Questionnaire Design and Development Tool (QDDT) for the European Social Survey

User manual

V2.0: May 2018

This user manual is for use with v1 of the QDDT, released May 2018

Contents

1. Introduction

The process of designing a questionnaire for a scientifically rigorous cross-national survey is a long and complex one. Carefully documenting this process is important not only to ensure the effective realisation of a final questionnaire but also to provide survey users with valuable metadata for future reference.[1] The Questionnaire Design and Development Tool is an interactive and dynamic web-based tool which can be used to both document and retrieve information on the process of designing a cross-national survey questionnaire. It replaces the Word Question Design Template used by the ESS in Rounds 4-9.

The QDDT is intended to improve the efficiency of the questionnaire design process. The tool provides a means of managing and documenting the design process in real time. Using the QDDT it is possible to:

- View and comment on proposed questionnaire content (Section 3)
- Document a survey module, including the theoretical concepts and question items it contains (Section 4 and 5)
- Create question items to populate a module (Section 6);
- Make changes to survey modules, concepts and question items and track the development of these changes over time using versioning (Section 7);
- Publish different versions of survey modules, concepts and/or question items for comment and review by other survey stakeholders (Section 8);

In the future it is intended that it will be possible to produce the final field-ready questionnaire directly from the QDDT. However, this will not be possible for ESS Round 10. Content must be copied from the QDDT into the questionnaire (making use of the PDF exports where possible).

This user manual is intended for use by all those involved in the ESS questionnaire design process in Round 10. Throughout the manual, grey 'notes' boxes have been used to highlight tips for usage and/or ESS conventions to follow. The Appendix provides guidance on how to enter specific types of module content in the QDDT using examples from previous ESS rounds. Users should also consult the separate document "Versioning and publication example from ESS Round 9.doc" which provides further guidance on versioning u*sing a worked example from the ESS Round 9 questionnaire module on Justice and Fairness.*

ESS ERIC HQ will take primary responsibility for keeping the QDDT updated. Other users will only need to familiarise themselves with some aspects of the QDDT. Further details are given in Section 2.3.

[1] Fitzgerald (2015) *Sailing in unchartered waters: Structuring and documenting cross-national questionnaire design* GESIS working paper 2015|05

2. The QDDT: Documenting a questionnaire using DDI

The Questionnaire Documentation and Development Tool has been constructed using a metadata model based on the Data Documentation Initiative (DDI), specifically DDI-Lifecycle 3.2 XML. The Data Documentation Initiative (DDI) is an internationally acknowledged metadata specification describing data from the social, behavioral, and economic sciences (http://www.ddialliance.org/) and is commonly used in the documentation of surveys, questionnaires and associated data files.

Anyone using the QDDT will benefit from some familiarity with some the key features of DDI including the building blocks or elements DDI uses to construct a questionnaire and the principles behind versioning.

2.1 Survey building blocks (elements) within the QDDT

The QDDT records the questionnaire development process - and final survey instrument - as a series of metadata elements. QDDT users need to be familiar with the different elements, and the information they are intended to record, as well as how the different elements fit together to form the final survey instrument.

Survey, study, module

A **survey**, for example the European Social Survey (ESS), is entered into the QDDT as a hierarchical series of nested building blocks or elements.

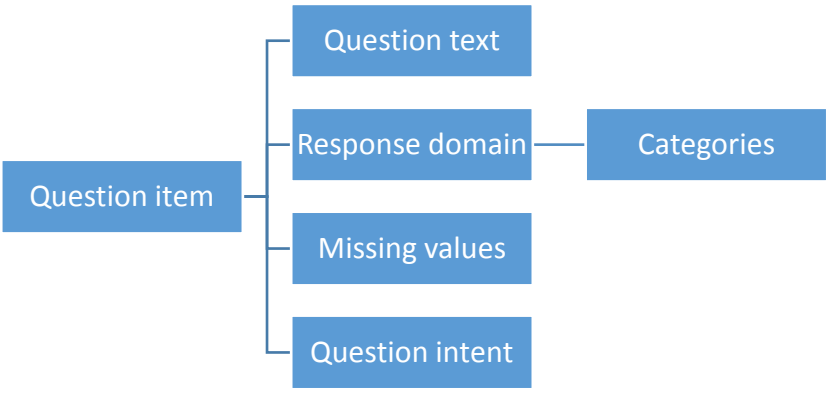
- A long running survey such as the ESS is comprised of a series of **studies** i.e. rounds or waves.
- In turn, each study is broken down into several **modules** i.e. question blocks or topics. The ESS, for example, has core modules that are repeated in every study and two other rotating modules that change from study to study.
- Each module is sub-divided into a series of underlying theoretical **concepts** to be measured.
- Finally, **question items** are designed to operationalise these underlying concepts.

Question items

Question items are the main building blocks of the QDDT. Question items are themselves made up of several different elements:

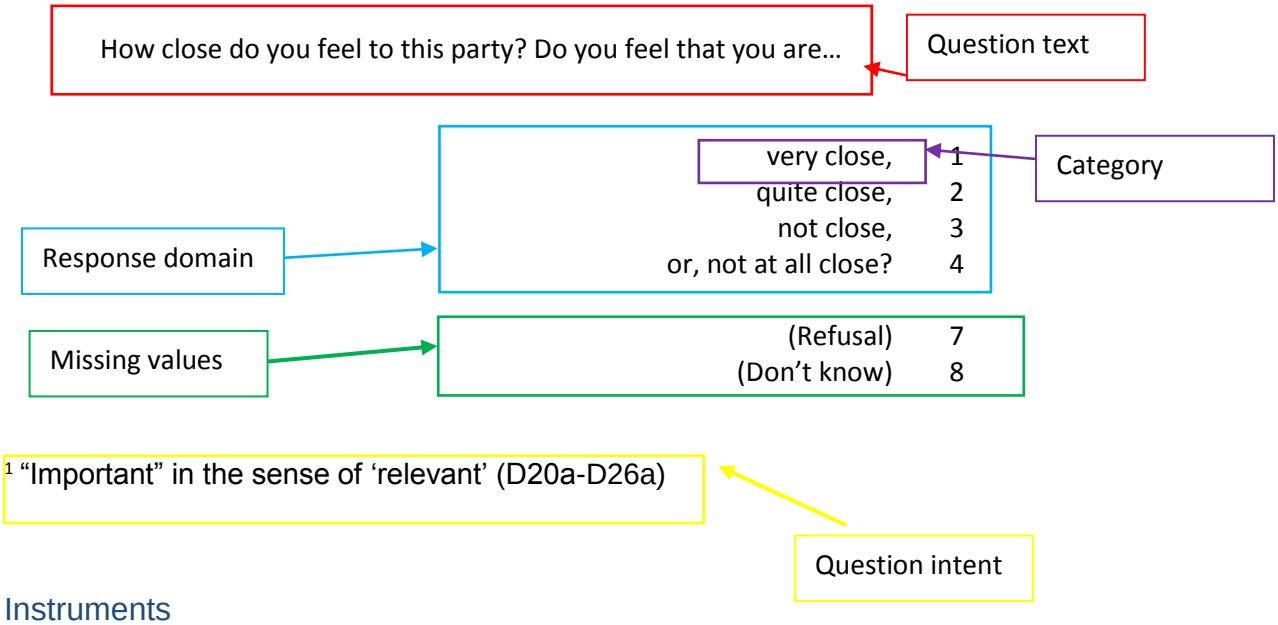
- **Question text** i.e. the question wording,
- **Response domain** i.e. the (type of) responses that can be given to the question. Different types of response domain e.g. numeric, text may be specified. Some response domains e.g. scale or code domains are made up of pre-defined **categories**.
- **Missing values** for example don't know, refusal. Under DDI missing categories are defined separately from the main response domain.

- **Question intent.** This box can be used to note any key information about the question not recorded elsewhere. For ESS the main use of question intent will be to note questionnaire annotations.



For QDDT users the key point to note is that **elements first need to be defined within the tool and then selected for (re)use by, i.e. to be attached to, other elements**. So, when creating a question item, the relevant response domain and set of missing values should first be entered into the tool and then combined with the question text to make a question item. Similarly, question items first need to be created within the tool and then attached to the concepts they are intended to measure. This process is described in more detail in the relevant sections below.

Figure 1: A question item within the QDDT



Instruments

Question items are combined to create a **survey instrument** i.e. a questionnaire using control constructs.

- Question items are transformed into **question constructs**. Question constructs add interviewer/respondent instructions, showcard references and question numbers to the question item. Each question item will have a unique question construct for each instrument in which it is fielded.

- Question constructs are combined into a **sequence** or series of question constructs which go together to form a block, for example an item battery or set of question items which are routed to a sub-set of respondents.
- Sequences may be linked by **statement items**, for example "I am now going to ask you some questions about…" and may be subject to "**If-then-else**" i.e. routing instructions.

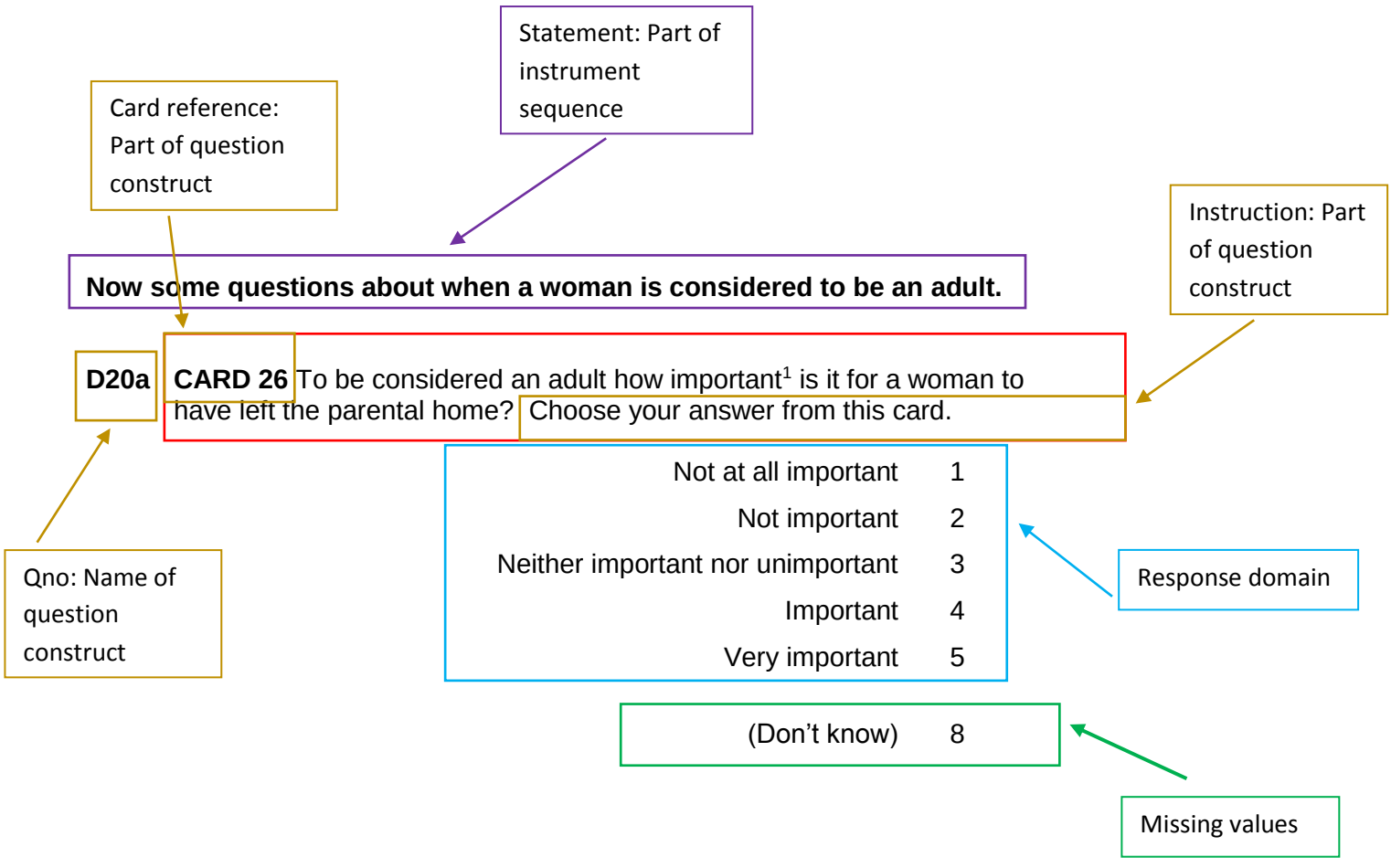
For QDDT users the key point to note is that not all of information which we tend to record in the current QDT paper template alongside or as part of the "question item" will necessarily, under DDI, be part of the question item. Rather it needs to be specified separately as part of building the instrument. Splitting existing questionnaire items into their constituent elements is likely to take some practice.

Currently the QDDT is not set up to produce sequences leading to the final survey instrument. The one element which is present is question construct. Question constructs will be used to:

- Record the intended **universe** i.e. routing for each question item
- Document **interviewer instructions** and showcards associated with the question items

Because the sequence feature is not yet fully developed, "work arounds" have had to be found for documenting questionnaire batteries. These are described in Appendix 1 which details agreed ESS conventions for the QDDT.

Figure 2: Building a question sequence



2.2 Versioning

The questionnaire development process is a long and complex one involving many iterations. Changes to elements may be made a) during the question development process for a single survey round, for example in response to feedback from pre-testing b) between one survey round and another, for example to correct errors identified or to update a code-frame. Versioning provides a way to track the evolution and provenance of different survey elements and to differentiate important modifications from those that are not so important.

All elements within the QDDT are versioned. The QDDT employs business versioning which puts the user in control of when to assign a new version number to an element. Users need to consider versioning every time they make direct changes to the content of an element. They also need to be aware of versioning when they make changes to a lower level element associated with survey, study, mode or concept - for example when there is a change to a sub-concept under a particular concept or a concept under a module. Prior to publication (see below), the higher level element must be versionedto maintain the relationship between the higher and lower level elements.

Versioning can appear complicated in the abstract but should become clearer once you start to employ it as part of the questionnaire design process. To help with this process, we have provided a worked example of versioning from a previous ESS module alongside this guide. Some key points to be aware of with regard to versioning elements in the QDDT:

- The QDDT has two levels of versioning: major and minor. The user needs to decide whether the change to the element represents a major or a minor change. Minor changes are typos and orthographical changes that do not change the meaning, while major changes are all other modifications that affect the meaning of the element. Each time a new major version is assigned the user must specify the type of/rationale for the change (from a pre-coded list in the QDDT).

- The QDDT employs early binding for commonly revised elements such as question items or response domains (but not studies, modules or concepts). When selecting elements to use in a survey instrument - or to publish for review - the user can select from among the different versions of the element saved within the QDDT.

- The QDDT employs batch versioning that is, multiple changes can be made to an element before saving it as a new version. This means that at a given point in the questionnaire design process (for example post-pilot) changes can be made to multiple concepts or question items within a module before a new version number is assigned to the module.

- After making changes to an element you can choose to save that element as a “work in progress” rather than assigning a new business version straight away. However, this option should be used with caution. You must remember to version the changes subsequently.

- The QDDT uses the icon to signal elements that are “work in progress”, that is to which changes to an element have been made since the last business version was assigned. A new version of the element must be saved before elements are published (See Section 8). This is important because this is the way published elements are made stable for referencing, that is it is

possible to look back at the version of a module, concept, question item that was in use at a particular stage in the development process e.g. the pilot.

- The QDDT employs upward versioning that is, a version change in a lower level element is expected to trigger a version change in a higher level element. The QDDT will not update the version numbers of higher level elements automatically; the user must remember to do this prior to publication. The user is prompted to do this by the appearance of the  icon next to an element, which indicates that lower level elements have changed since the last business version was saved. For example, if a sub-concept attached to a concept is changed, the  will appear next to the top level concept description.

The process of versioning within the QDDT is described fully in Section 7.

2.3 User access rights

There are different role and user access rights set up within the QDDT. These are:

Editor: User has full read and write access rights to content entered within the tool and can add, edit, delete, version and publish any content elements including modules, concepts, question items and question constructs.

Conceptual editor: User has full read access rights to content entered within the tool. They can view, search and export all content elements. Conceptual editors also have limited write access and can add, edit, delete and version concepts and sub-concepts (but not question items or question constructs). Another important feature of the conceptual editor role is that they can add comments to any content element.

Viewer: User has full read access rights to content entered within the tool. They can view, search and export all content elements. However, unlike conceptual editors they cannot leave comments.

External user: User has full read access rights to externally published and archived content within the tool. They can view, search and export all content elements once the design process for a given Round of the survey is complete and content has been shared publically.

NOTE

For ESS Round 10 access rights are distributed as follows:

For the ESS questionnaire development process:

- A member of the team at ESS HQ will act as editor and take primary responsibility for keeping the QDDT up to date and recording the outcome of questionnaire discussions.

- A designated member of each Question Design Team will be set up as a conceptual editor. They will be expected to do the following in the QDDT:
    - View module content (see Section 3.2 and 3.4)
    - Comment on module content (see Section 3.3)
    - Add and edit concepts within a module (see Section 4)
    - Attach question items to concepts (see Section 5)

  They will not be required to formulate question items in the QDDT or to version content.

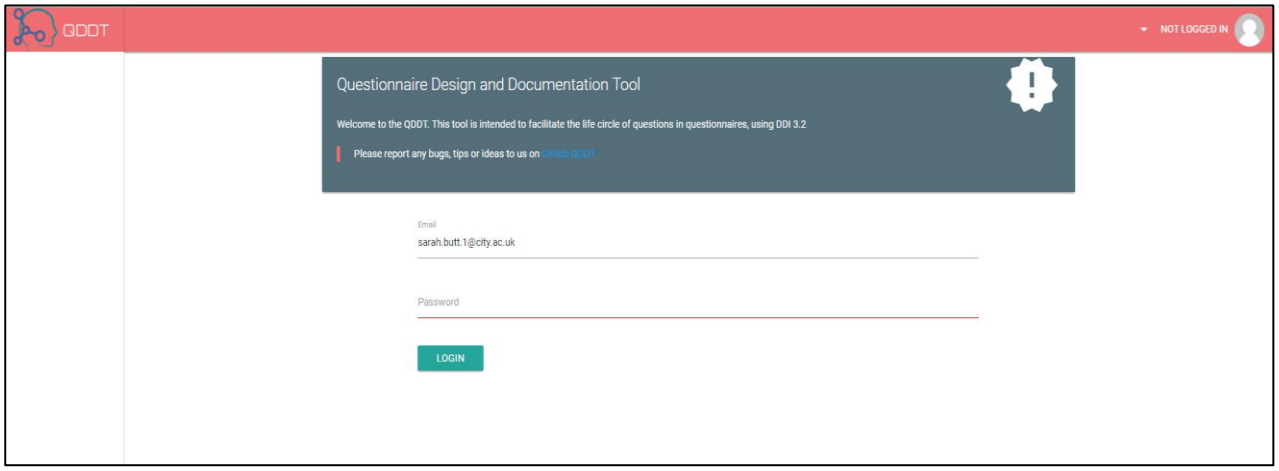
- Other people closely involved in the questionnaire design process i.e. members of the Question Design Team, other members of the team at ESS HQ and members of the Core Scientific Team will also be set up as conceptual editors. Their primary role will be to view and comment on content within the tool

- National Coordinators and other stakeholders involved in the questionnaire design process – for example members of the Scientific Advisory Board - will not interact directly with the QDDT. Module content will be exported from the tool and shared with them as PDFs at key points in the design process.

3. Getting started with the QDDT

3.1 Log in

The QDDT is accessed online. It must be accessed using Chrome as the web browser. Go to the following url: https://qddt.nsd.no/ and enter the log in credentials issued to you.



Upon login you will be presented with a list of all of the surveys documented within the QDDT.

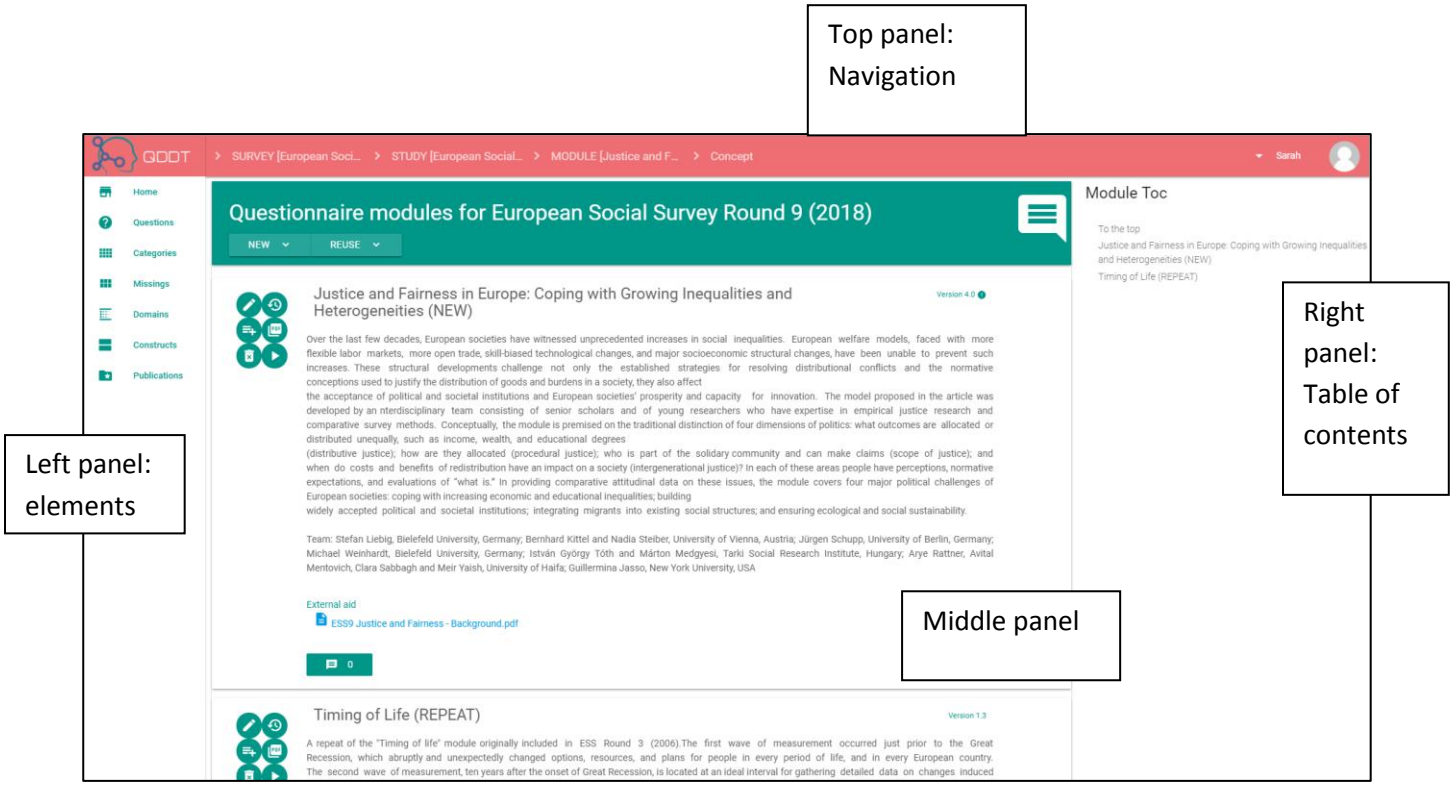
3.2 Navigating within the QDDT

3.2.1 Main screen

When working within the main body of the tool, the QDDT User Interface (UI) is divided in four main sections:

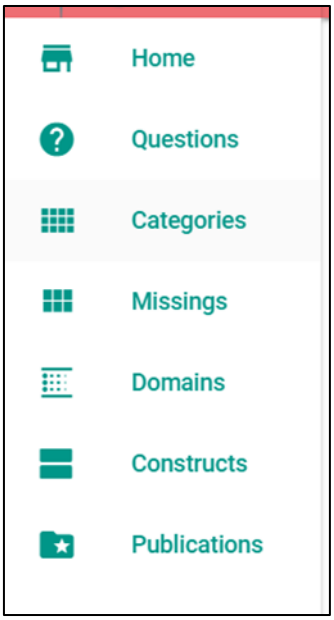
- The left panel provides access to all the elements needed to create a survey instrument e.g. question items, response domains etc.
- The top panel indicates where in the nested hierarchy i.e. within which Survey -> Study -> Module you are currently working.
- The right panel gives the Table of Contents for available surveys, studies, modules or concepts stored within the tool.
- The middle panel displays available elements and is the place to add new elements or edit existing elements when working on a survey, study or module (see Section 4).

Note that all navigation should be done within the QDDT. Do not navigate using the back button on the web browser.



Left panel: elements

From this panel it is possible to access and/or create the different elements used to create a survey instrument including:



(1) Question items

And the elements needed to create them

(1a) Response categories

(1b) Missing values

(1c) Response domains

(2) Survey instruments

And the elements needed to create them

(2a) Question constructs

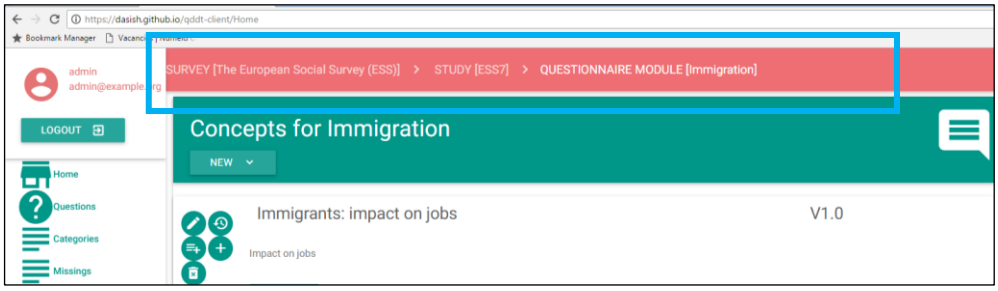
It is also possible to access the lists of QDDT content published for review (3).

Top panel: Navigation panel

The top navigation panel tells you in which Survey - > Study -> Questionnaire Module you are currently working.

- Clicking on "Questionnaire Module" will take you back to the listing of all available modules within the current study.
- Clicking on "Study" will take you back to the listing of all available studies wihtin the current survey.

- Clicking on “Survey” will take you back to the QDDT home page i.e. the listing of all surveys documented in the tool.

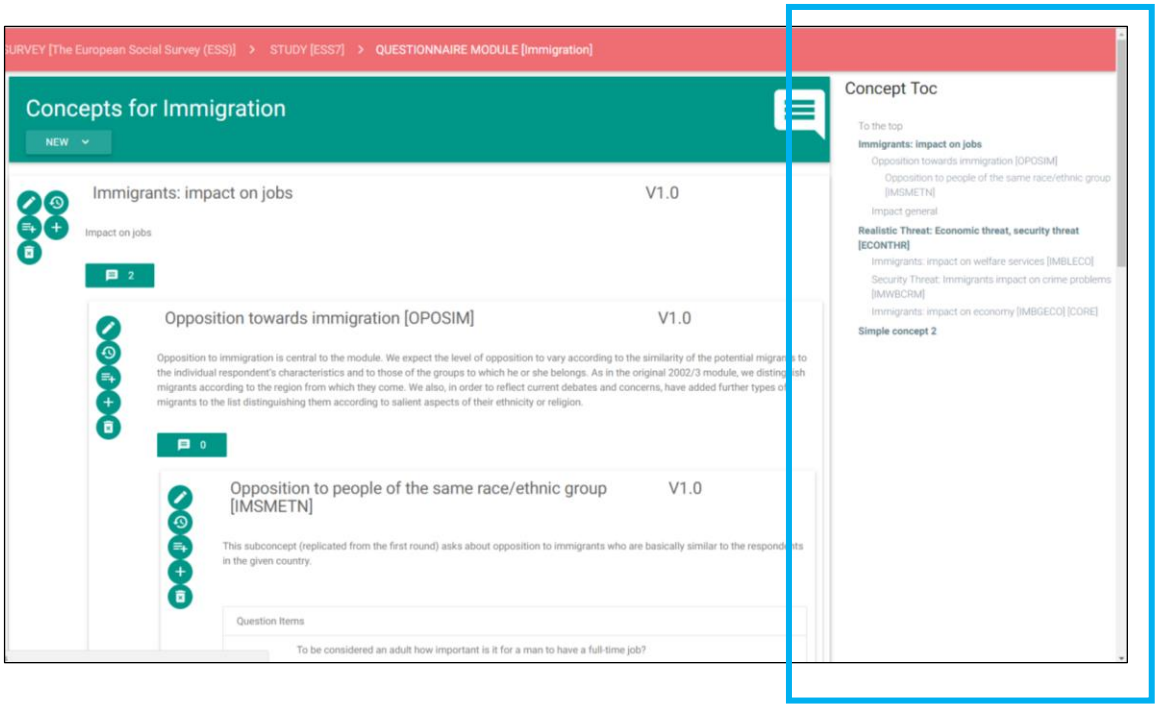


Right panel: Table of Contents

The right panel provides a contents listing. Depending on how far down the hierarchy you have navigated this will be:

- A listing of all studies wihtin a survey
- A listing of all modules within a survey
- A listing of all concepts and sub-concepts within a module

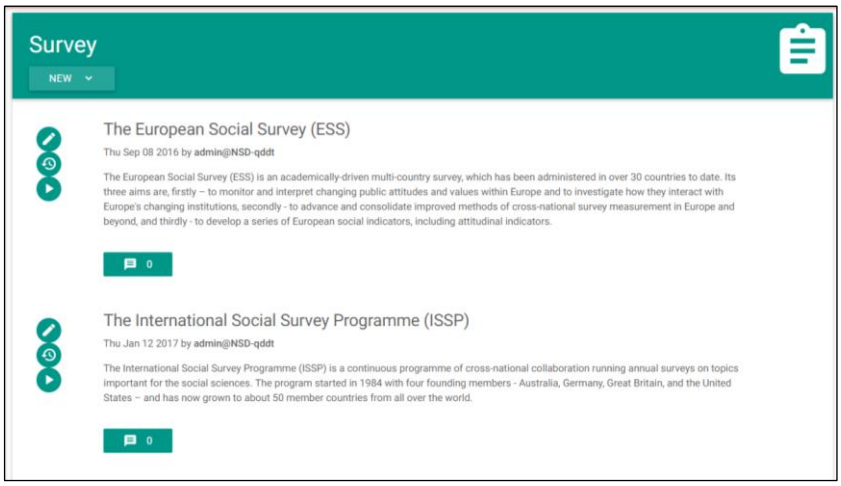
Perhaps most helpfully, this panel can be used to move between concepts within a module.



Concepts are listed in the Toc in the order in which they are entered/edited. This means that the order may change each time you log in. The aim is to change this in a subsequent version.

Middle panel

The middle panel is where surveys, studies, modules and concepts are created and viewed. Further details on how to do this are given in Section 4.



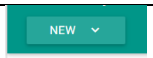
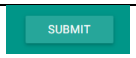
3.2.2 Element listings

When clicking on any of the elements listed in the left hand panel, you will be presented a list of all the instances of that type of element (question item, response domain, category) currently entered into the tool. You can then:

To return to the main element listing after viewing a particular element in more detail, either click  from within the element window or click on the relevant icon in the left hand menu.

3.2.3 Icon glossary

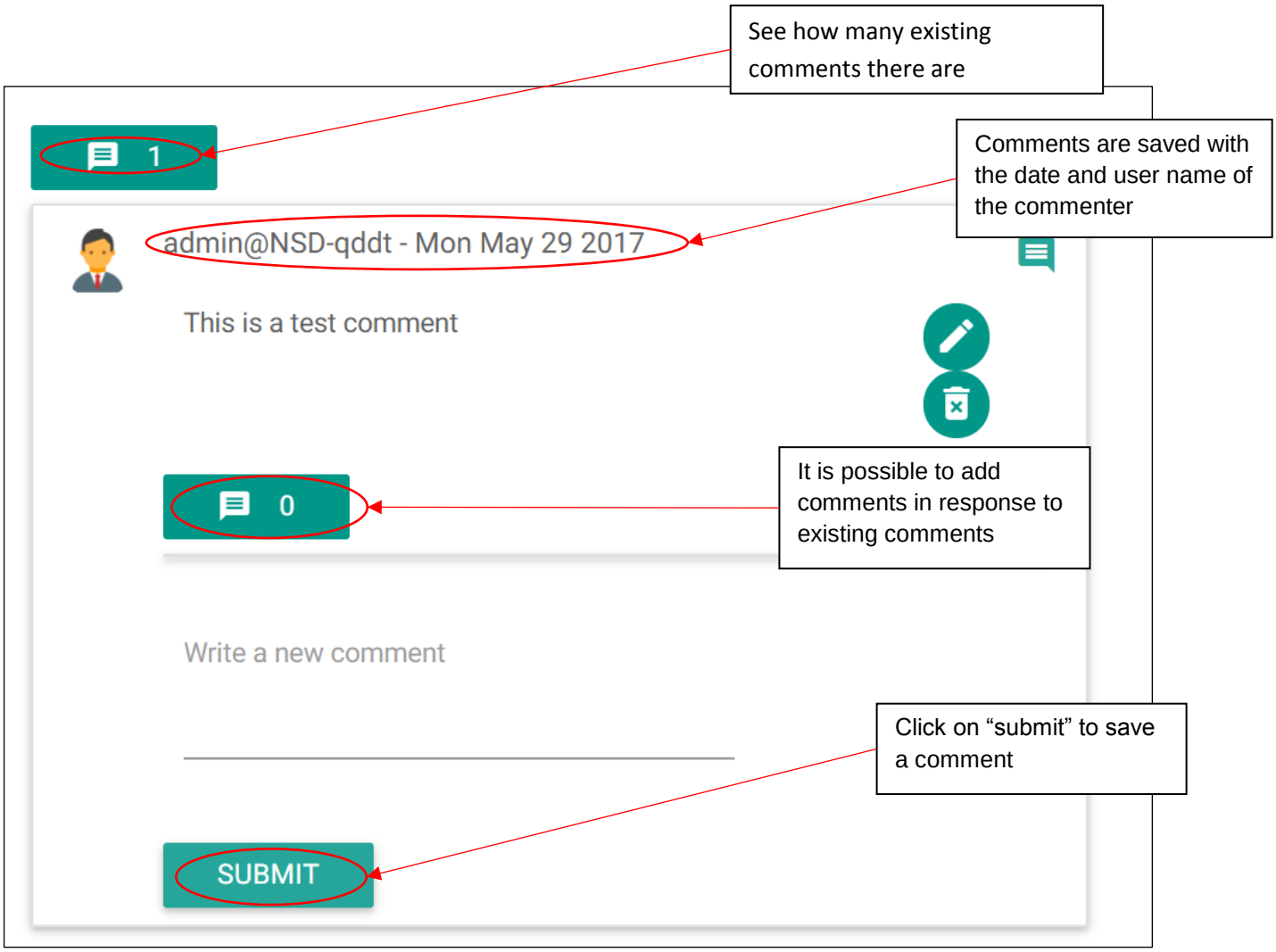
Throughout the QDDT the same icons are used to signal core functionalities. For each element within the QDDT it is possible to do most or all of the following:

Create a new element	
Delete an element	
Edit an element	
Add an element	
Remove an element	
Comment on an element	
Save the information entered for an element	
Move forward in the survey hierarchy (e.g. enter a survey to view studies it contains)	
View an element's version history	
Go back to the previous screen	
Be alerted that an element has been saved as "work in progress" i.e. changes have been made to an element but a new version number has not yet been assigned	
Be alerted that a change has been made to a lower level element e.g. a change to a sub-concept will trigger this icon for the associated concept. A new business version of the higher level element should be considered.	
Download a PDF of the element	
Access further icons and functionalities (delete, view version history, export PDF) for a given element	

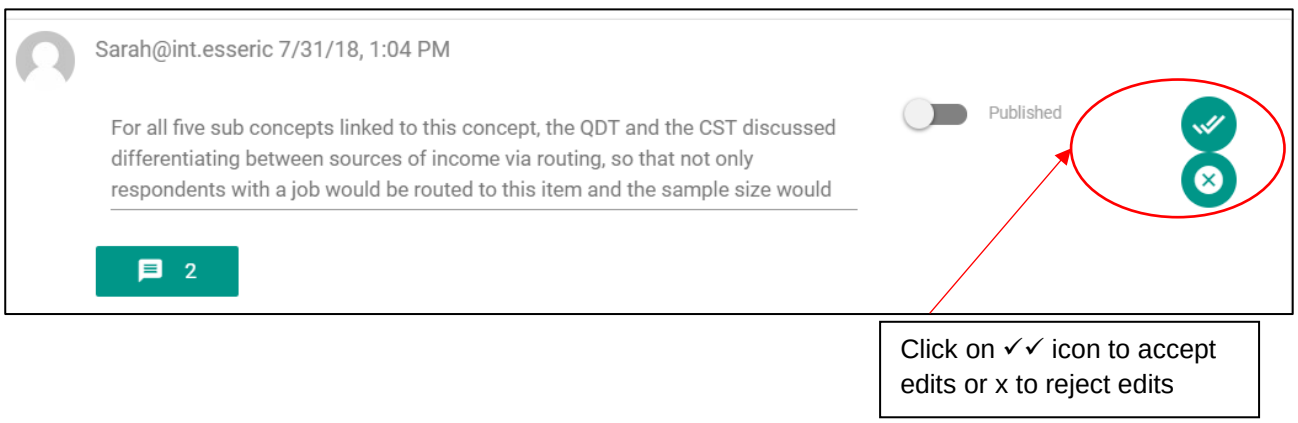
3.3 Comment function

An important feature of the QDDT is the ability for users to record comments about any of the elements being documented in the tool and to view comments left by other users.

To leave a comment - or view existing comments - about any element within the QDDT click on 



Comments can be edited by clicking on the icon.

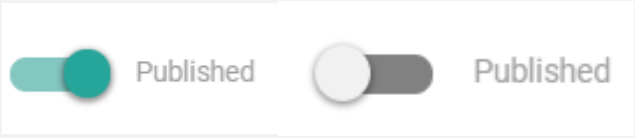


NOTE

All comments entered in the QDDT will be visible to all internal users. Note also that comments are not specific to a given version of an element; this means that all comments entered into (and not deleted from) the QDDT will be visible even if you select an earlier version of an element to view. Similarly, if comments are deleted part way through the design process, they will no longer be visible anywhere in the QDDT.

Some thought therefore needs to be given as to how to use and manage comments within the QDDT. Very involved or speculative discussions may be better taking place outside of the tool. It may also be necessary, periodically, to go through and edit or streamline comment threads.

It is possible to hide some or all of the comments before publishing content from the QDDT for PDF format (for example to share with other stakeholders). To hide a given comment make sure the Published slider is set to the left and greyed out.



Comments can be entered under any element. Comments are likely to be most visible if left under the relevant concept in the main part of the QDDT. However, there may be some comments that are appropriate to leave under the relevant question item, response domain etc.

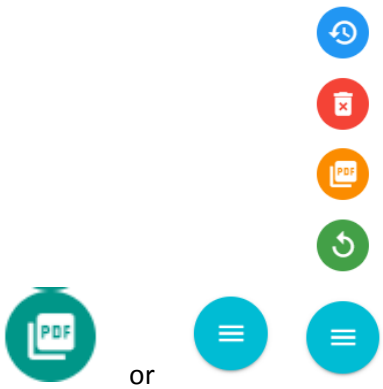
3.4 Publication and PDF export

The module (including concepts, sub-concepts and associated question items) visible in the QDDT at any point in time will be the current working version. Once changes are made to a module or the concepts it contains it is not possible to recall previous versions. "Publication" provides a way for users to document key milestones in the questionnaire development process. A specific business version of a module (or concept) can be "published" within the QDT. The published version can then be accessed from within the QDDT (select "Publication" from the left hand menu) and downloaded as a PDF at a later point in time.

Publication also provides a way to retain a record of the specific module content that was shared with other stakeholders at a given point in time or used for a specific purpose, for example which question items were included in a particular round of pre-testing. Further details of publication are given in Section 8.

The current content of the QDDT at can be downloaded and saved in PDF format at any point in time. It is possible to download an entire module, individual concepts or sub-concepts, and specific question items or

question constructs. Simply look for the PDF icon next to the element you wish to download.



or

Note that a PDF of a module (concept) will also include all concepts, sub-concepts and associated question items (sub-concepts and associated question items) which make up the module (concept).

Whilst the PDF download option is always available, enabling content to be saved outside of the QDDT, it is good practice to get into the habit of formally “publishing” content at key milestones in the questionnaire development process to retain a full and proper record of the questionnaire’s evolution.

The following sections provide more details on how to enter content within the tool.

4. Set up a survey in the QDDT

The QDDT is currently being tested by the ESS. However, in the long run the intention is to make the tool available to other surveys. The first screen that appears following log in will provide a list of the surveys using the QDDT.

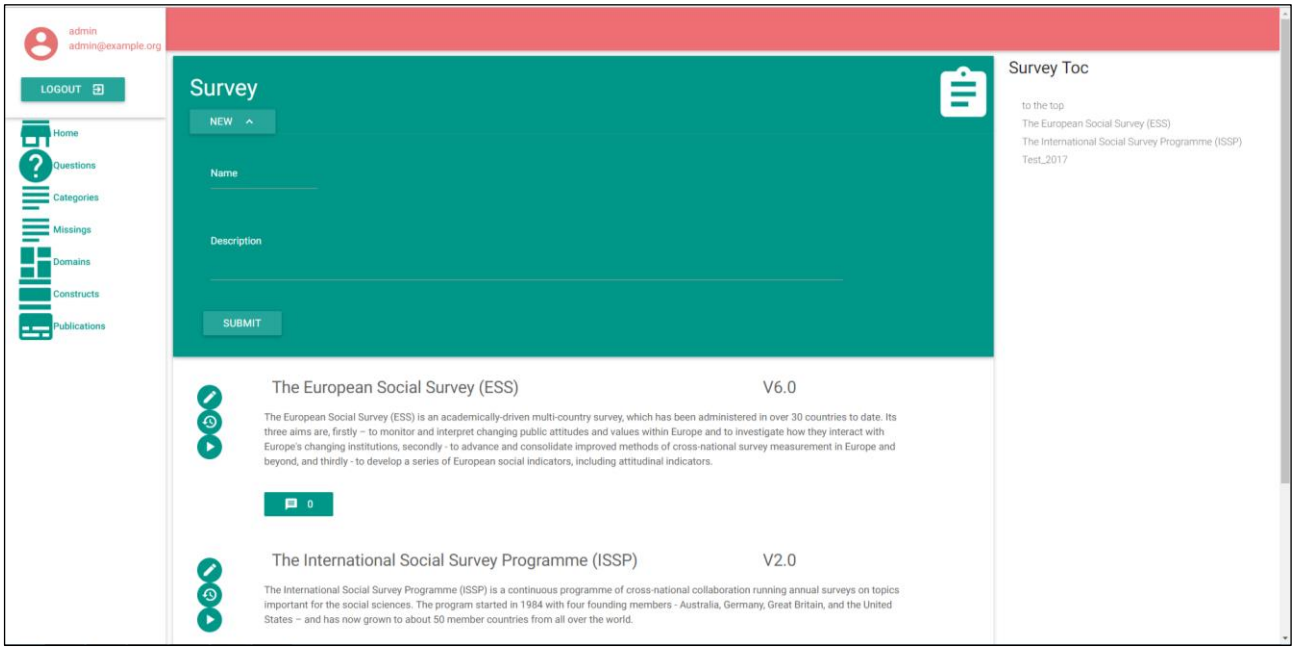
4.1 Create a survey

The QDDT home screen gives a list of surveys already set up in the QDDT. To set up a new survey (e.g. the ESS) within the tool:

1) Click on the NEW button

2) Enter the name and a short description for the survey

3) Click on the SUBMIT button.



4.2 Create a study

Each survey is divided into studies i.e. the years or rounds of a survey that have been fielded. From the survey listing page, click on to see a list of the different studies entered under a given survey. To enter a new study:

1) Click on the NEW button

2) Enter the name and a short description for the study

3) Click on the SUBMIT button.

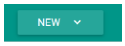
4.3 Add a module

Studies are divided into modules or question blocks. From the studies listing click on  to see a list of the different modules entered under a given study

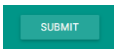
Modules may be either “New” i.e. addressing a topic not previously covered on the ESS or “Repeat” i.e. a repeat of a module asked in a previous round.

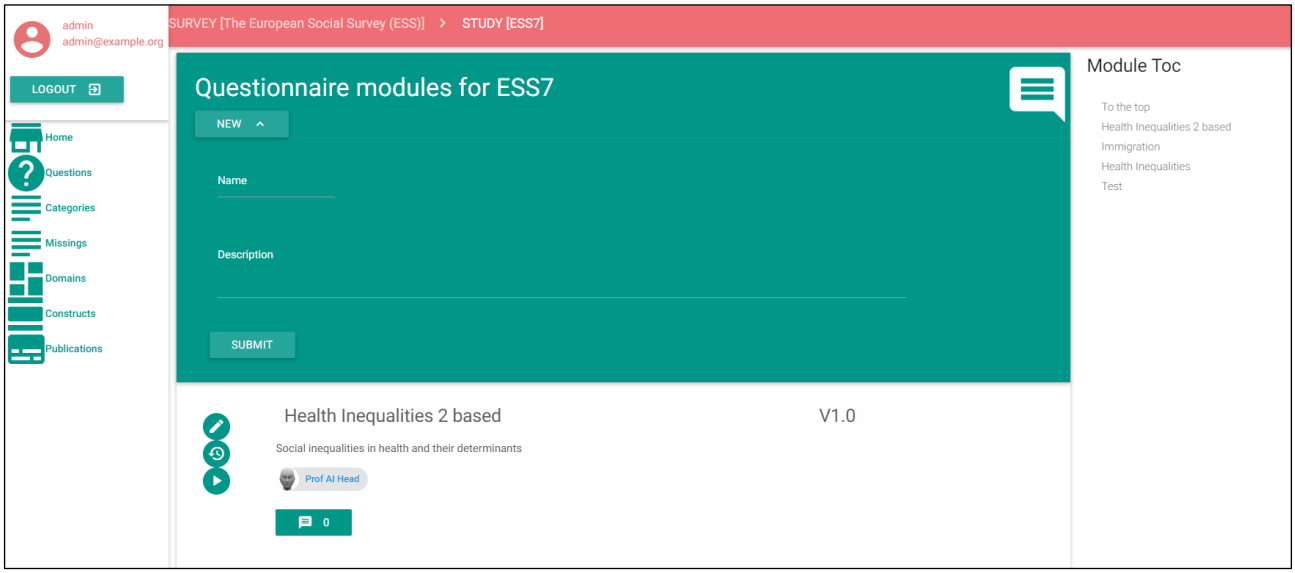
4.3.1 Create a new module

To create a brand new module within the QDDT the procedure is the same as with “Survey” and “study” i.e. to enter a new module:

1) Click on the  button

2) Enter the name and a short description for the module

3) Click on the  button.



4.3.2 Copy a repeat module

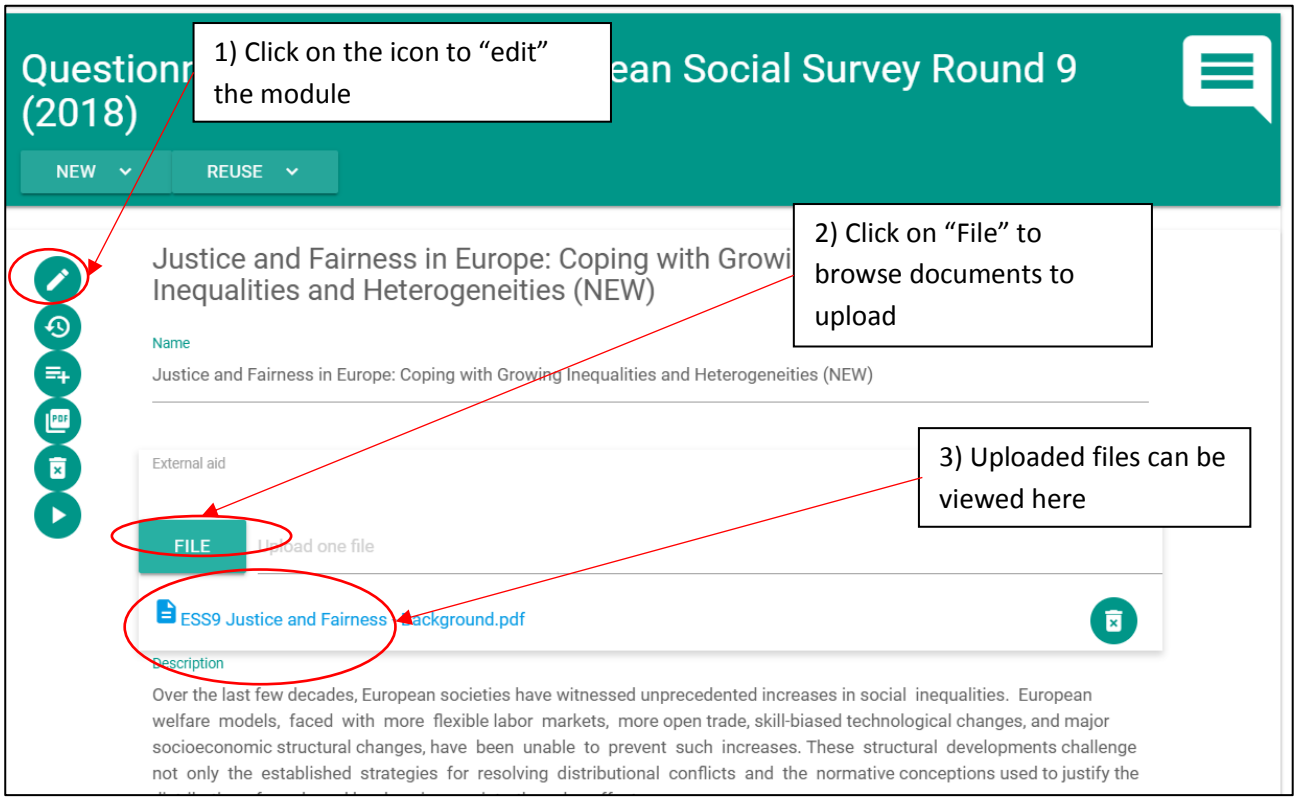
This feature is not yet fully implemented and should not be used. A 'Repeat Module' should be entered into the QDDT by creating a new module. It is possible to populate the module by reusing existing concepts (See Section 5.3)

There is currently no obvious way within the QDDT to signal whether a module is new or repeat (other than signalling this in the module title). This feature could potentially be added to a later version.

The next section describes how to populate a module with concepts and question items.

4.4 Upload supporting documents

It is possible to upload PDF files containing background or supporting information to the QDDT and store these under a particular survey, study or module. For example, to upload a PDF explaining the theoretical rationale and conceptual model for a rotating module.



NOTE

Early on in the questionnaire design process, the following information should be uploaded for each module:

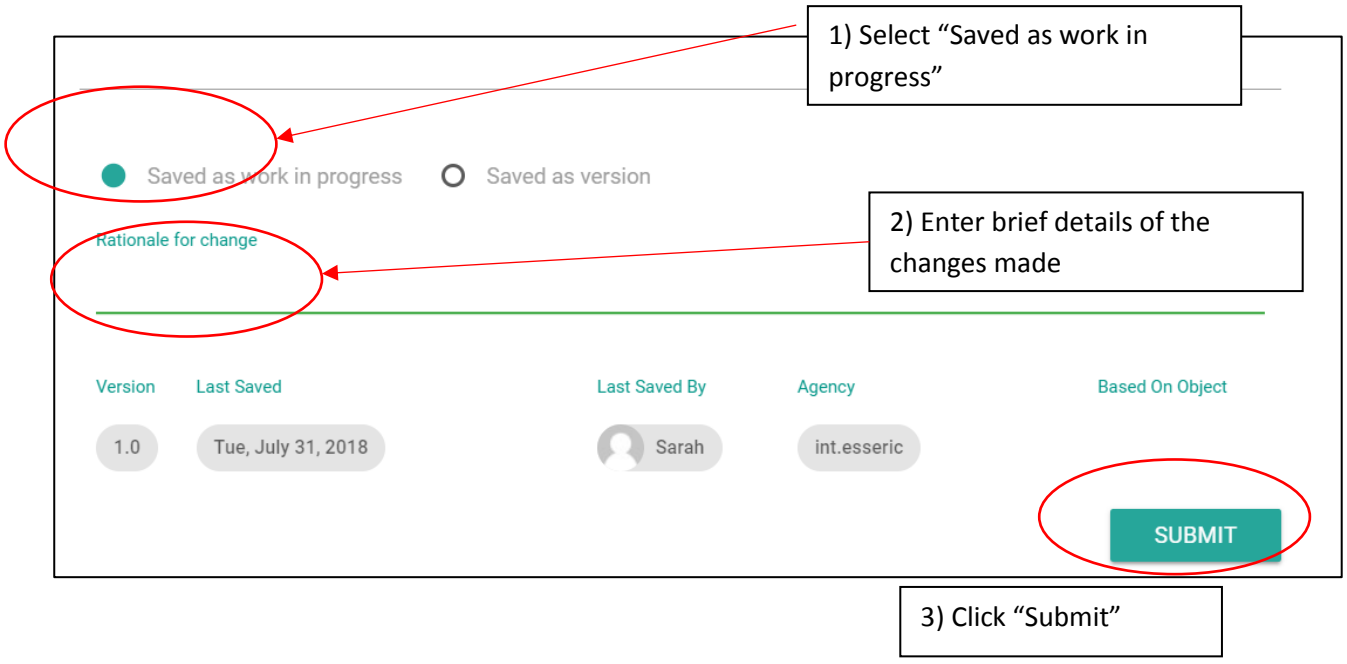
- The rationale for the module, its aims and objectives
- The theoretical approach adopted by the module
- The conceptual framework to be followed. This should include where possible a diagram showing how the concepts to be included in the module are expected to relate to one another

This background information should be revisited periodically to ensure that it continues to reflect the module as it develops. A replacement document can be uploaded at any point in time.

Throughout the questionnaire design process other supporting documents may also be shared via the QDDT. This may include results from pre-testing.

It is currently only possible to upload supporting information at module level, not for individual concepts or questions.

Because attaching a document is recognised as an 'edit' to a module, versioning will be required. As a default, users should follow the procedure below for versioning. See Section 7 for more on versioning.



A icon will appear next to the concept to indicate that it has been saved as a work in progress. A new (major) business version will need to be assigned before the concept is next published (this will be done by ESS HQ).

5. Populate a survey module

This section describes how to populate a module with concepts and question items. Users designated as "editors" or "conceptual editors" within the QDT can perform the various functions described below.

ESS modules are broken down into concepts i.e. what it is that we want to measure. Complex concepts may be further broken down into sub-concepts. Each (sub)-concept is operationalised using one or more question items.

To view the contents of a module, click on the icon next to the module name. A list of any concepts already entered for that module will be visible in the middle panel and in the "ToC" on the right hand side.

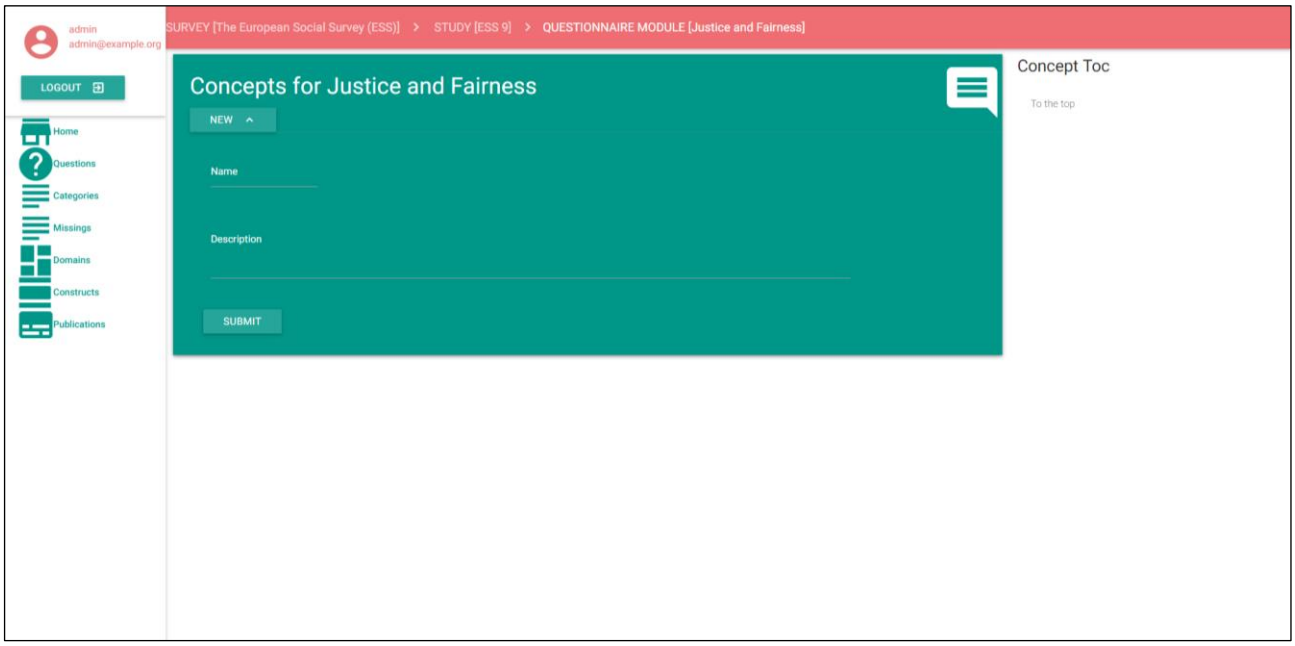
5.1 Create new concepts and sub-concepts

The procedure for entering a new concept is the same as for entering a new module. From within the module:

1) Click on the NEW button

2) Enter the name and a short description for the concept

3) Click on the SUBMIT button.



NOTE

The current paper template used by the ESS includes a box for the QDT to specify how a concept may be related to others in the module. There is not currently a separate box for this within the QDDT. This could potentially be added to a later version.

For the time being, information on how a concept is expected to be related to other (sub)concepts in the module should be added as part of the concept description.

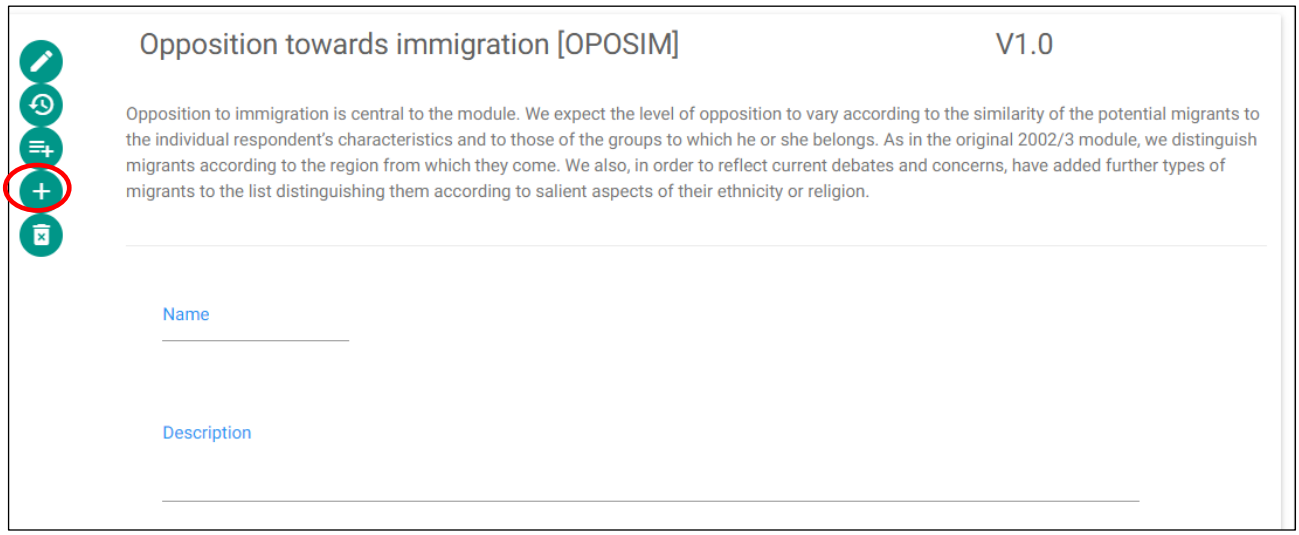
Once a concept has been created, it is possible to create sub-concepts nested within the overarching complex concept. To create a sub-concept for a concept:

1) Click on the button next to the concept of interest

2) Enter the name and a short description for the sub-concept

3) Click on the SUBMIT button.

This can be done as many times as necessary to create all the sub-concepts associated with a particular complex concept.

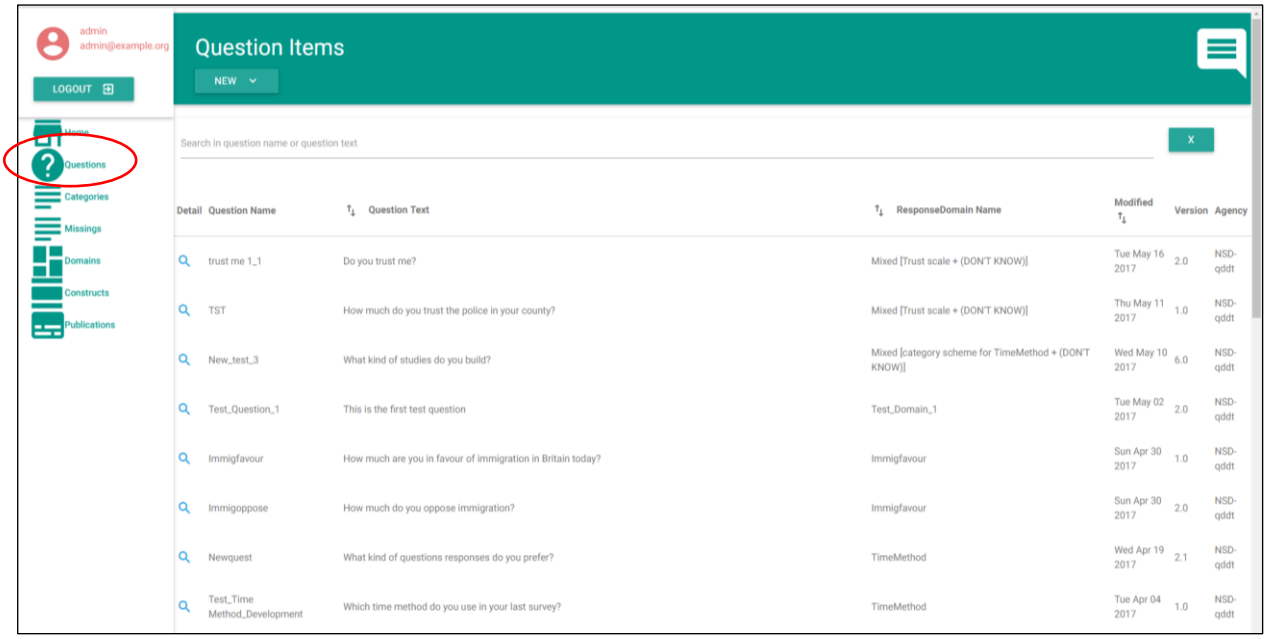


5.2 Attach question items to concepts

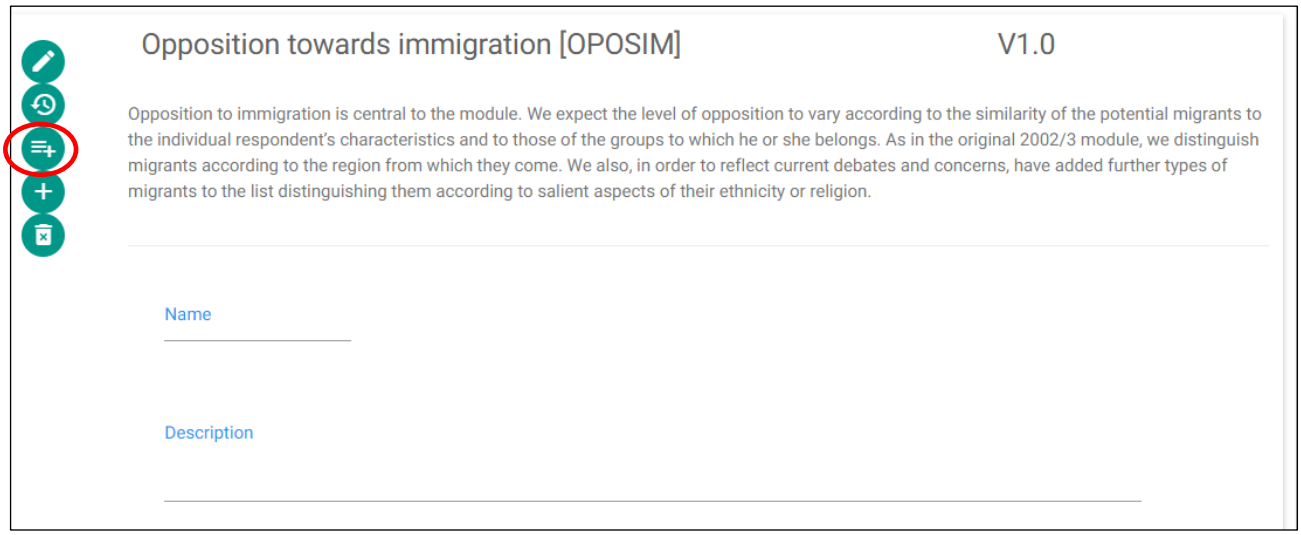
Concepts and sub-concepts are operationalised by question items. Before you can attach a question item to a concept, the question item needs to be available within the QDDT's question listing.

Note: To check whether the required question item is already available within the QDDT click on 

in the left hand menu and search for the question name or the question text. If not, a new question item needs to be created (see Section 6).

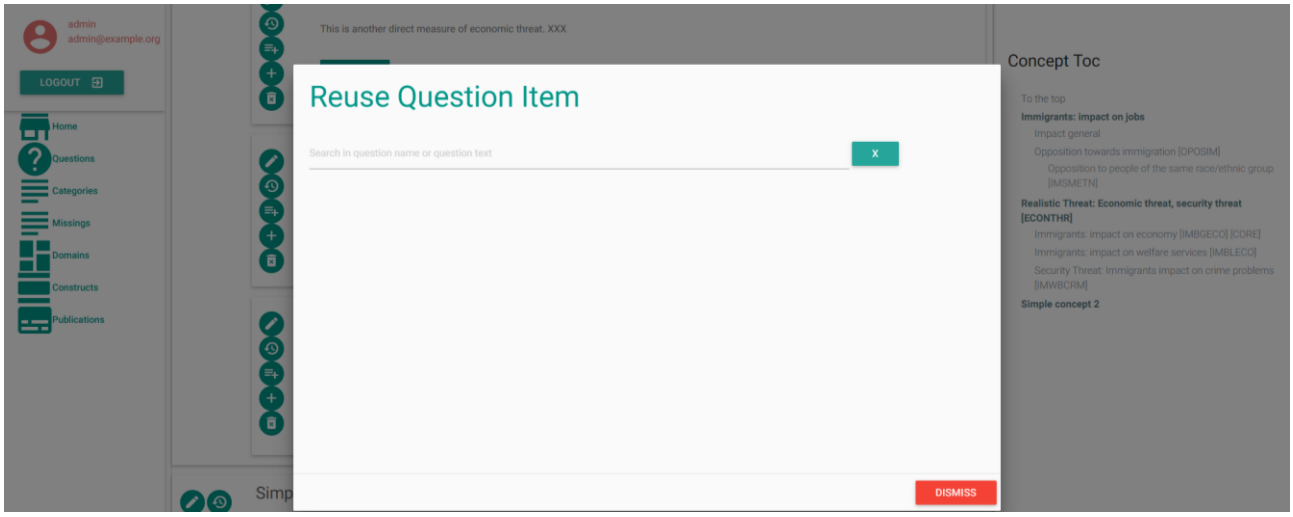


Assuming that the question item has already been created, click on the  icon next to a concept to attach a question item to that concept.

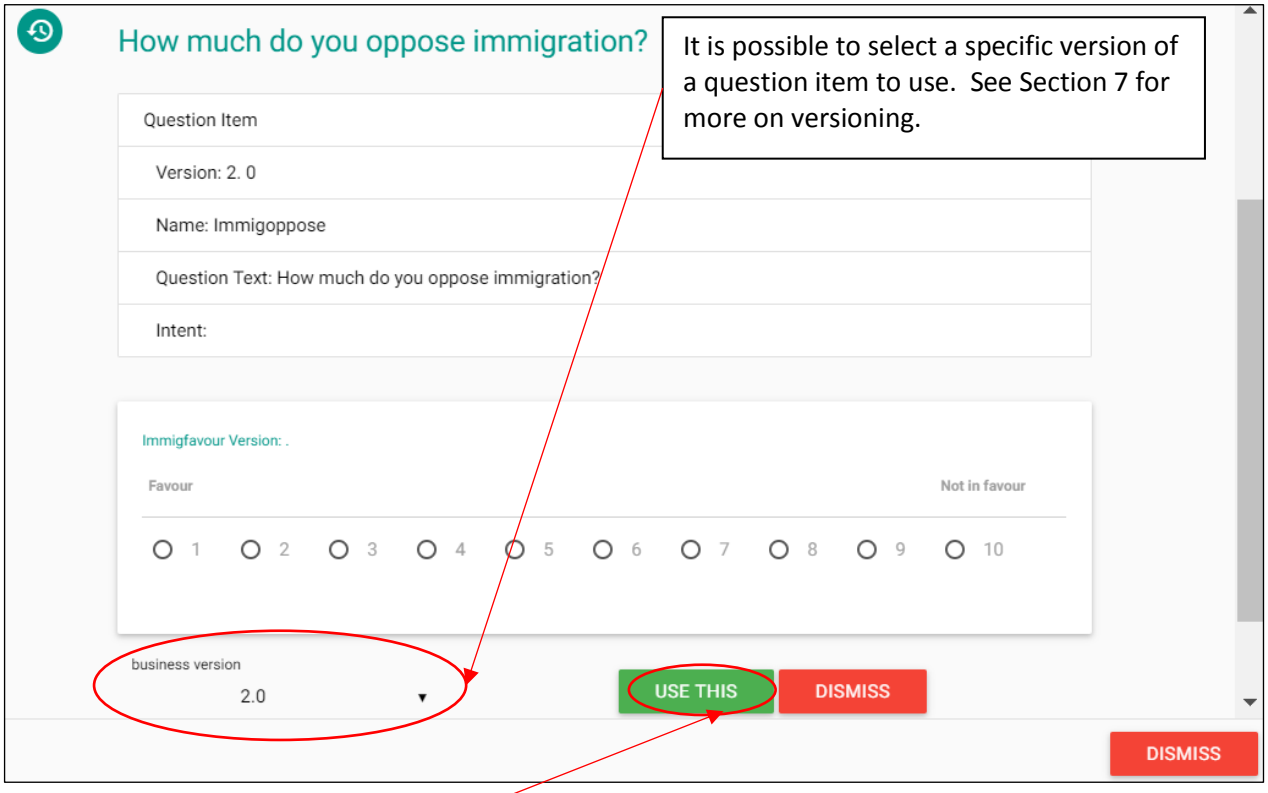


A pop up window will appear prompting you to select a question item. Search for the desired question item - using the question name or wording - in the box provided. Select the desired question item from the search results.

Use the search box to search (by question name or question wording) for questions to attach



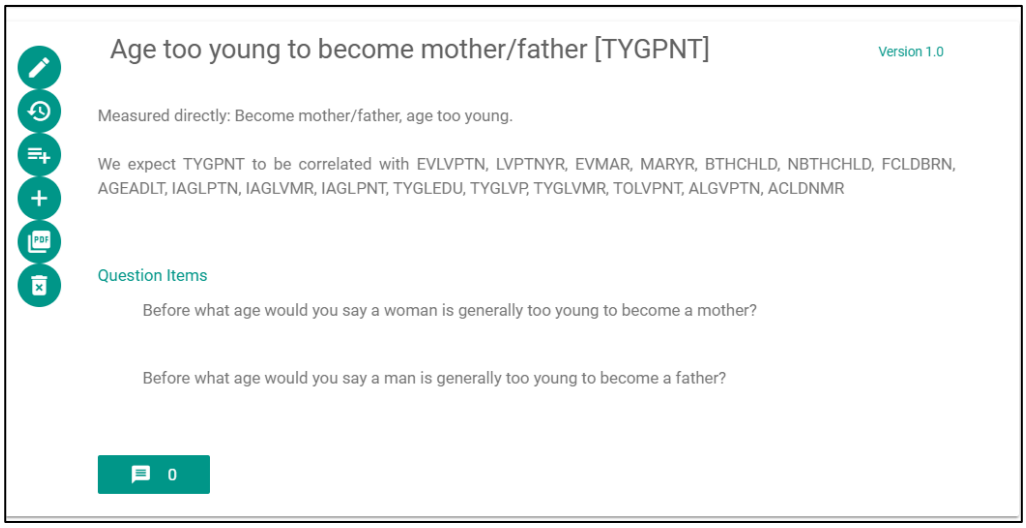
Once a question item has been selected, details of that question item including, for example, the response domain it uses, will appear in the pop up window. Scroll down to see all the information and verify that the correct item has been selected.



It is possible to select a specific version of a question item to use. See Section 7 for more on versioning.

If the correct item is selected click USE THIS. Otherwise you can click DISMISS and search for an alternative item.

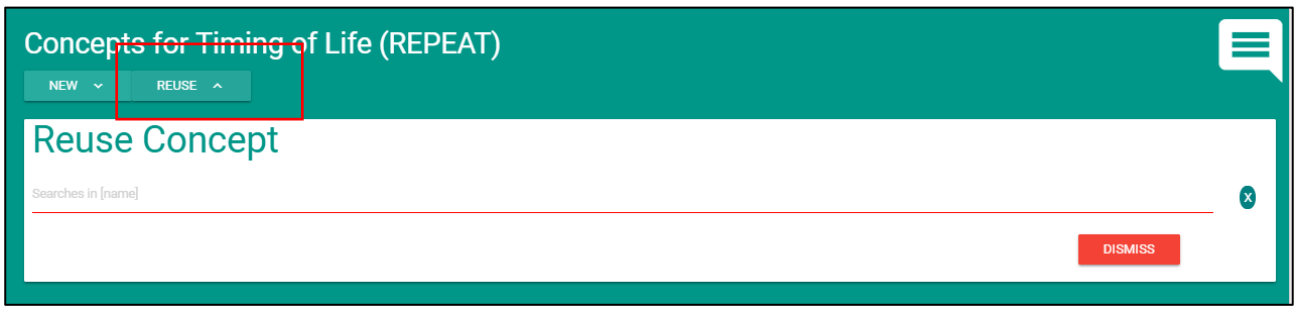
Once a question item has been selected it will appear under the concept description.



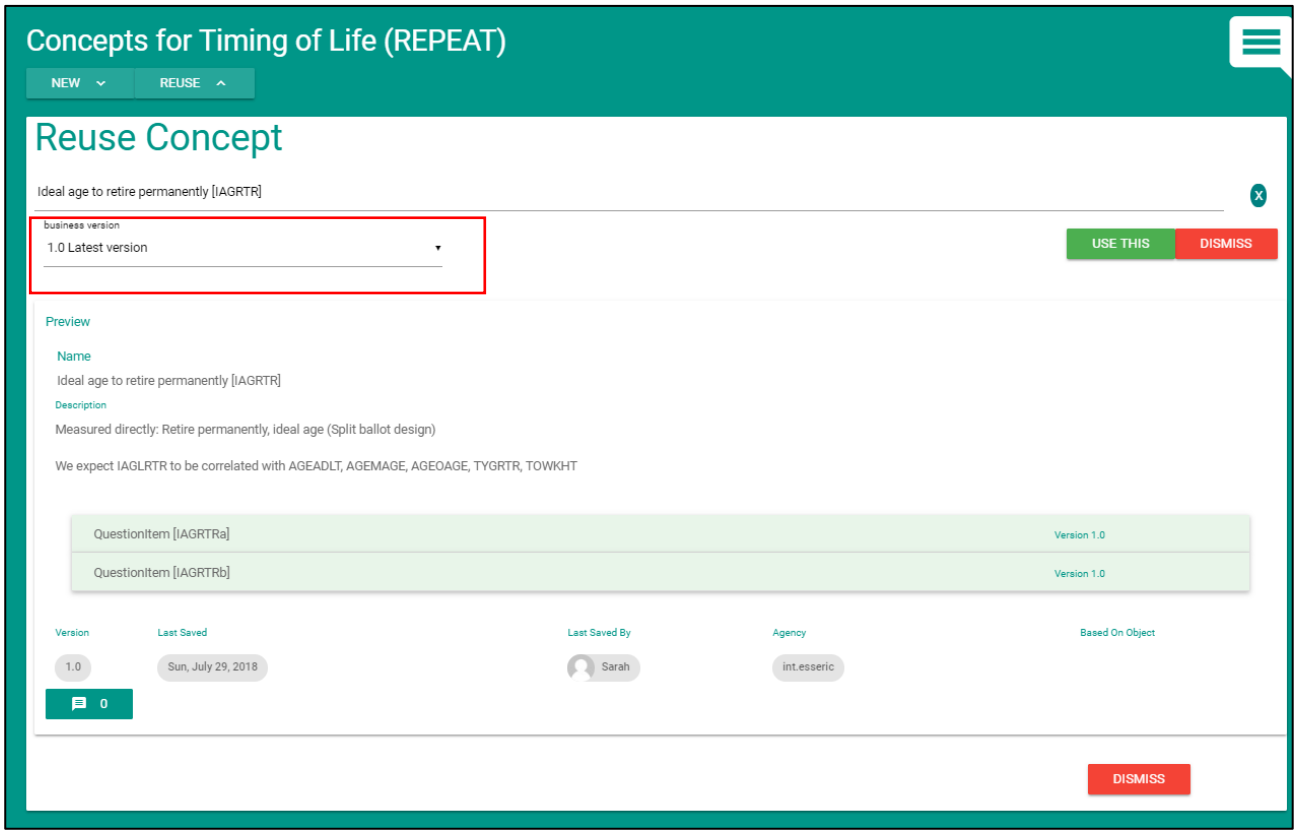
Click on the question wording to view details of the question. Hover over the question and click on − if you wish to remove the current question item from the concept, for example to replace it with an updated version of the same question or a different question.

5.3 Copy concepts from an existing module

Repeat modules can be populated by copying concepts from the previous iteration of the module (provided this has been entered into the QDDT) rather than or as well as defining new concepts. Click on "Reuse" and you will be invited to search from among pre-entered concepts.



As when attaching question items, you can select which version of a concept to reuse. By default you should copy the latest version of a concept. The concept is copied along with any associated sub-concepts and question items.



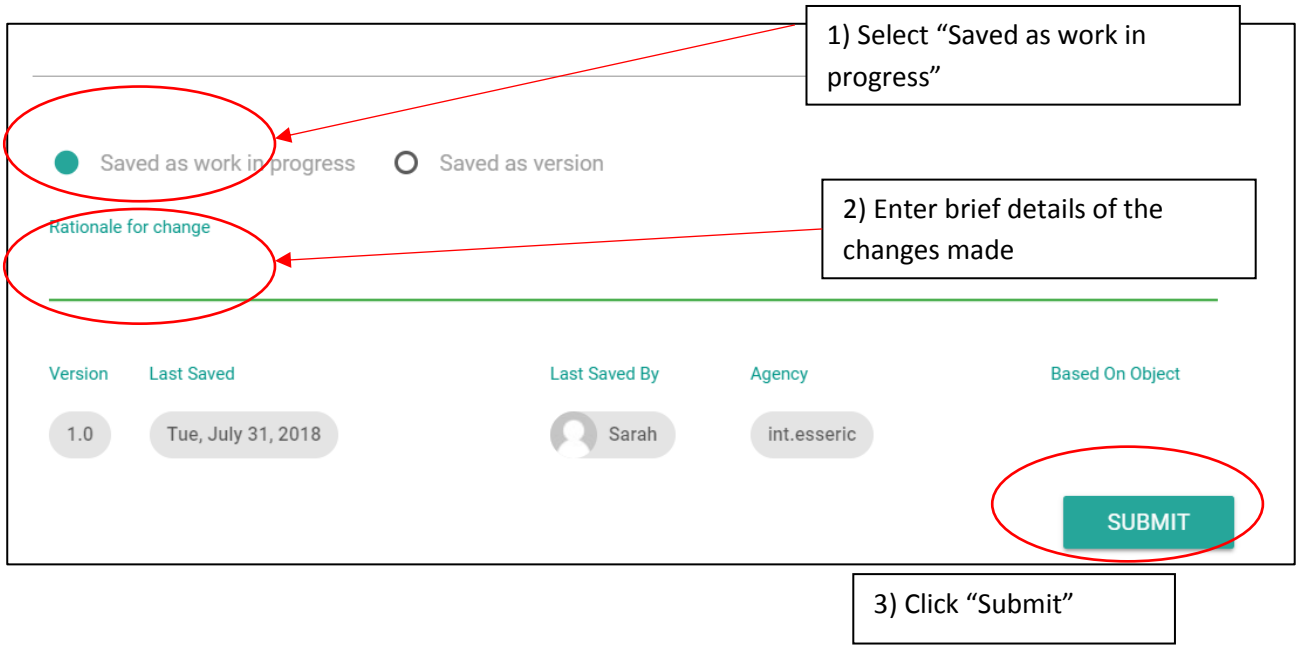
Once copied, the repeat concept can be amended. The concept name or description may be edited (See Section 5.4), sub-concepts can be added or dropped (see Section 5.1 and 5.5) and question items can be added or dropped (see Section 5.2).

Note that if any changes are made to the copied concept, the issue of versioning must be considered (See Section 7). A green ! will appear next to the amended concept to indicate that changes have been made and that versioning should be considered.

5.4 Edit concepts

Sometimes it will be necessary to edit the name or description of a concept. To do this click on the icon and make the required changes.

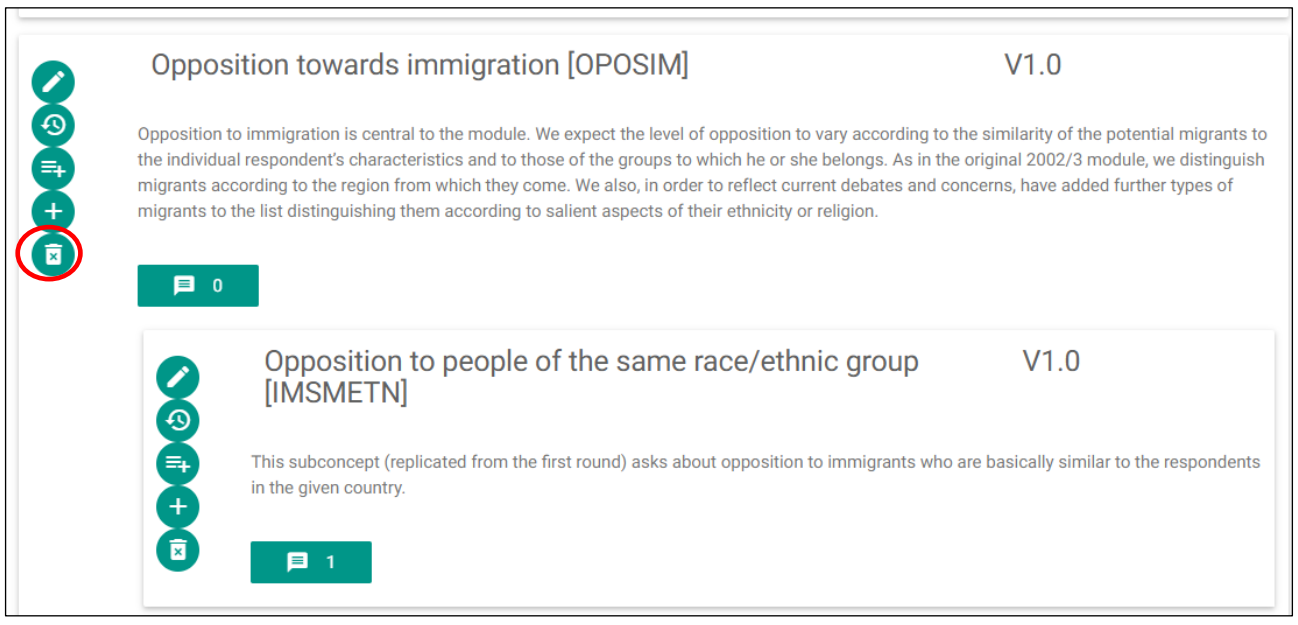
Before you can save the changes, you will be prompted to take a decision regarding versioning. As a default, users should follow the procedure below for versioning. See Section 7 for more on versioning.



A icon will appear next to the concept to indicate that it has been saved as a work in progress. A new business version will need to be assigned before the concept is next published. ESS HQ will take responsibility for this.

5.5 Drop concepts from a module

During module development you may wish to drop concept(s) from a module. This is done by clicking on the icon next to a concept.



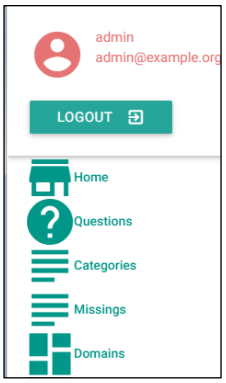
If you delete a complex concept, all associated sub-concepts will also be deleted. It is possible to delete individual sub-concepts from a complex concept whilst retaining others.

Once a concept has been deleted from a module it is gone from the QDDT; the only way to add it back into the module would be to re-create the concept. **Therefore, the option to delete concepts should be used with caution and only once agreed by all parties.** A record of any deleted concepts will be available if the concept was published earlier in the questionnaire development cycle (see Section 8) but the information cannot not be reused/reinstated to the module.

NOTE

A bug in the QDDT software means that it is not possible to scroll within an element. This means, for example, that if there is a very long element description, not everything will fit on screen at once. Most importantly it may mean that the 'submit' button will be off screen and cannot be reached. The user needs to use the zoom feature on the browser to shrink the content sufficiently to access the 'submit' button before zooming back out.

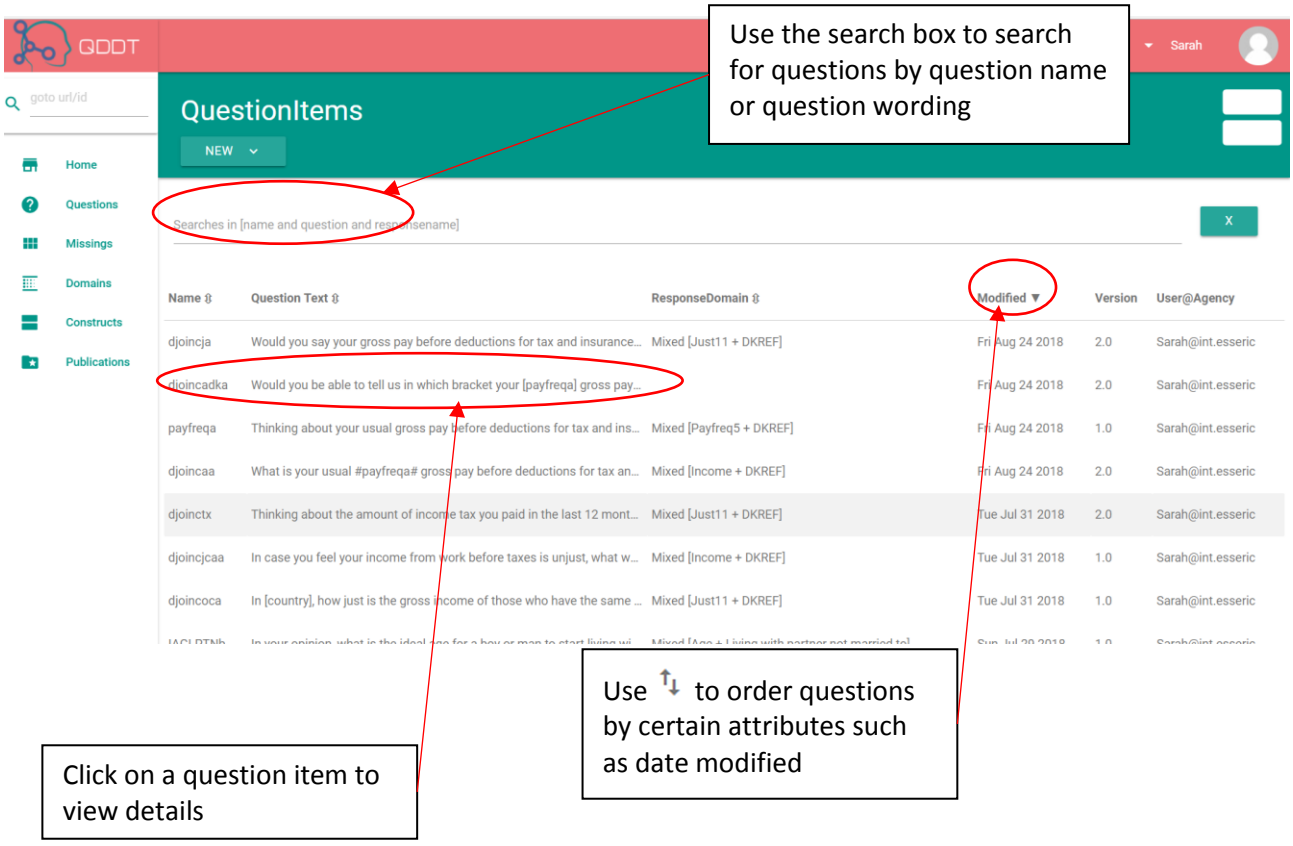
6. Question items



Question items are the main building block of the QDDT. Modules are created by attaching question items to the concepts we want to measure and question items are combined to make a survey instrument i.e. a questionnaire. Question items are created and edited within the questions window. To access the questions window click on the Question icon on the left hand panel.

6.1 View existing question items

The question window provides a list of all of the question items already entered into the QDDT and available for use.

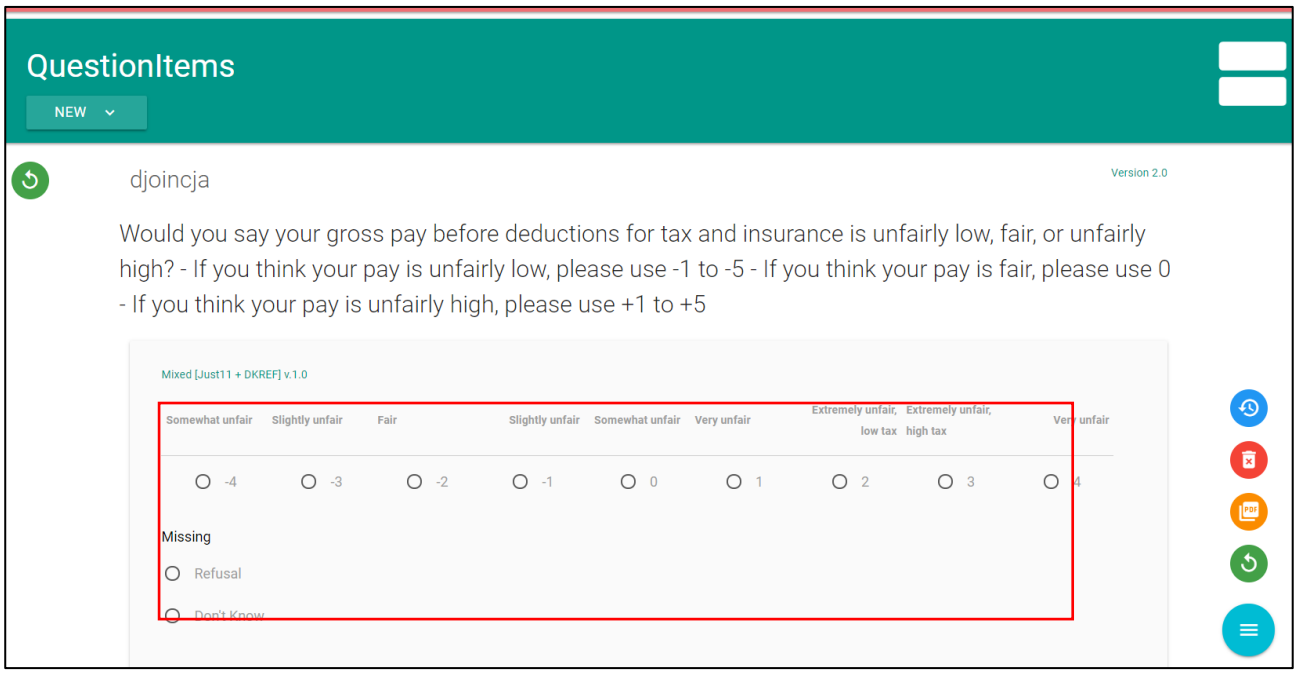


NOTE

The question window lists all question items - not just those which have been entered for a specific survey, round or module. This means that the QDDT can provide a way for surveys to share questions and learn from one another and for question items to be reused across rounds. It also means that the question listing may become very long. Options for filtering by survey, round and/or module will be explored.

Use the search function to identify a specific question. It is optimal to search using the question name. However, it is also possible to search using question wording.

When you click on an item to view details of the question item you can see the full question wording, including response domain and any associated notes e.g. translation annotations. The QDDT also provides details of the studies, modules and concepts where this question currently appears.



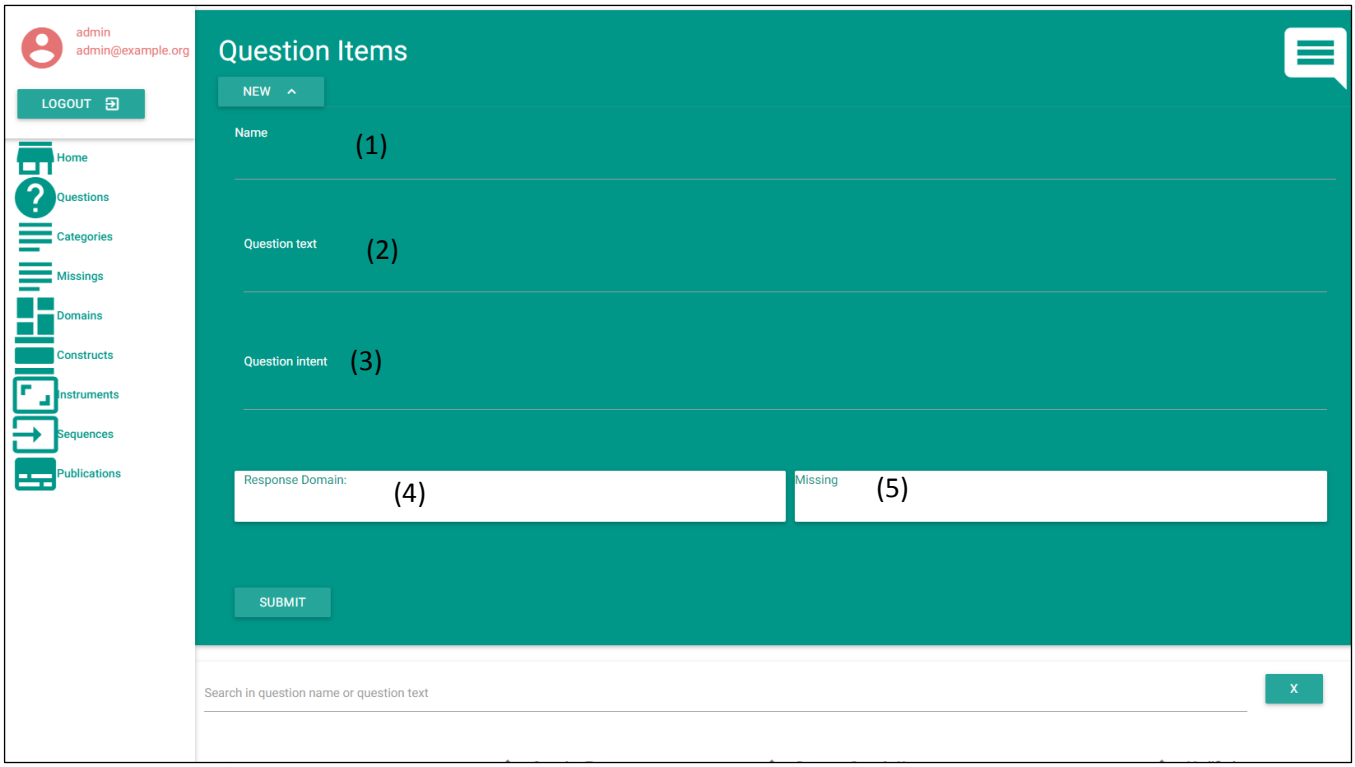
The detailed question window also enables the user to see the question item's version history by clicking on the  icon in the bottom right hand corner and then selecting  . See Section 7 for more details.

To return to the main question listing either click  from within the question window or click 

in the left hand menu.

6.2 Create new question items

To create a new Question Item, click on the NEW button in the question listing screen. You will see this screen in which to enter details of the new question item.



(1) **Name**: Enter a short question name for ease of reference

(2) **Question text:** Enter the question text

(3) **Question intent:** Use this box to enter clarificatory notes on a question's meaning and/or how it should be fielded (see Appendix for examples). When documenting the ESS, the primary purpose of this box will be to document translation annotations.

(4) **Response domain:** Specify the type of response that can be given to a question by attaching a response domain. The response domain must first be entered separately into the QDDT (see Section 6.2.1 below) and then attached to a question (see Section 6.3.1 below).

(5) **Missing values:** Specify the missing values that will be available for the question. Missing values must first be entered separately into the QDDT (see Section 6.2.2 below) and then attached to a question (see Section 6.3.2 below).

6.2.1 Create response domains

Before a response domain can be used in a question item it must first be entered separately into the QDDT.

Click on “Domains” in the left hand menu to view, enter or edit a response domain.

Similar to the question window, the searchable Domains window lists all response domains currently entered into the QDDT. The QDDT lists domains by type i.e. depending on whether the response domain is a scale domain, a code domain, a data time domain, numeric or text.

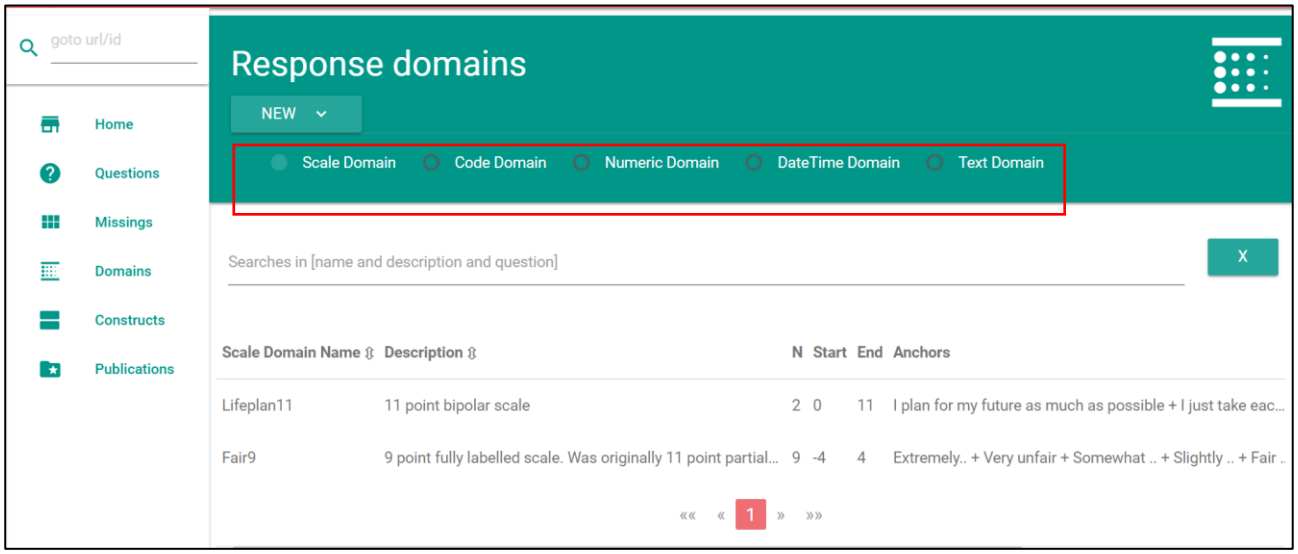


Figure 3 Types of response domain within the QDDT

Scale Domain

B28 **STILL CARD 11** On the whole how satisfied are you with the present state of the economy in [country]? Still use this card.

Extremely dissatisfied										**Extremely satisfied**	**(Refusal)**	**(Don't know)**
00	01	02	03	04	05	06	07	08	09	10	77	88

Code Domain

B39 **STILL CARD 15** How about people of a different race or ethnic group from most [country] people? Still use this card.

Allow many to come and live here	1
Allow some	2
Allow a few	3
Allow none	4
(Refusal)	7
(Don't know)	8

Numeric Domain

ASK ALL WHO HAVE GIVEN BIRTH TO/FATHERED A CHILD AT D8 (IF D8 = 1)
D9 How many children have you ever given birth to/fathered?

INTERVIEWER: Include all children born alive.

TYPE IN ☐☐

(Refusal) 77
(Don't know) 88

Text domain

C21 What citizenship do you hold?
[to be coded into pre-specified ISO 3166-1 (2-character)]

WRITE IN _____

(Refusal) 77
(Don't know) 88

Date time domain

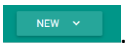
C24 What year did you first come to live in [country]?

WRITE IN YEAR: ☐☐☐☐

(Refusal) 7777
(Don't know) 8888

To add a new response domain:

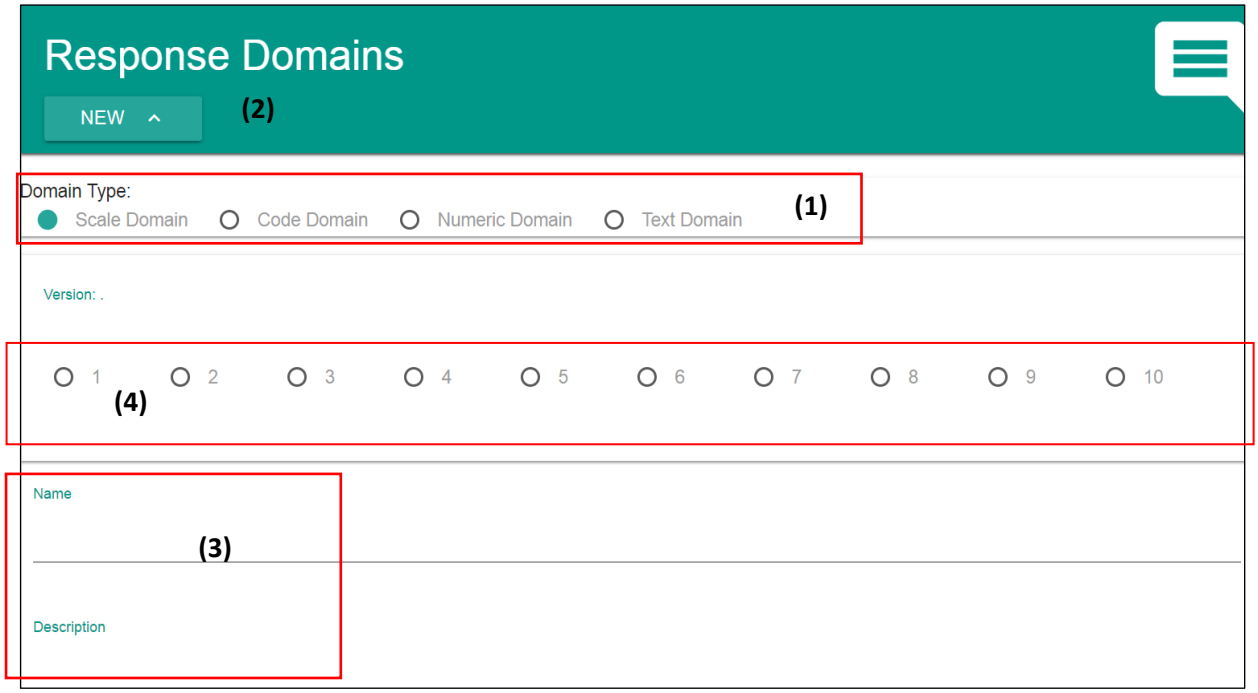
1) Select the domain type you wish to create from the menu at the top of the screen

2) Click 

.

3) Add a name and description for the domain. Description is optional

4) The top of the domain window allows you to see the response domain take shape as you enter information to create it.



The lower half of the domain window varies by domain type and prompts you to specify all of the necessary features of the chosen response domain type.

Scale Domain

To create a scale domain such as that shown in Figure 3:

1) Enter numeric values for the start and end point of the scales.

2) Specify whether the scale should display horizontally or vertically.

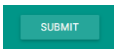
3) Specify the number of anchor points i.e. the number of scale points to which labels should be attached.

4) Specify which scale points should have labels attached.

5) Enter the category labels to be attached to the anchor points.

As you start to enter category labels, predictive text will indicate if the label is already entered in the QDDT and allow you to select it. A blue box appearing around the category label indicates that the label is not already stored in the QDDT. This can be useful for highlighting typos, for example to show that you may have typed “agree” rather than “agree” as the label.

To enter a new category not already listed in the QDDT, type in the label and press the “return” key on your keyboard. The entered category is now saved in the QDDT.

6) Click on the 

button.

Before clicking submit you can scroll up to the top of the window to preview how the scale will appear in the survey instrument.

Code Domain

To create a code domain such as that shown in Figure 3:

1) Specify the number of categories the response domain has

2) Enter the category label for each code

As you start to enter category labels, predictive text will indicate if the label is already entered in the QDDT and allow you to select it.

To enter a new category not already listed in the QDDT, type in the label and press the “return” key on your keyboard. The entered category is now saved in the QDDT.

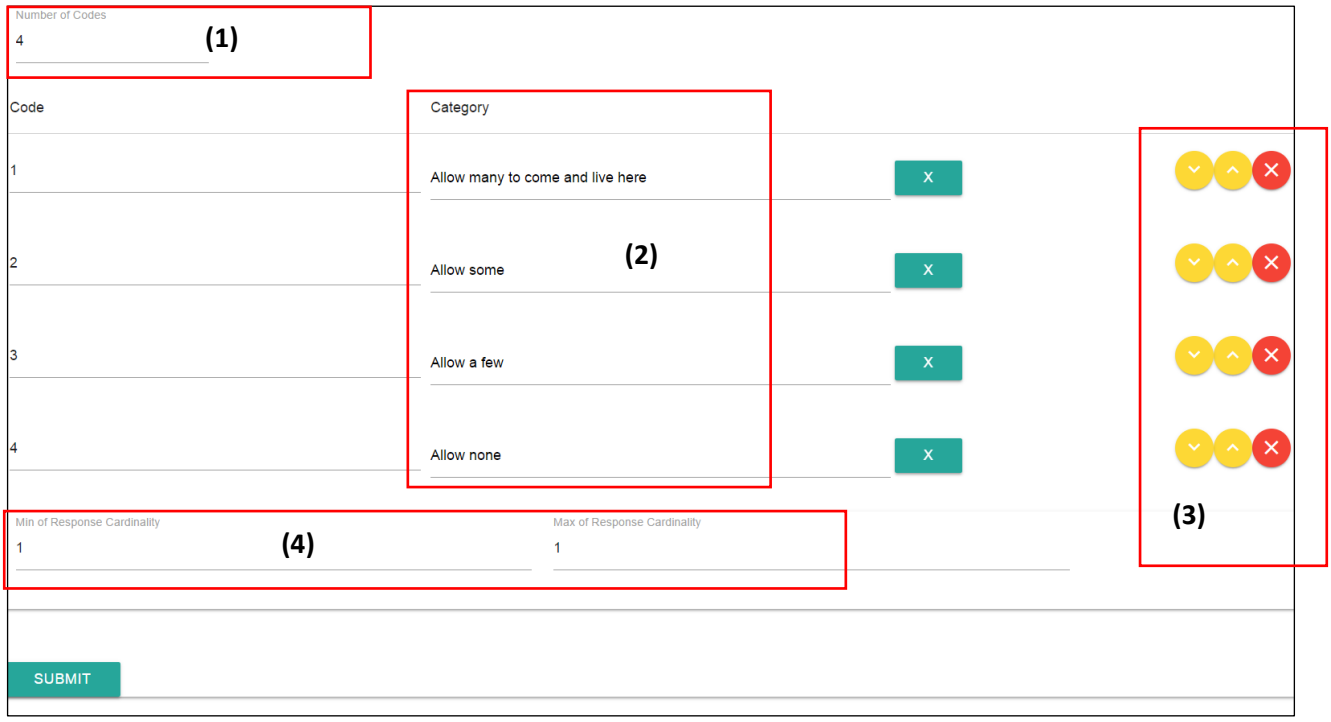
3) (If necessary) use the red up and down arrows to change the order of categories or use the yellow x to delete a label.

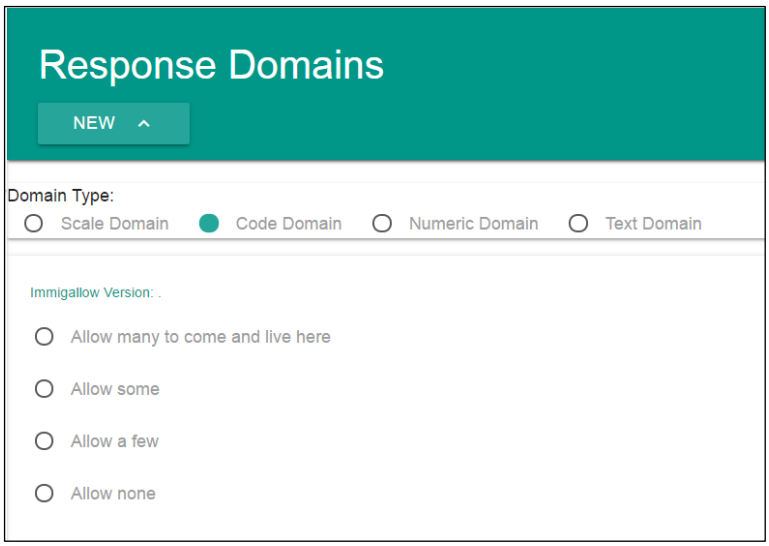
4) Specify the response cardinality i.e. the minimum and maximum number of categories that the respondent can select

5) Specify the alignment of category labels

5) Click on the SUBMIT button.

Before clicking submit you can scroll up to the top of the window to preview how the scale will appear in the survey instrument.





Numeric domain

To create a numeric domain such as that shown in Figure 3:

1) Enter the minimum and maximum values that can be entered

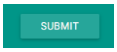
2) Click on the SUBMIT button.

Before clicking submit you can scroll up to the top of the window to preview how the scale will appear in the survey instrument.

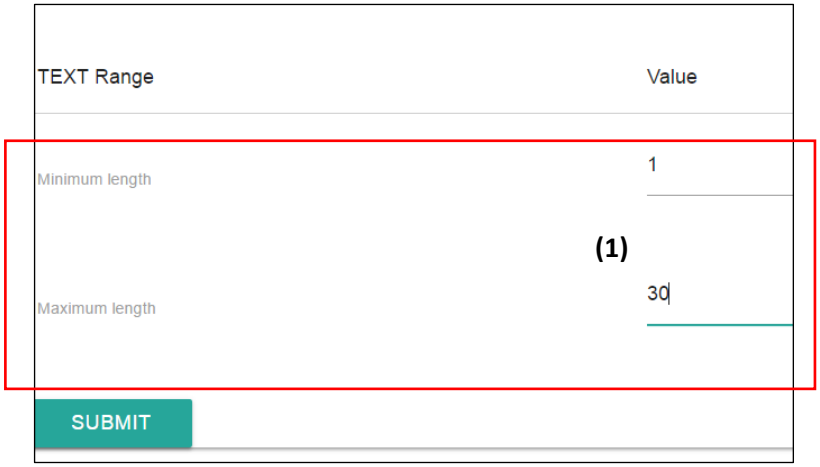
Text Domain

To create a text domain such as that shown in Figure 3:

1) Enter the minimum and maximum length of the text string that can be entered.

2) Click on the  button.

Before clicking submit you can scroll up to the top of the window to preview how the scale will appear in the survey instrument.



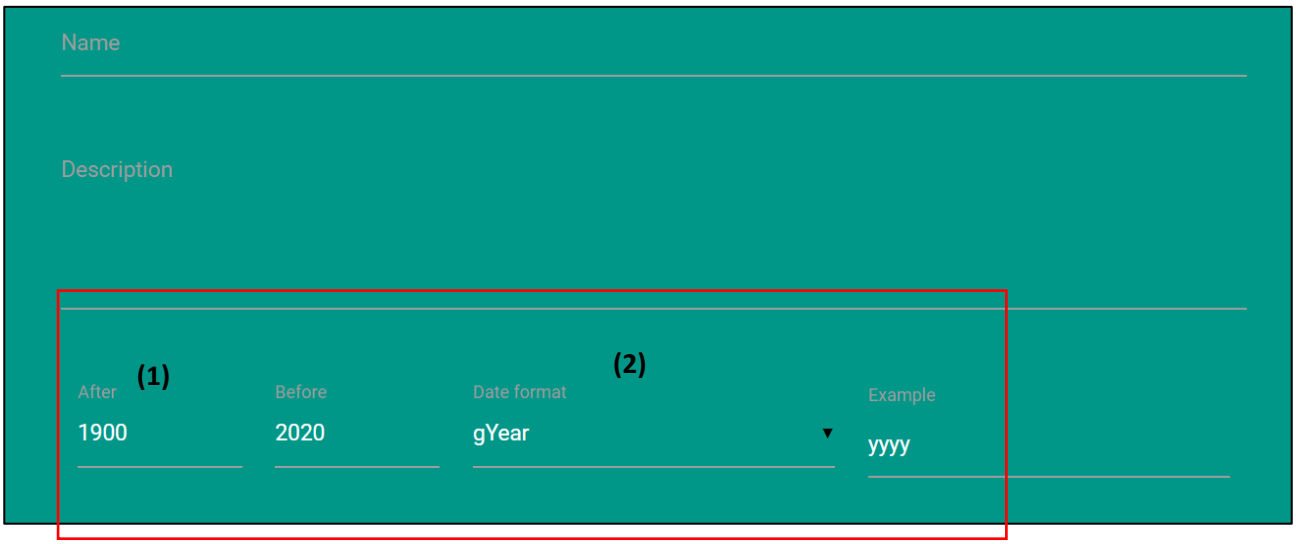
Date time Domain

To create a date time domain such as that shown in Figure 3:

1) Enter the lower and upper bounds for the date/time range

2) Choose the appropriate date format

3) Click on the SUBMIT button.



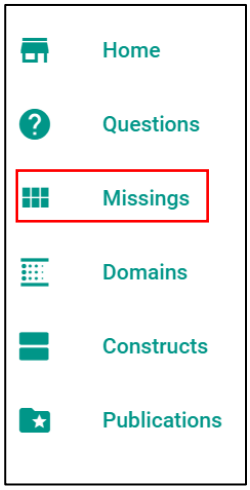
6.2.3 Missing values

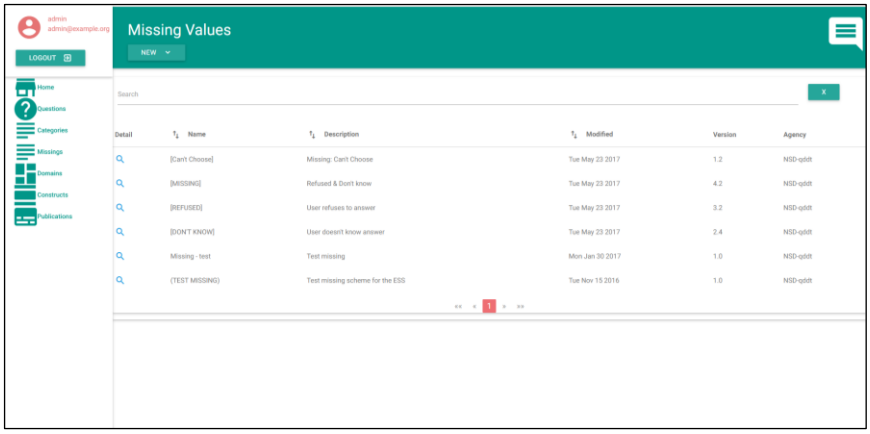
Missing values have to be specified as a separate element within the QDDT and then attached to individual question items. Once entered into the QDDT the same set of missing values can be reused for multiple question items. The standard missing category set of “Refusal” and “Don’t know” will already be available for (re)use.

NOTE

Missing values include any response categories which are kept hidden from the respondent but which are available for the interviewer to code as necessary. These are the response categories shown in parentheses in the ESS questionnaire and, as well as the usual “don’t know” and “refusal” may include codes such as “it depends”. For some questions it may, therefore, be necessary to create a bespoke missing domain.

Click on **Missings** in the left hand menu in order to view sets of missing values entered into the QDDT or (if necessary) enter a new missing set.





To enter a new set of missing values:

1) Click on the NEW button.

2) Enter a name and description for the missing category set.

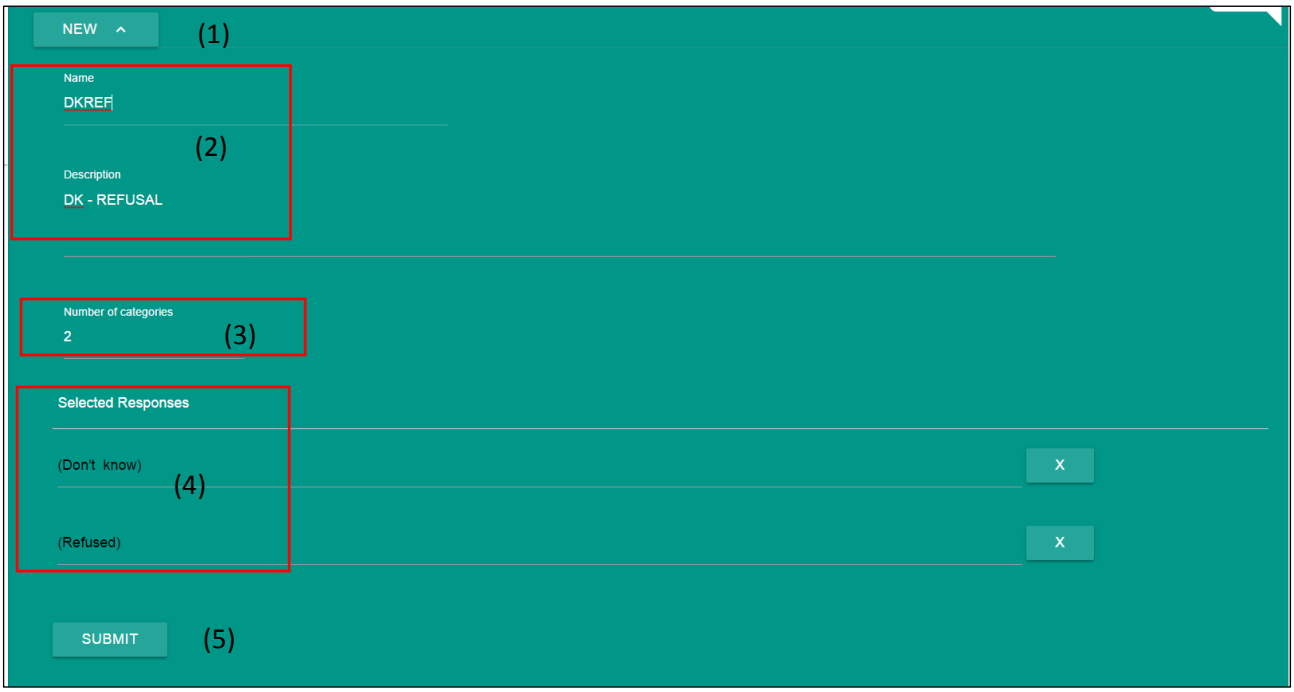
3) Enter the number of categories to be included in the missing set.

4) Add category labels for each response category in the missing set.

Enter missing categories in the same way as you would enter categories for any other response domain (see Section 6.2.1).

Note: values for the missing categories e.g. 77, 88 are not assigned at this stage. Values are assigned when you build a question item and combine a response domain and missing set (see Section 6.3.2).

5) Click on the SUBMIT button.



6.3 Attach a response domain and missing values to a question item

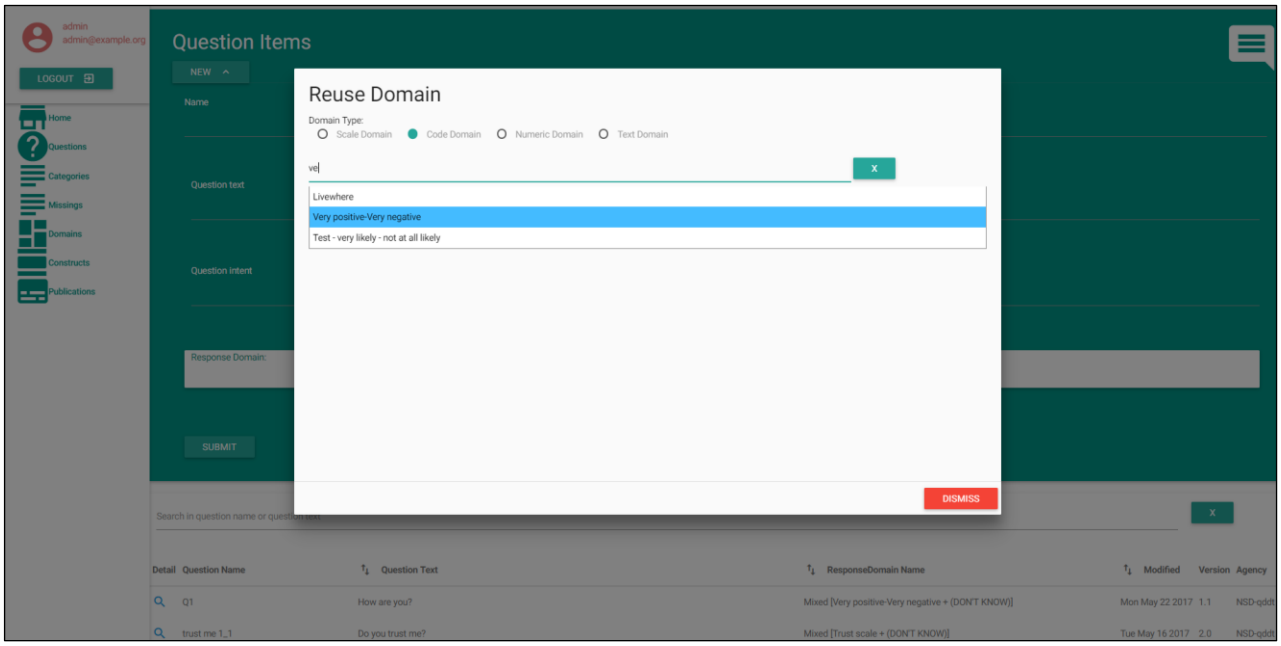
Once response domains and missing values have been created they can be attached to question items.

Access the desired question item by selecting the **Questions** window from the left hand menu and then searching by question name or question text. Click on the item to view and edit details of the question item (see Section 6.1).

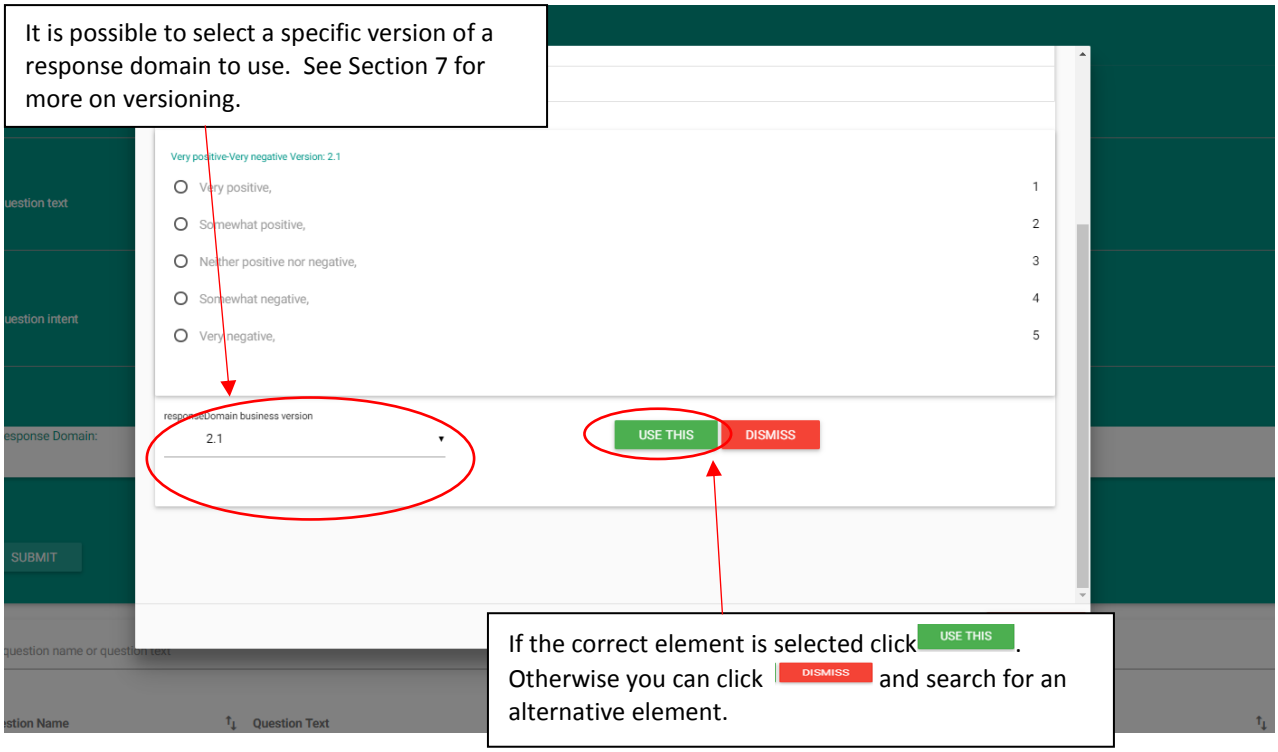
6.3.1 Attach a response domain

Scroll over the question item's "Response domain" box to display and click on the + button.

A pop up window will appear prompting you to select a question item. Select the type of domain you wish to attach then search for a specific domain using the domain name. Select the desired question item from the search results.



Once a response domain has been selected, details of that domain will appear in the pop up window. Scroll down to see all the information and verify that the correct element has been selected.

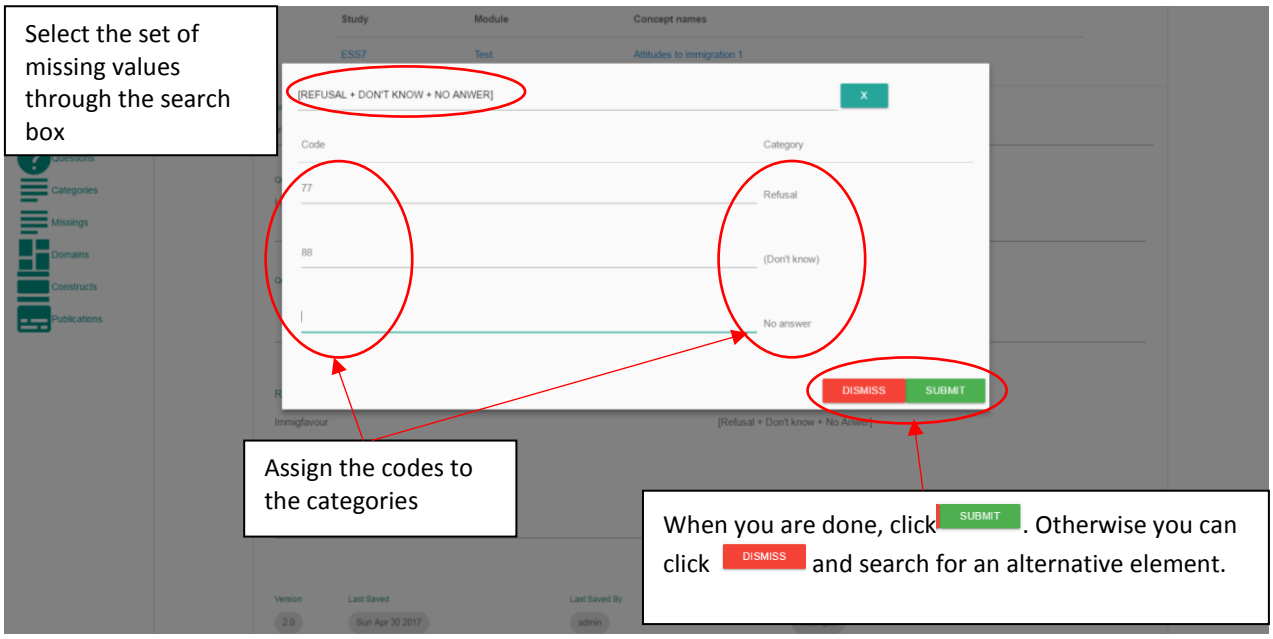


To remove a response domain attached to a question item, for example to replace it with a different response domain, scroll over the question item's "Response domain" box to display and click on the button.

6.3.2 Attach missing values

To attach missing values to a question item, Scroll over the question item's "missing" box to display the button. Click here to select a set of missing values.

When the pop up window appears search for and select the desired set of missing values. You will be prompted to enter codes for the missing values e.g. 7, 8 or 77, 88. Codes should be chosen based on the codes already taken by the response domain



Note that once missing values are attached, the response domain displays as "mixed" that is the main response domain + missing value set. To change either of these elements, the whole "mixed" domain must be removed and (once any necessary changes have been made to the domain) reattached to the question item.

Response Domain (V 1.0)	Missing
Mixed [Just11 + DKREF]	DKREF

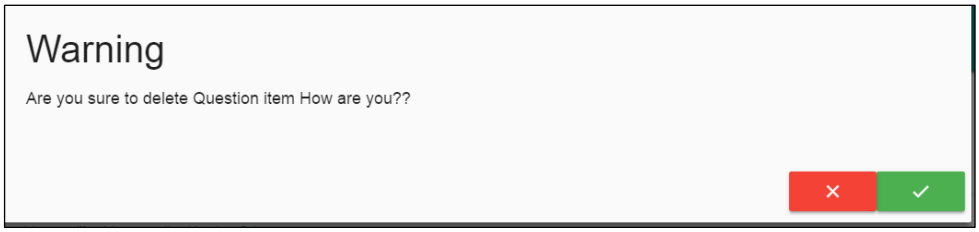
6.4 Delete a question item

It is possible to delete question items from the element listing stored within the QDDT. **However, this should be done with caution**. You should first check that the question item is not "in use" i.e. attached to a concept as part of a module. If a question item is "in use" this information will be displayed within the question screen.

Access the desired question item by selecting the **Questions** window from the left hand menu and then searching by question name or question text. Click on the item to view and edit details of the question item (see Section 6.1).

Click on the  icon in the bottom right hand corner and then the  icon

A warning message will appear and you can either choose to accept or dismiss the deletion.



The same procedure applies if you want to delete response domains from the listing stored within the QDDT.

NOTE

The QDDT is not equipped with rich text formatting. Sometimes the ESS uses bold or underline in questions for emphasis. This would need to be shown in the QDDT using, for example <bold>Text to bolden</bold>. Alternatively, a note may be made in the comments accompanying the question item.

7. Making changes to a survey module

All elements entered into the QDDT can be modified. Changes to elements may be made a) during the question development process for a single survey round, for example in response to feedback from pre-testing b) between one survey round and another, for example to correct errors identified or to update a code-frame.

A key advantage of using the QDDT to document the questionnaire design and development process is that it incorporates versioning. Versioning is useful to track the evolution and provenance of different survey elements and to differentiate important modifications from those that are not so important. The QDDT employs business versioning which puts the user in control of when to assign a new version number to an element. Every time an element is modified within the QDDT the user needs to consider versioning.

The general principles of versioning in the QDDT are outlined in Section 2.2. This section provides more details on how to realise versioning within the tool and the versioning conventions that will be employed by the ESS.

7.1 Modify elements

Surveys, studies modules and concepts (i.e. elements accessible via the QDDT home screen) may be modified in one of two ways within the QDDT:

1) By locating the desired element in the middle panel of the QDDT and clicking on the icon. This enables you to edit the element's name and description directly.

Or:

2) By modifying their contents by adding or removing lower level elements. For example, a module may be modified by adding new (sub)-concepts or dropping existing concepts.

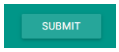
Versioning needs to be considered under both scenarios. A new version must be assigned if the element is modified directly (a will appear next to the element if this is not done to signal a "work in progress"). The user has some discretion over whether to assign a new version to a higher level element if there is a change to a lower level element (a will appear next to the element to indicate such a change) - see Section 7.2.3.

Reusable elements that is, **question items, response domains, categories, sets of missing values and question constructs** can only be modified through direct editing:

Search for the element to be modified in the relevant element listing

Click on the element in the listing to bring up details of the element.

You can now edit any of the information that makes up the selected element. In the case of question item, for example, you may want to edit the question text (simply type in the question text box), remove the existing response domain and replace with another (see Section 6.3.1), or add a set of missing values (see Section 6.3.2).

Before clicking 

to save changes made to question items, response domains etc. a decision on how to version the changes made must be made.

To exit an element at any time without making any changes, click the  back button or click on the  icon to close the element window.

7.2 Version modified elements

7.2.1 Save as version: Question items, response domains, missing domains and question constructs

The procedure for saving a new version of an element is the same regardless of the element in question. You will be prompted to do this every time you enter an element to edit it.

Step 1) Enter the element window as if you wish to edit its contents (see Section 7.1 above)

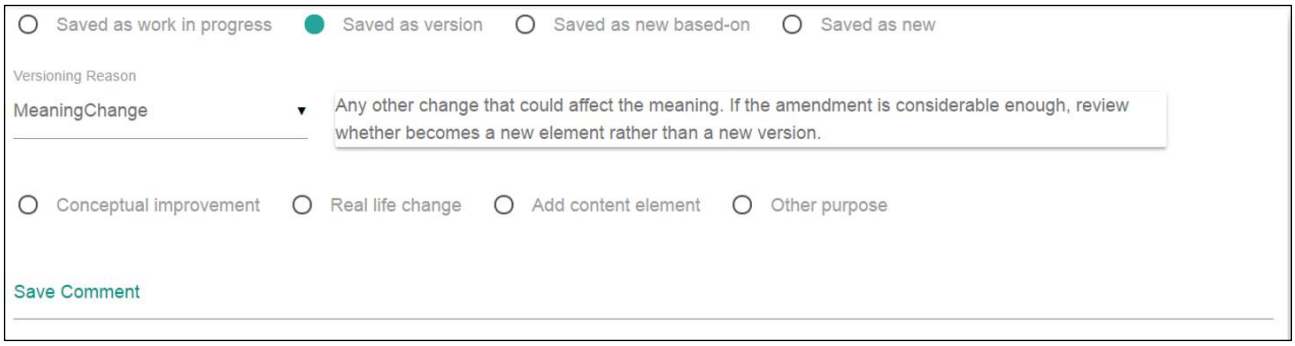
Step 2) Scroll down in the element window until you find the "Rationale for change" box. Scrolling over this box will reveal several options:

Step 3) If you opt for "Saved as version", the QDDT will prompt you to specify a rationale for the version change.

The first choice is to specify whether the change constitutes correction of a typo (or other orthographical or administrative change that has no effect on the meaning of the element) or whether it constitutes a change in meaning.

If "TypoOrNoMeaningChange" is selected, the QDDT automatically designates the element as a new minor version. The element's version number will change from 1.0 to 1.1.

If “MeaningChange” is selected, the QDDT automatically designates the element as a new major version. The element’s version number will change from 1.0 to 2.0. A further rationale for the new major version must then be selected.

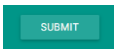


The options are:

Code	Term	Definition
ConceptualImprovement	Conceptual improvement	The change represents an amendment in wording in order to better cover the intended meaning, for example when a concept description wording is changed with aims of corresponding better with the intended concept
RealLifeChange	Real life change	The change corresponds to a real life change
AddContentElement	Add content element	A content element is added to the element inline or by reference, for example a name added to a question item etc.
OtherPurpose	Other purpose	The change is made for other purposes not found in the list

NOTE

During the questionnaire development process, “conceptual improvement” is likely to be the most commonly used rationale for version changes. For version changes implemented between rounds “real life change” may become more important. This code would be used if a code frame is updated, for example to take into account the emergence of new political parties or changes in the legal status of same-sex marriage.

Step 4) Whichever versioning option(s) is selected, before you click 

you will be asked to provide a written comment in the “Rationale for change” box. This should be kept short but be as informative as possible.

As well as “Saved as version, the QDDT gives the user the following options:

Saved as work in progress**:** Save the element with the current version number. A next to an element indicates that it has been saved as a "work in progress" and contains un-versioned changes.

NOTE

"Saved as work in progress" should only be used whilst an item is in active discussion with internal colleagues, for example, within ESS HQ. Before an element is shared with other colleagues, for example the Question Design Team, or before "Publication" (see Section 8), any lower level element that has changed must be "Saved as version" and a new business version assigned.

This is to ensure that the QDDT has a record of any changes (however small) in an element and that the user can select between different versions as appropriate.

Saved as new based-on: Save as a new element but establish a link with the original element. When viewing an element you can access information on the "Based on object", that is the original element on which the current element was based.

NOTE

The "Saved as new based-on" option should be used, for example, with question items that form part of a split ballot experiment (including MTMM experiments). One version of the question item should be created as a new element and then variants of the item "saved as new based-on" with the rationale

NOTE

This option can also provide a useful shortcut if, for example, items in the same question battery vary by just a few words. Rather than having to create a new question from scratch, the user can modify an existing item in the battery, assign a new question name and "save as new". Remember to assign the new element a unique name though.

Saved as new: If the changes made to an element are considered sufficiently major to change its underlying meaning or intent, the user may decide to save the changes as a completely new element rather than as a version of an existing element. If this is done, the element should be saved with a new name.

Creating a new version of an element will only update it in the element listing. If the edited element is in use, for example a question item attached to a concept or a response domain attached to a question item then the user must make sure to remove the previous version of the element and (re)attach the new version.

NOTE

For example, if the decision is taken to edit the response domain for a question item the workflow would be as follows:

1) Edit the response domain in question and save as a new version (see Section 7)

2) Remove the previous version of the response domain from the question item(s) currently using it (see Section 6.3.1).

3) Attach the new version of the response domain to the affected question item(s) (see Section 6.3.1)

4) Save the revised question item (complete with new response domain) as a new version (se Section 7).

5) Remove the old version of the modified question item from the concept to which it is attached (see Section 5.2)

6) Attach the modified question item to the concept in its place (see Section 5.2)

7) Consider saving a new version of the affected concept (see Section 7.2.3)

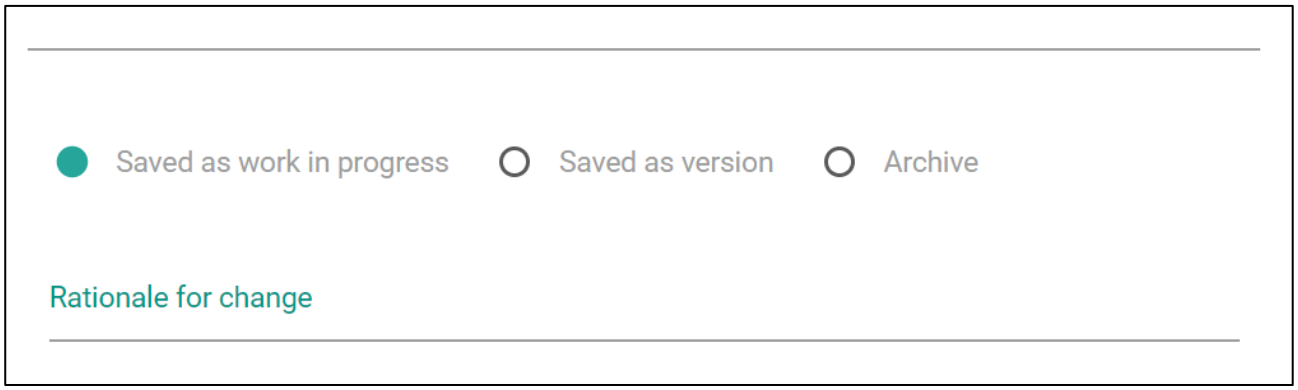
This must be done separately for each occurrence of an element, for example for each question item in which a changed response domain is used.

The question item screen indicates where a question item is in use (unfortunately the same functionality is not currently available for response domains but could potentially be added).

7.2.2 Save as version: Survey, study, module, concept

The process for saving changes to a survey, study, module or concept is similar to that described above, except that the versioning options are slightly different. The user will be asked to make a versioning choice every time a direct edit to one of these elements is made, that is the name or description is edited.

The user can also enter the element at any time to assign a new business version, for example in preparation for publication when there have been changes in lower level elements (see Section 7.2.3 below).



"Saved as work in progress" and "Saved as version" operate as described in Section 7.2.1 above.

Archive is used to save the final version of an element after which no further changes are possible. This options should only be used once a survey is in the field and there is no further possibility of amendments (within the current round at least). A blue ! next to an element indicates when it has been archived.

NOTE

Question Design Teams may want to make direct edits to concepts. If this is the case, as described in preceding sections, they should select "saved as work in progress". The module editor at ESS HQ should go through and check whether any concepts require saving as a new business version (by looking for the yellow !) before a modue is published.

7.2.2 Save as version: Changes to lower level elements to maintain the hierarchy

In addition to versioning elements when they have been edited directly, users should also consider assigning new business versions to elements such as concepts or modules if there have been changes in the associated content, for example sub-concepts associated with concepts or located within modules. This is important to ensure that there is a stable reference version available for publication and to document the survey's progress through key questionnaire development milestones.

The user will be alerted when there has been a change to lower level content by the presence of a ! next to the element.

Assigning a new version or concept need only happen when all relevant changes to lower level elements have been made and the user is ready to publish i.e. share a new version of the concept/module for review or to mark a milestone in the questionnaire development process (e.g. pre-testing).

The presence of ! need not always trigger a version change in the higher level element. For example, the underlying theoretical concepts and their definition are considered to be independent of precisely how they are operationalized through specific question items. That means that changes in a question item would not necessarily result in a new version of the associated concept.

NOTE

The following guidelines should be followed when deciding when and how to version modules or concepts

- A module should be assigned a new business version prior to publication if there have been any changes to the module's content (as indicated by the green !).
- A version should be assigned a new business version if there is any direct change to the concept name or description.
- A new business version of a concept is required when a) sub-concepts are added or dropped b) a sub-concept is assigned a new version.
- A new version of a (sub) concept is not necessarily triggered by changes in associated question items i.e. precisely how the concept is operationalised in a survey. However, if the way in which a concept is to be measured changes significantly (for example with the addition of extra questions or changed routing) then a new version of the concept should be considered.

7.2.4 Versioning checklist

The following should be borne in mind with respect to versioning in the QDDT. ESS users should:

- Ensure question items, response domains, missing domains or question constructs are "saved as new version" if any changes have been made. This should be done prior to publication and/or before sharing the changed element with colleagues. Save as a new minor version if the change is orthographical and/or does not affect the meaning. Otherwise, save as a new major version.
- Provide a brief but informative rationale when saving a new version of an element.
- Ensure concepts or modules are "saved as new version" if changes are made to the element name or description (Question Design Teams can designate elements as "saved work in progress" and delegate business versioning to ESS HQ).
- Ensure all elements designated as "work in progress" by the yellow ! are assigned a new business version prior to publication.
- Ensure a module is assigned a new business version prior to publication if there have been any changes to the module's content (as indicated by the green !).
- Consider carefully whether changes to associated content (sub-concepts and /or question items should trigger a version change in a concept and ensure that, where necessary, this is done prior to publication (see guidelines in Section 7.2.3 above).
- Archive content (concepts, modules, studies) only when the mainstage questionnaire is in the field.

Set out as it is in this user manual, the versioning process can appear very long winded. However, it should be relatively quick to implement and, in essence, is not that different from the steps required of the current paper template.

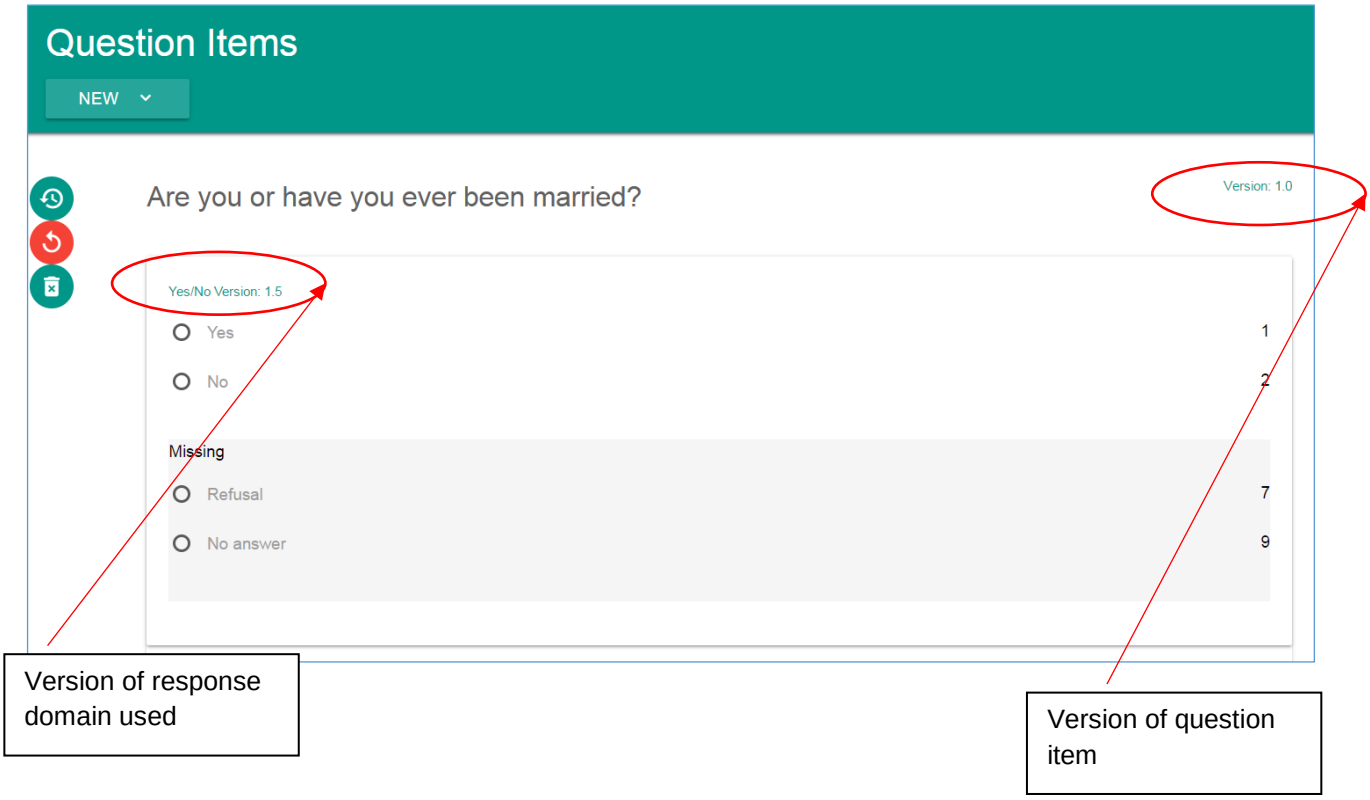
Some examples of the workflow involved in documenting changes to module elements, using real-life ESS examples, are provided in a separate document *"Versioning and publication example from ESS Round 9.doc".*

7.3 Keep track of module changes

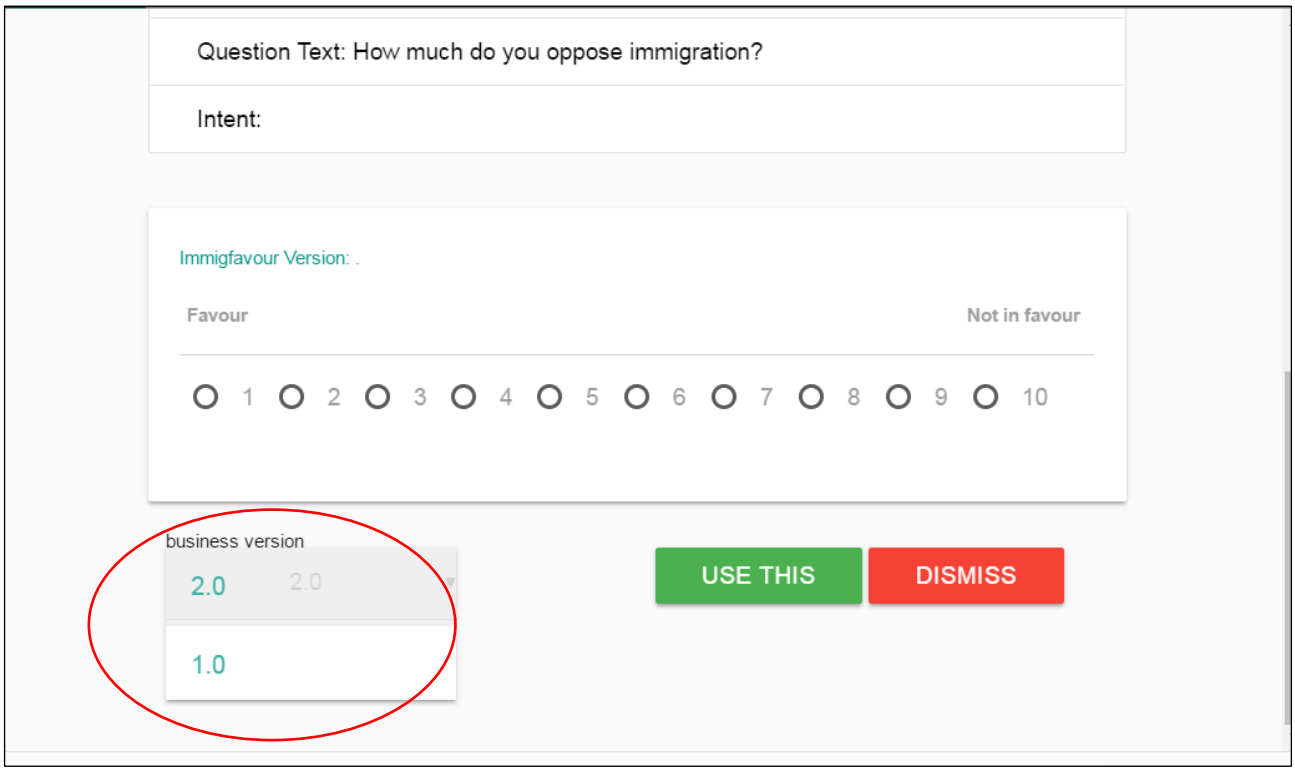
The QDDT maintains a record of all of the changes made to elements stored within it. There are several ways users can employ the QDDT to keep track of how a survey module evolves over the questionnaire development period or may have been modified between studies.

7.3.1 Element version numbers

When an element is displayed within the QDDT it is shown with the element version number, enabling the user to keep track of which elements are in use where within the QDDT. Individual elements have their own version number so, for example, v1.0 of a particular response domain may be attached to v2.0 of a question item (or vice versa).



When selecting a question item to attach to a concept (or a response domain to attach to a question item), you can select any version of that element to attach. By default the QDDT always selects the latest version but you can change this. This feature also allows you to preview different versions of the element before making a selection.



7.3.2 Version history

The version history of an element can be viewed by clicking on the icon. The version history appears in the bottom half of the screen underneath the element.

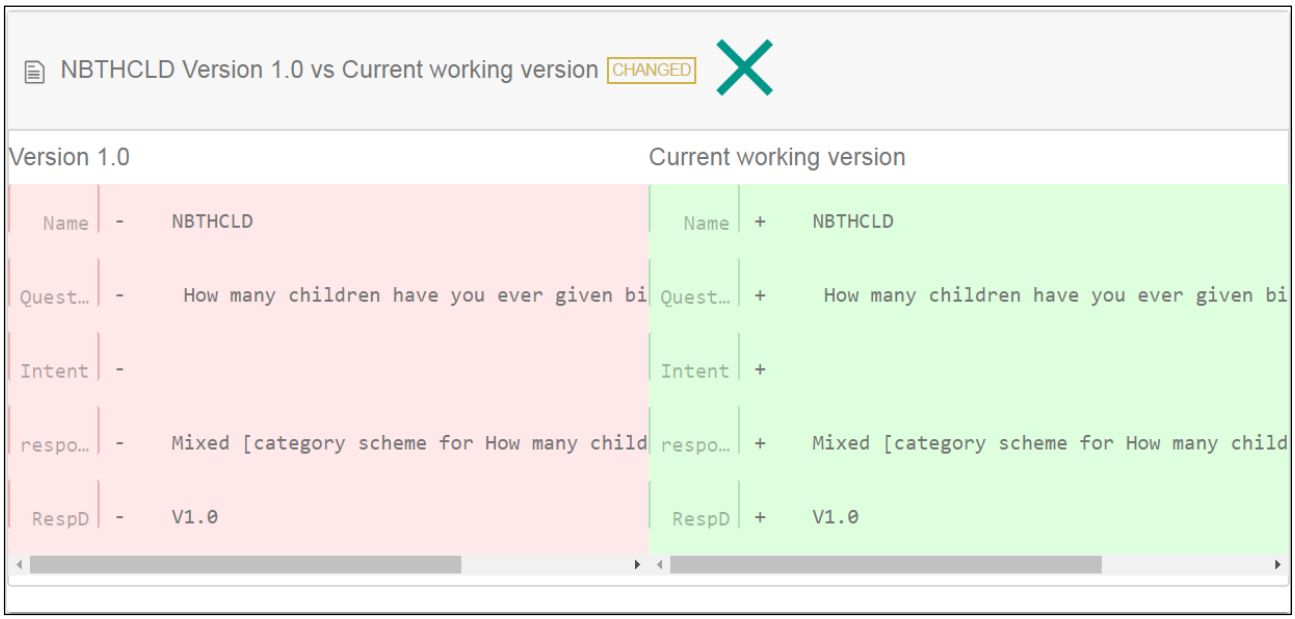
In the example below, the question “How many children have you ever given birth to/fathered?” was changed to “How many children have you ever given birth to?” and saved as a new version.

You can view when each version was created, the rationale for any changes and any comments made about the reasons for change.

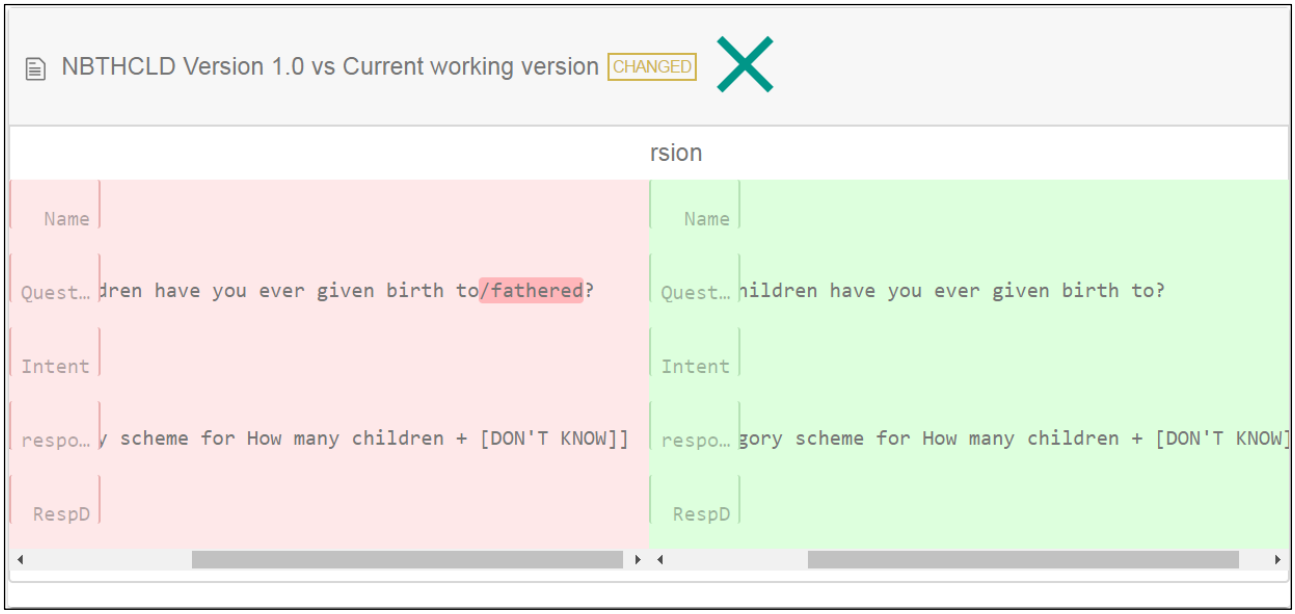
#	Version	Compare	Timestamp	Reason	modifiedBy	Comment
5176	1.0		04 06 2017 17:15	CREATED	admin	
5193	2.0		05 06 2017 09:23	CONCEPTUAL	admin	Removed "fathered" - question to be asked just of female respondents

0

Clicking on the compare symbol next to any version of the element allows you to compare the selected version against the current working version of the element saved in the QDDT.



The layout is not very user friendly but you can scroll to review the full question wording and identify any changes.



This function is likely to be of most help when used with question items and response domains to compare wording changes. It won't indicate whether and how the content of concepts/modules have changed (publication should be used for this – see below).

This function may be particularly useful for items saved as "work in progress" as it allows you to compare to the current working version with the last saved version.

7.3.3 Publication

The best way to review the progress of a questionnaire module is to use the publication feature. Publication allows the user to select QDDT content (a whole module, selected concepts, individual question

items) and “publish” it for review. Published versions of elements can be retrieved and viewed throughout the development process and compared against the latest versions of the same elements stored within the QDDT.

Publication will be covered in more detail in the next section.

8. Publication

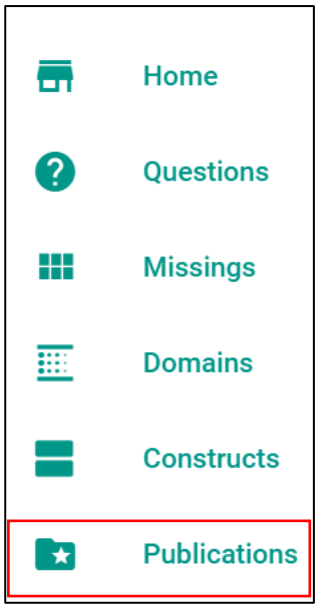
"Publication" provides a way for users to document key milestones in the questionnaire development process. A specific business version of a module (or concept or question item) can be "published" within the QDT. The published version can then be accessed from within the QDDT. Maintaining a record of module development through publication is particularly important as previous versions of modules cannot be accessed in the QDDT; only the current version is shown.

Publication also provides a way to retain a record of the specific module content that was shared with other stakeholders at a given point in time or used for a specific purpose, for example to indicate which question items were included in a particular round of pre-testing.

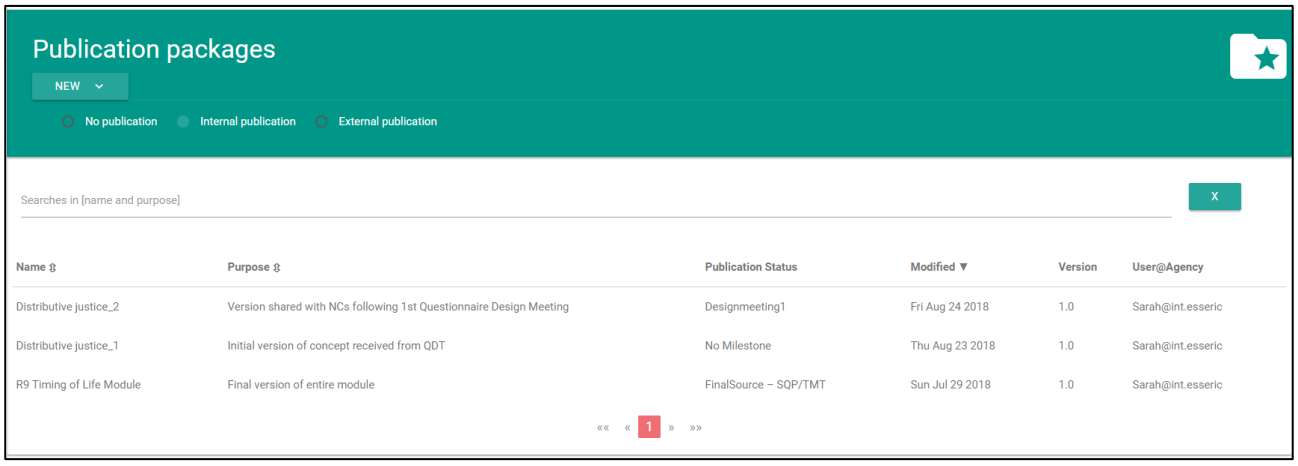
Publication relies on content having been appropriately versioned so that there is a stable reference point for the publication (see Section 7 above).

8.1 Accessing existing publications

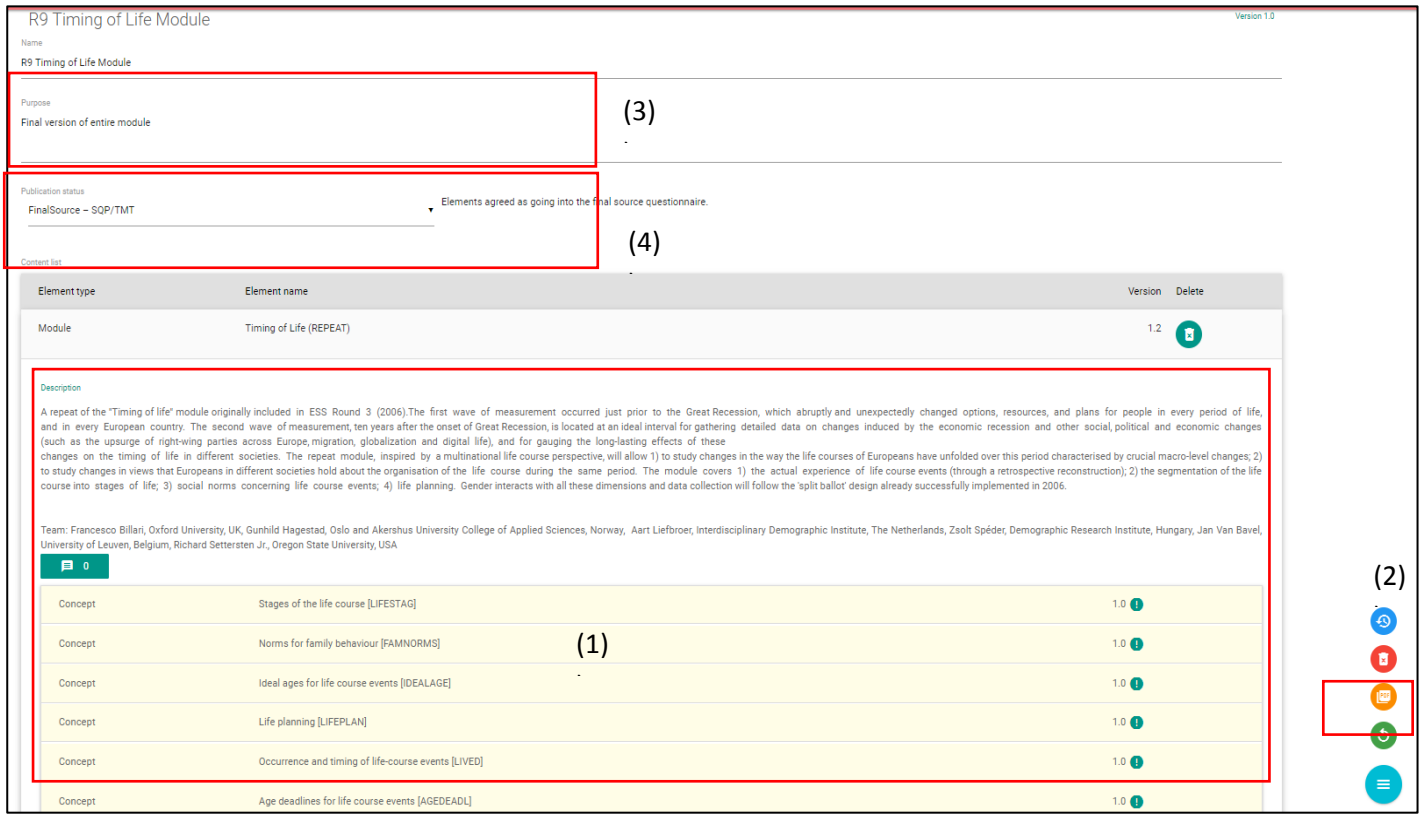
The publication feature is accessed via the left hand menu.



A list of all available publication packages is available, separated into "no publication", "internal publication" and "external publication" (see Section 8.2 below). ESS publications for the time being will mostly be under "internal publication".



The user can select a publication package to view, either in the QDDT **(1)** or by downloading it as a PDF **(2).** Alongside the content, the user can see a description of the purpose of the publication **(3)** and the questionnaire development milestone **(4)** to which it corresponds.



8.2 Creating a new publication

To create a new publication, click "new" and then select the relevant type of publication **(1):**

No publication: Used to share content among internal stakeholders more informally, i.e. outside of key development milestones.

Internal publication: Accessible to editors, conceptual editors and viewers i.e. internal stakeholders involved in the questionnaire design process.

External publication: Accessible to all QDDT users including “external viewers”. Should be used only once a module is finalised and ready to be shared with the public.

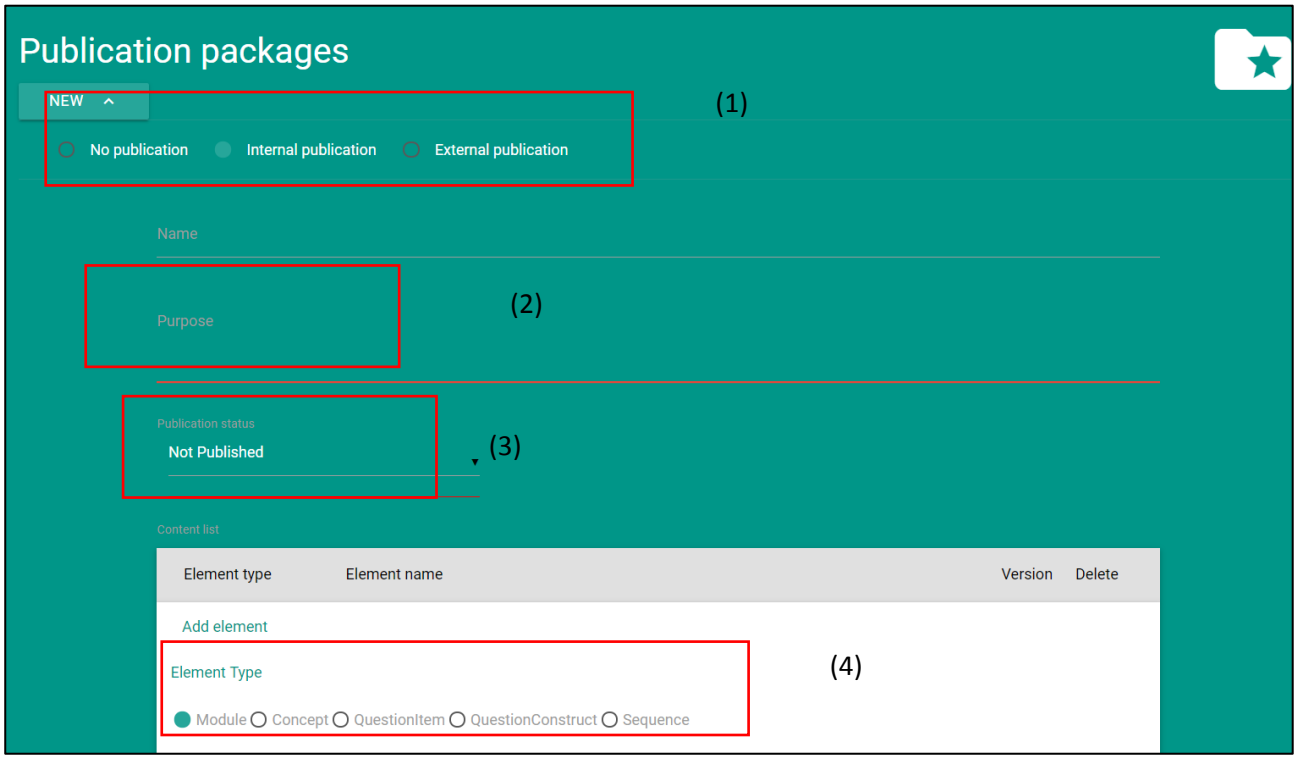
Next, enter a purpose for the publication **(2)** giving some background information on what the publication package contains and the stage of the development process to which it corresponds for e.g. “full module for pilot” or “questions for cognitive pre-testing”.

Attach a milestone to the publication package **(3).** The current milestones available for internal publication (and which may benefit from revision) are:

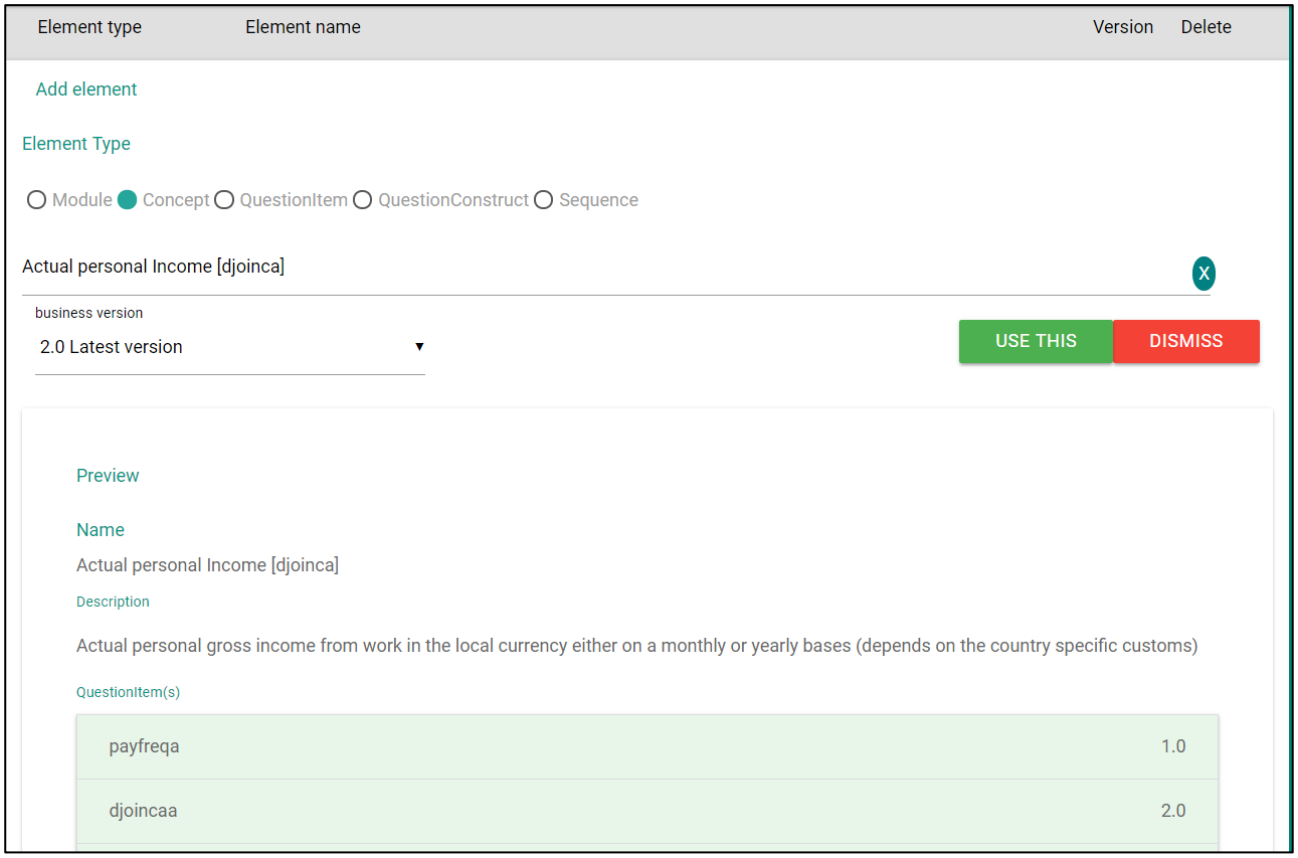
Designmeeting1 (with the external Questionnaire Design Team)
Designmeeting2
Designmeetng3
Earlytesting
Postearlytesting
Pilot
PostPilot
Final Source
No milestone

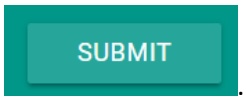
If the appropriate milestone is not given in the drop down list, choose “no milestone” and enter more information under “purpose”.

Select the type of content to be published **(4)**. It is possible more than one type of content in the same package, for example a full rotating module plus a concept from the core questionnaire.



As when selecting other elements within the QDDT, the user selects the elements from a drop down list of pre-defined elements, can select a particular business version of the element, preview the element and then opt to “use this” or “dismiss” the element.



Once all elements required for the publication package have been selected, the user must remember to press 

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By default, the QDDT includes “comments” in the publication package. The user has the option to exclude comments from a specific publication package (for example, prior to sharing with an externl stakeholder). See Section 3.3 for more on how to do this.

NOTE

Modules should be published as “internal publications” on (at least) the following key milestones:

- First version of module, prior to first QDT meeting
- Module shared with NCs /SAB
- Early pre-testing
- Pilot
- Final mainstage questionnaire

It may also be appropriate to mark other milestones in the development period.

It is good practice to download the PDF of the publication package as an additional record.

The QDDT is not yet fully operational for external users so “external publication” is not required.
As all of the main stakeholders involved in ESS questionnaire design have access to the QDDT, publication is not required to share content outside of key milestones and so “no publication” should not need to be used.

Appendix: Entering content in the Questionnaire Design and Development Tool: ESS examples

The following document provides some examples of different types of question items and other ESS questionnaire content and offers suggestions for how to document them in the QDDT.

It should be noted that version 1 of the QDDT does not yet contain all of the control constructs, for example sequence, necessary to document a survey instrument completely. This means that some of the suggestions below represent compromises rather than the ideal approach to documenting a survey instrument using DDI. For example, some content which ideally should be entered as another element type, for example "statement", and combined with question items to form sequences, will need, for now, to be entered as "question items". The solutions below mean that the QDDT can already be used to document module development.

One of the key features of DDI, and therefore the QDDT, is that it is intended that content will be reusable. Question items should be reusable from one instrument to another. Question items are developed into question constructs and put together into sequences specific to an instrument. Some of the ESS question wording does not lend itself to being reused, for example because mode-specific instructions regarding showcards are built into the question. The experience of working with the QDDT – as well as the move towards fielding ESS items online, for example through the CRONOS web panel – should, in the longer term, lead us to focus on designing questions for future rounds that are more "reusable". For now, when documenting ESS question items, question items should be documented as they were (are intended to be) fielded.

1. Routing instructions

Routing instructions i.e. to which group(s) of respondents an element should be routed, are recorded as a control construct in DDI and are part of producing sequences for the final instrument. This feature has not yet been implemented in the QDDT. Even if sequences had been implemented, it is arguably useful to see information on the (sub)-population for whom a question is intended alongside the individual question item.

Solution:

A "Universe" box has been added to question construct to record the universe or sub-population of whom the question should be asked i.e. ASK IF RESPONDENT IS IN PAID WORK.

Information on the intended universe can also be included in the information available for question items using the "question intent" box. The routing instruction should be phrased in terms of the intended sub-population (e.g. respondents in paid work) rather than with reference to specific question numbers.

2. Introductory statements

DDI allows statements to be entered as separate elements when constructing a survey instrument. However, this feature is not currently implemented in the QDDT.

EXAMPLE

I am now going to ask you about the effect of social benefits and services on different areas of life in [country]. By social benefits and services we are thinking about things like health care, pensions and social security[91] [92].

CARD 49 Using this card, please tell me to what extent you agree or disagree that social benefits and services in [country]... **READ OUT**...

		Agree strongly	Agree	Neither agree nor disagree	Disagree	Disagree strongly	(Refusal)	(Don't know)
E9	...place too great a strain on the economy?	1	2	3	4	5	7	8
E10	...prevent widespread poverty?	1	2	3	4	5	7	8

Solution

Introductory text such as "I am now going to….. social security" should be entered in the QDDT as a question item without a response domain attached.

The "question intent" box should mark the item as "Statement/Introduction".

3. Interviewer instructions

The question construct feature within the QDDT allows us to input instructions (for the interviewer or the respondent) before or after a question item. This includes references to showcards.

Occasionally question instructions may appear in the middle of a question item as in the example below. It is not possible to insert instructions in the middle of a question item in the QDDT.

Example

E7 **CARD 46** Please think about the last time you were drinking alcohol on a Monday, a Tuesday, a Wednesday or a Thursday.
INTERVIEWER PAUSE TO ALLOW RESPONDENT TO CONSIDER THE SHOWCARD.
How many of each of the following drinks did you have on that day?
Use this card to guide your answer.

INTERVIEWER PROBE: any other drinks?
INTERVIEWER: If respondent gives an answer that is not on the card, please refer to the box below:

INTERVIEWER RECORD NUMBER OF EACH TYPE OF DRINK:

(Never drink alcohol Monday to Thursday)	555
(Don't know)	888

Solution

Enter the instruction after the relevant question item. Add a "Comment" under the construct to note that when formatting the final instrument one or more of the instructions should be inserted part way through the question text.

4. Showcard instructions

Showcard references such as "CARD X" are an instruction and should be included as part of the question construct. However, in some ESS questions phrases such as "using this card… " are incorporated into the question text.

EXAMPLE:

B38 **CARD 15** Now, using this card, to what extent do you think [country] should[29] allow people of the same race or ethnic group as most [country]'s people to come and live here[30]?

Allow many to come and live here	1
Allow some	2
Allow a few	3
Allow none	4
(Refusal)	7
(Don't know)	8

Solution:

For future rounds we will try to avoid this construction and work on making questions "mode neutral".

When recording items from past rounds, question items should be recorded in the QDDT as per the source questionnaire that is, including phrases such as "using this card…" if this was part of the original source question.

5. Question batteries

The ESS frequently asks batteries of items. DDI relies on question grids and/or sequences to construct batteries. However, these features are not currently available within the QDDT. The compromise is to enter the different parts of a battery as separate question items and to use the question intent box to note this.

Solution

The introduction to a battery that is, "The highlighted box at the top….bottom of this card" or "How important do you think….it be for them to" should be entered as a separate question item without a response domain. Any instructions such as "CARD X" or " … READ OUT…" can be added to the associated question construct. The question intent box should mark the item as an "Introduction to question battery"

Each of the items making up the battery should be recorded as separate question items. They should be recorded as fielded (or intended to be fielded) in the source questionnaire that is, "And how about natural gas?" or "…have good educational qualifications?" rather than writing out the question in full.

The question intent for battery items should mark the item as "Item in a battery. See [battery intro] for introduction to battery" The question intent does not need to record where in the battery (1/2, 5/6 etc.) the item appears. This will be recorded as part of the question construct when question numbers are assigned.

When a battery item is attached to a concept, it should always be attached together with the relevant battery introduction so that the question can be understood. This may mean that the same introduction is attached to multiple (sub) concepts.

EXAMPLE 1

CARD 35 The highlighted box at the top of this card shows a number of energy sources that can be used to generate electricity[68]. Please take a moment to look over them.
INTERVIEWER: PAUSE TO ALLOW RESPONDENT TO READ THE LIST.
How much of the electricity used in [country] should be generated from each energy source? Please choose your answer from the options at the bottom of this card.

		A very large amount[69]	A large amount	A medium amount	A small amount	None at all	(I have not heard of this energy source before)	(Refu-sal)	(Don't know)
D4	First, how much of the electricity used in [country] should be generated from coal? **INTERVIEWER**: if respondent queries which type of coal, please read out: 'Coal refers to all types of coal that can be used for generating electricity, including black coal[70] and brown coal[71].'	01	02	03	04	05	55	77	88
D5	And how about natural gas?	01	02	03	04	05	55	77	88
D6	And how about hydroelectric power generated by flowing water from rivers, dams and seas?	01	02	03	04	05	55	77	88
D7	How much of the electricity used in [country] should be generated by nuclear power?	01	02	03	04	05	55	77	88

EXAMPLE 2

CARD 26[48] How important do you think each of these things should be in deciding whether someone born, brought up and living outside [country] should be able to come and live here? Firstly, how important should it be for them to… **READ OUT**…

		Not at all important										**Extremely important**	**(Refu-sal)**	**(Don't know)**
C33	…have good educational qualifications?	00	01	02	03	04	05	06	07	08	09	10	77	88
C34	…come from a Christian[49] background?	00	01	02	03	04	05	06	07	08	09	10	77	88
C35	...have work skills that [country] needs?	00	01	02	03	04	05	06	07	08	09	10	77	88

6. Vignettes and other split ballots that change the reference group

In the Round 3 and Round 9 timing of life module (see R3 Questionnaire item D17 onwards) we split the sample and asked one half of the sample a series of questions about women and one half of the sample the same questions but about men. It is relatively common to include vignettes in modules where respondents are asked to consider certain scenarios/reference groups. The sample is split so that each half, quarter etc. of the sample is asked the scenario in relation to different reference groups.

Solution

The vignette design can either be included as part of the concept description or as a "comment" under the relevant concept. TBA: This is a questionnaire design decision not related to the QDDT).

If the vignettes/split ballot wording requires an introduction, this can be included as a question item without a response domain as with any battery. The question intent box should mark the item as "Statement/Introduction"

A source version of the vignette/split ballot wording should be entered as a question item (complete with appropriate response domain) using the same notation as the justice and fairness example above that is, with the different options listed side by side in [ ]. "Variant of source" alternatives which select different reference groups/combinations - and to which respondents are routed accordingly - can then be created when producing the fieldwork instrument.

Scenario:

Imagine the following situation: The government of your country has launched a special programme to support unemployed persons who wish to enrol in further education. Each person can apply for one-time payment amounting to a maximum of [6 times the average wage]. As there are more applicants than disposable funds, decisions have to assess individual cases. In the following you find descriptions of four applicants and you have to decide how much of the funding they will receive.

	Level			Theoretical Concepts
Dimension 1	applies for a course that focuses on specific skills required on the labour market	applies for a course that focuses on the development of personal competence	2	Intergenerational Justice: Welfare spending as investments for the future or to subsidize consumption in the present
Dimension 2	Female	Male	2	Scope of Justice: Who can make claims?
Dimension 3	early 20s	late 50s	2	Intergenerational Justice/Scope of Justice: Which generation has the right to be subsidized/can make claims?
Dimension 4	naturalised migrant	native	2	Scope of Justice: Who can make claims?
Dimension 5	current public revenue	a long-term public loan	2	Intergenerational Justice: Which generation bears the costs of welfare spending

7. Question wording experiments

The ESS sometimes includes alternative versions of an item to test different response domains or other design features. This is done especially during pre-testing and also in the main survey as part of the MTMM experiments.

Solution

When alternative versions of the same question are tested alongside one another during pre-testing, they should be entered as different versions of the same question item. It is possible to select which version to attach to a concept and/or to develop the alternative versions as two separate question constructs.

For the MTMM experiments, one version should be designated as the source version and the alternative versions should be "Saved as new based-on" and designated as "VariantofSource".

8. Response domains using letters to protect confidentiality

There are some ESS questions where the question visible to interviewers has a response domain consisting only of a series of letters. The showcard given to respondents has the letters plus associated answer categories. When answering, the respondent gives the interviewer the letter corresponding to the appropriate response category. This is so that they do not need to report sensitive information (for example income, health conditions) directly to the interviewer.

EXAMPLE

E28 **CARD 54** Which of the health problems on this card have you had or experienced in the last 12 months, that is since [**MONTH, YEAR**]? Just tell me which letters apply to you. [2]
INTERVIEWER: Refer to the same month as the interview but of the previous year. For example, if the interview takes place in September 2014, use [September 2013].
PROBE: Which others?
CODE ALL THAT APPLY

Z	01	
F	02	
T	03	
K	04	**ASK E29**
H	05	
Y	06	
Q	07	

[2] The actual health problems should not appear in the questionnaire given to interviewers. Interviewers should only see the letters and corresponding numeric code.

	E	08	
	L	09	
	B	10	
	M	11	
(None of these)	-	55	**GO TO E30**
(Don't know)	-	88	

Using the questionnaire response domain consisting only of a series of letters is not informative during the development process. However, in order to create the final question construct – and build the survey instrument – the question needs to be recorded as it appears in the source questionnaire.

Solution:

Create a question item with a response domain which consists of letters + categories and attach this to the relevant concept in the module.

When ready to construct an instrument, create a basedon "variant of source" version of the question item using a letters only response domain to be used in the question construct along with the relevant showcard.

9. Questions with a response domain that differs from the showcard

There are some ESS questions which use showcards that contain information different from or in addition to the response domain.

EXAMPLE

E30 **CARD 55** Do you have or have you ever had any of the health problems listed on this card?
IF YES, is that currently or previously?

Yes, currently	1
Yes, previously	2
No, never	3
(Don't know)	8

Solution:

Whilst the item is in development, use the medical conditions from the showcard as the response domain.

Create a basedon "variant of source" version of the question item using "Yes, currently/Yes, previously/No" as the response domain. This can be used to produce the question construct along with the relevant showcard.

NOTE: The follow up part of the question that is, “IF YES: is that currently or previously?” should be included as part of the question item. A “variant of source” can be created if the question needs to be adapted for another mode.

10. Response domains including an “Other (write in)” option

Occasionally ESS includes questions with a code domain which includes an “Other (write in)” option. DDI allows for mixed response domains to be created which could incorporate a code domain plus a text domain for the “Other (write in)” response. However, this feature has not yet been implemented.

EXAMPLE

C19 On what grounds is your group discriminated against?
PROBE: ‘What other grounds?’
CODE ALL THAT APPLY

Colour or race	01
Nationality	02
Religion	03
Language	04
Ethnic group	05
Age	06
Gender	07
Sexuality	08
Disability	09
Other (**WRITE IN**)_____	10
(Refusal)	77
(Don’t know)	88

Solution

For documenting module development this lack of “mixed domains” is not a problem. The question can be documented sufficiently using a code domain which includes “Other (write in)” as one of the codes.

11. Questions with country-specific showcards/code frames

Many ESS questions, particularly in the core questionnaire, make use of country-specific code frames.

EXAMPLE

F61[89] **CARD 77** How would you describe your ancestry[90]? Please use this card to choose up to two ancestries that best apply to you.
INTERVIEWER: code maximum of two ancestries in total.
If more than two are mentioned, ask respondent to select two.
If respondent is unable to do this, code first two ancestries mentioned.
INTERVIEWER PROBE ONCE: Which other?

	First ancestry mentioned (CODE ONE ONLY)	**Second ancestry mentioned (CODE ONE ONLY)**
British	01	01
English	02	02
Northern Irish	03	03
Scottish	04	04
Welsh	05	05
Bangladeshi	06	06
Chinese	07	07
Gypsy/Roma	08	08
Indian	09	09
Irish	10	10
Jamaican	11	11
Nigerian	12	12
Pakistani	13	13
Polish	14	14
Somali	15	15
Other (**WRITE IN MAXIMUM OF TWO ANCESTRIES IN TOTAL**)	_____	_____
(Refused)	777777	777777
(Don't know)	888888	888888
(No second ancestry)	-	555555

NOTE ON ADMINISTRATION OF F61: Country specific question (UK example shown above for illustrative purposes). Translation of the source question wording should be carried out as normal in all countries. Country specific answer categories and showcards will be developed in consultation with ESS ERIC HQ (ess@city.ac.uk). Responses to be recoded into the 'European Standard Classification of Cultural and Ethnic Groups' available on the ESS7 Intranet.

Solution

Country-specific items can be entered in the QDDT as they are in the source questionnaire that is, using the official ESS code frame or the UK code frame as an exemplar.

The fact that the item is fielded using a country-specific code frame should be noted in question intent. The more detailed "Notes on administration" will not be documented in the QDDT (though the "comment" function can be used if a record is required during questionnaire development). These notes can be added to the source questionnaire and/or the project instructions outside of the tool.