**

To create a cross-tabulation you need to select two questions: the second question will be the break by which the first question is to be analysed. In the example below, question VB1 'What applies to your current situation?' is analysed in terms of question VA2 'Which qualification did you achieve at the VET/HE institution?'. By using a break in this way, we can see the current situation of the graduates by type of VET/HE institution.

To make such a cross-tab first drag the main question (here: VB1) into the preview screen. Then insert the break question (here: VA2) by dragging it to the sidebar of question VB1. You will see the following result:

VB1 - What applies to your current situation? by Which qualification did you achieve at the VET/HE institution?; percent;

	Certificate	Diploma	Other (please specify):
Regular job	66,7%	60,0%	50,0%
Self-employed / freelance work	0,0%	0,0%	50,0%
Occasional job (just to earn money)	0,0%	20,0%	0,0%
Internship	33,3%	20,0%	0,0%
Further academic education (higher education)	0,0%	0,0%	0,0%
Further vocational training	33,3%	0,0%	0,0%
Housewife, househusband, family care	0,0%	0,0%	0,0%
Not employed, but searching for a job	0,0%	40,0%	0,0%
Military or civil service	0,0%	0,0%	0,0%

Missing cases   4
Total answers   10
Question type   MC

In this table the current situation of graduates who received certificates or diplomas or achieved other qualifications is shown. The percentage is also given in each case. At the top of the table the question being analysed and the question used as a break are stated.

You can also create a chart for this analysis by clicking in the sidebar of question VB1:

As you can see, the window 'Report properties' already contains question VA2 as a break for question VB1. If you don't need this break any more, you can click the button 'Remove break' and confirm with the 'OK' button. If you want to create a chart, just click on 'Chart' and, again, confirm with the 'OK' button:

VB1 - What applies to your current situation? by Which qualification did you achieve at the VET/HE institution?; percent;
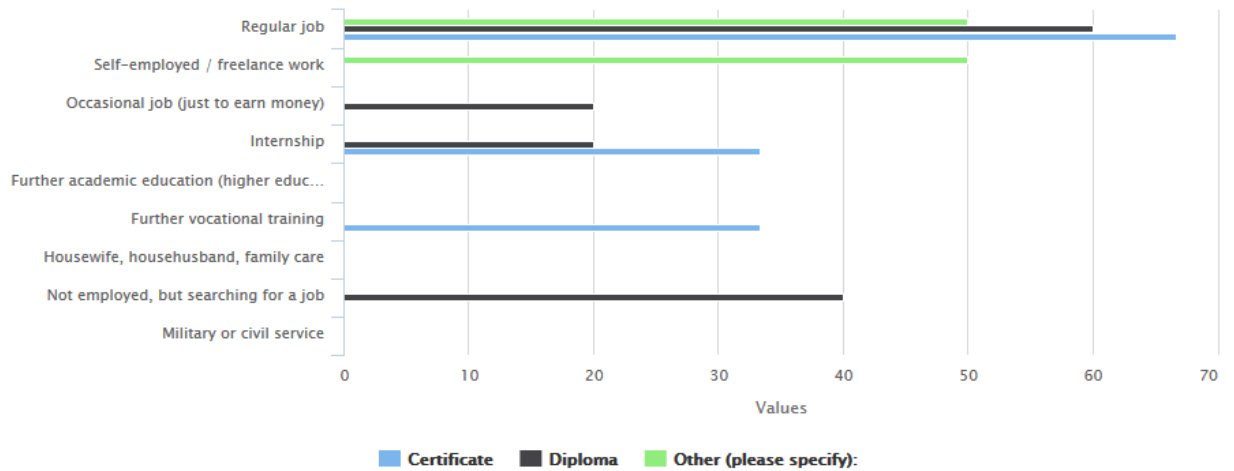
Missing cases 4
Total answers 10
Question type MC

> **Export of the data analysis**

Once you have analysed your data, you can export and save your results locally on your computer in Excel or Word. In order to export the data just click on 'Export' in the upper left side of the report window. This allows you to edit your tables and charts, if necessary, according to your needs. If you would like to add some description of the tables and charts for a more detailed report, you can also do this in the Word option before printing out the document.
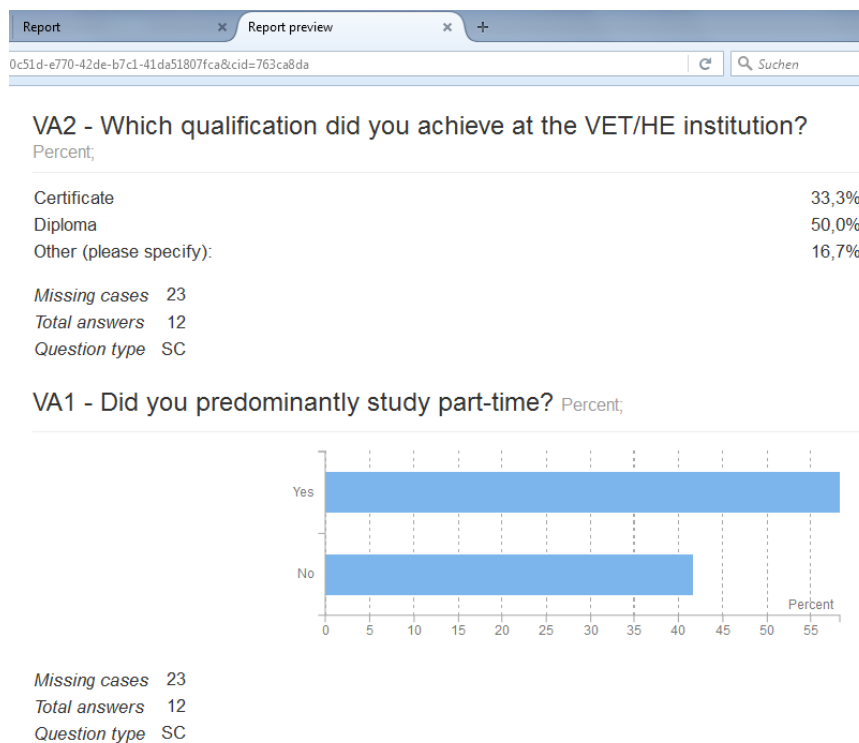
By using the button 'Printable' the results of your analysis will appear in the new web browser.

Here you can view the analysis, plus you can choose to save it as a pdf document or print it out. In order to print out the report just go to the main menu of your web browser and select 'Print'. First you will see the preview of the printed document which contains all the tables and charts you analysed. The tables and charts will appear in the order you analysed them. If you press 'Print', your tables and charts will be printed out. These pages will contain complete tables and charts – the program ensures that no table or a chart will be divided over two or more pages.

Here is an example of the print preview:

5. Exporting questionnaires and working with XML

QTAFI gives you the opportunity to upload, download and edit questionnaire documentation (codebook), as well as facilitating file sharing within projects and between users. A codebook can be exported through the main page of QTAFI or through the questionnaire editor page. The exported questionnaire can then be imported into QTAFI (from another project or user) and modified. The exported questionnaire can also be modified outside of QTAFI using XML. We will examine both approaches here.

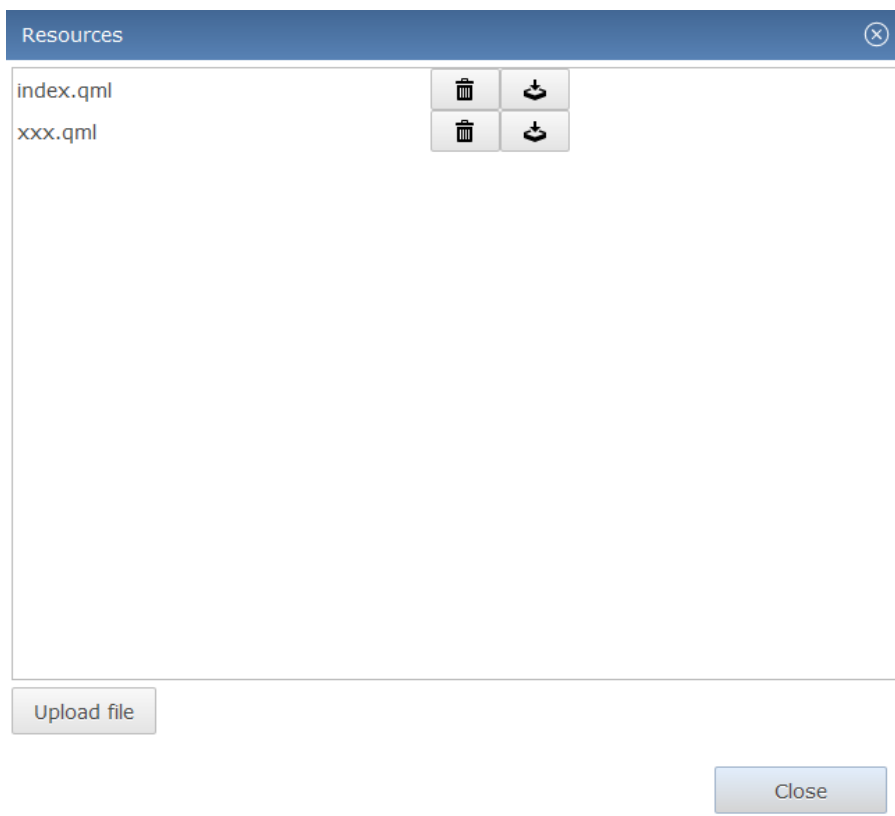## 5.1 Exporting a questionnaire documentation and modifying it in QTAFI

When you begin to set up an online questionnaire using the web-form, via mouse clicks, a text document containing your questions will be created automatically. There are two ways of downloading a questionnaire documentation.

➢ One of the options is located within the main menu under 'Resources'.


A click on 'Resources' will bring up the following window:

The file 'index.qml' represents the questionnaire documentation including variable names and value labels (codebook). It can be downloaded and saved as a text document. Within this window you can also upload files into QTAFI, further modifying them if necessary. These two options, export and import, are very useful in sharing your questionnaires across surveys, or with other users of QTAFI. It is also helpful to have different back-ups of a questionnaire documentation in your computer which do not occupy a large amount of space.

> ➢ Another way of downloading a questionnaire documentation is within the questionnaire panel under 'Export'. The name of the file in this case is codebook.xml.
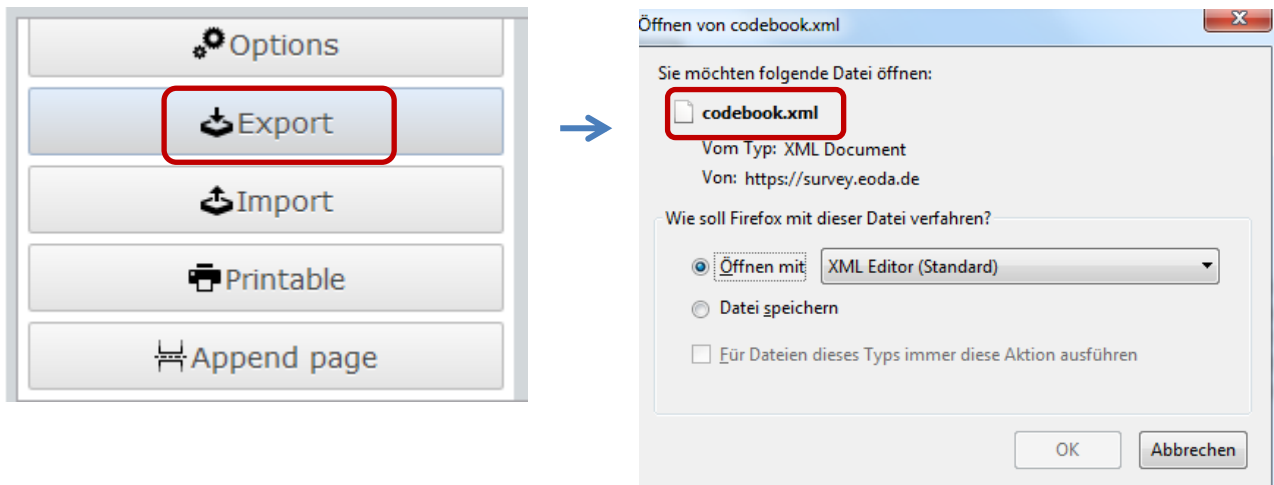
You can also import questionnaire documentation from this window and continue working on it in QTAFI.

5.2 Exporting a questionnaire documentation (codebook) and modifying it in XML – a short introduction

Once you have exported the questionnaire documentation through one of the options explained in the previous section, and saved it locally on your computer, you can go back and modify your questionnaire at a later date in XML language. For this, it is advisable to use a text editor. The text editor approach requires Notepad or another type of text editor. The text editor Notepad++ is recommended. Open the codebook with Notepad++ and develop your questionnaire there; once you are finished, upload it within QTAFI. To do this, log in to QTAFI, go to 'Resources' and then 'File upload', or go to the 'Questionnaire panel' and then 'Import'. In the latter case the codebook will open in another browser. You can save it afterwards as a text document.

The codebook contains a description of the questionnaire data by means of the self-describing and simple syntax of an **extensible markup language (XML).** An online codebook is adapted to the technical requirements of the internet. A codebook is responsible not only for the description of the processed data, but also for the description of the questionnaire. Thus, an online questionnaire in Online-QTAFI is based on a codebook written in XML language. You can work directly with the codebook only if you are familiar with XML language.

The elements in an XML document form a document tree. The tree starts at the roots and branches out to the leaves. All elements can have sub-elements (child elements) [1].

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[1] W3Schools.com. 1999–2015. *XML Tree* [online]. Available at: http://www.w3schools.com/xml/xml_tree.asp [accessed 15 July 2015].

The basic XML codebook is opened and closed with a codebook element. Questions are located in a page and within a children element. Below is the general structure of a question in a codebook:

```
<qtafi xmlns:qtafi='urn:qtafi'>
   <codebook>
     <Page>
       <children>
         <HL>
           <text> Survey of Graduates of the Year 2013</text>
         </HL>
       </children>
     </Page>
   </codebook>
</qtafi>
```

The first line is a declaration. It must be located at the beginning of any XML file. The declaration gives information on the XML version being used.

Information following the first line is packaged in *elements*. Each element contains a specific kind of information. They always have a unique name and can be assigned certain properties/attributes. Elements are enclosed in angle brackets and appear in pairs, in the form <element> and </element>. The first element in a pair is known as the start tag (also called the opening tag), while the second element is the end tag (also called the closing tag). The end tag always contains a slash (/) before the element definition. If an element is opened it has to be closed with an end tag, otherwise the code will not work.

In addition, the elements themselves have a hierarchical structure.

<qtafi xmlns:qtafi='urn qtafi'> indicates that the questionnaire is to be designed with QTAFI and shows a QTAFI path – the general form of a directory name specifying the location of a file system.

<codebook> shows that this text document represents a codebook

<page> corresponds to the creation of a page of a questionnaire within which some questions will be designed

<children> indicates a children node which contains child elements if they are available.

The elements <qtafi> and <codebook> are to be opened once and then closed at the end of the whole questionnaire syntax.

"XML tags are case sensitive. The tag **<Text>** is different from the tag **<t**ext>. Opening and closing tags must be written in the same case:

<Text>This is incorrect</text>
<text>This is correct</text>

In XML, all elements must be properly nested within each other:

<moretext><i>Multiple answers possible</i></moretext>

The <i> tag means italic, that is, the text is to be written in italic. In the example above, "Properly nested" simply means that since the <i> element is opened inside the <moretext> element, it must be closed inside the <moretext> element"[2].

As mentioned above, XML documents must have what is called a root element – one element that is the parent of all other elements.

```xml
<CV id=V4">
	<subject>Kind of qualification</subject>
	<number>A4</number>
	<text>Which qualification did you achieve at the VET/HE institution?</text>
	<variable name="V4">Kind of qualification</variable>
	<value key="1">Certificate</value>
	<value key="2">Diploma</value>
	<value key="3">Other</value>
</CV>
```

The root element in the example above is <CV> which stands for a categorical type of question with only one answer possible – a single choice question. All other elements in the document are contained within <CV>.

The <CV> element has several children: <subject>, < number>, <text>, <variable name> and <value key>.

In general the same information is provided within the 'Question editor' when you program a question via mouse-clicks

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[2] W3Schools.com. 1999–2015. *XML Syntax Rules* [online]. Available at:
http://www.w3schools.com/xml/xml_syntax.asp [accessed 15 July 2015].