

# SQP USERS' MANUAL

2015



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The Survey Quality Predictor (SQP) software is used to predict the measurement quality of survey questions. The SQP quality prediction is based on an analysis of the relationship between the quality of questions obtained from past Multitrait - Multimethod (MTMM) experiments<sup>1</sup> and their characteristics<sup>2</sup>. SQP is online software that allows researchers to add a question, code its characteristics for more than 20 countries<sup>3</sup>, and obtain a quality prediction. For more detailed information regarding the characteristics of the questions, go to Saris and Gallhofer (2014)<sup>4</sup> and to the SQP Coding instructions (2015)<sup>5</sup>.

SQP consists of an open database of survey questions, quality predictions and MTMM estimates. SQP users can be participant in the development of this database, as they are able to add survey questions, see other users' questions, create their own quality predictions and also see other users' predictions. Because SQP is open software, it is strongly recommended using the SQP Demo for testing the software and learning the coding procedure of the characteristics. The Demo interface is easily accessible from the login page (see [Screen 1](#)).

*Screen 1: SQP login page*

**SQP** Survey Quality Predictor 2.1

SQP 2.1 is a survey quality prediction system for questions used in survey research.

**SQP Demo**

SQP Demo is a trial version with all functionalities of SQP. However, users should be aware that all studies, questions and codings will be deleted periodically. For a complete view of the database you should access SQP through your personal account.

[Demo Login](#)

**Login**

Please login to access the SQP software.

\* Username

\* Password

[Lost your password?](#)

[Login](#)

**Register for a new account**

Registration will allow users to access the online SQP software. By creating an SQP account you will be able to:

- Enter your own studies and questions in the open database
- Predict the quality of the questions in the database
- Share your results with other users
- Browse and learn from the information provided by other users

[Register Now >>](#)

<sup>1</sup> MTMM experiments are conducted in order to determine the quality of survey questions.

<sup>2</sup> Formal and linguistic characteristics such as: domain, social desirability, balance of the request, response type, presence of neutral category, respondent instructions, number of nouns in the request, use of showcard, presence of an interviewer, etc.

<sup>3</sup> The current version of SQP is able to provide predictions for the following countries in combination with any language: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Ireland, Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Spain, Switzerland, Sweden, Ukraine and United States. The effect of the language is captured by the coding of the linguistic characteristics of the questions. However, users should take into account that the effect of the linguistic characteristics are measured by the use of the official languages in those countries.

<sup>4</sup> Saris, W. E. and Gallhofer, I. N. (2014). Design, evaluation and analysis of questionnaires for survey research. Second edition, Hoboken, Wiley.

<sup>5</sup> Survey Quality Predictor (2015). SQP Coding Instructions. Barcelona, Universitat Pompeu Fabra.

## 1. Using the SQP Demo

The SQP Demo provides users with the complete set of features in SQP. Thus, Demo users are able to create new questions, check existing questions, characteristics' codes and quality predictions, and code the characteristics of their own or existing questions to obtain their own quality predictions. The only two differences between the SQP Demo and SQP are:

- In the SQP Demo all created studies<sup>6</sup>, questions and characteristics' codes will be deleted periodically.
- The complete database of questions cannot be found in the SQP Demo. This is only available for registered SQP users.

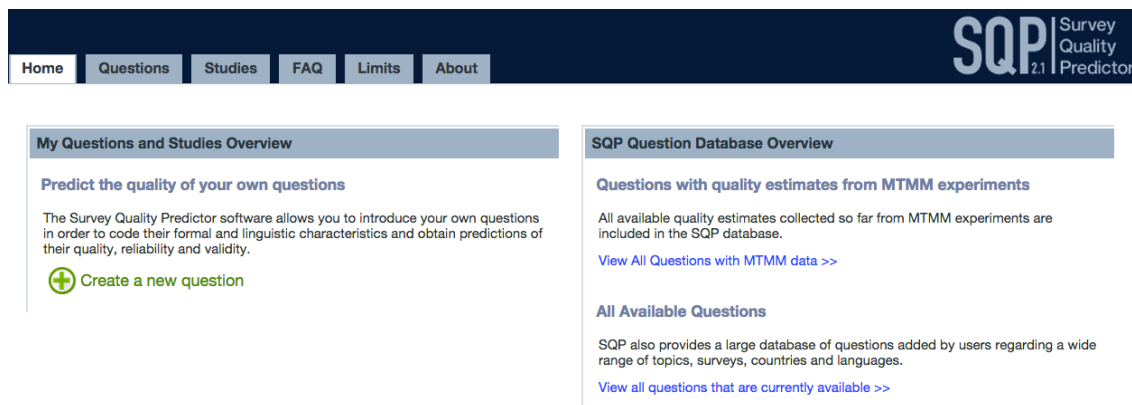
However, the SQP Demo does provide a study which contains a sample of the type of survey questions that can be found in the SQP database. In this study, named as 'SQP Illustration', the users can find a set of questions with MTMM estimates and authorized quality predictions<sup>7</sup>.

Once the Demo users are familiar with the use of the software and the coding procedure of the characteristics, it is recommended registering with SQP using a personal username and password.

## 2. Getting started

Once logged in as registered SQP users, users are directed to the SQP Home page. As illustrated in [Screen 2](#), the SQP Home page provides a good overview of the main features of the software.

*Screen 2: SQP Home page*



[Screen 2](#) shows that in SQP three main options are available. Users can: 1) Create a new question, 2) view the questions that were part of a MTMM experiment, and 3) view all available questions in the database. Below, these three features are described.

<sup>6</sup> A study within SQP, groups a set of survey questions under the generic and meaningful title. It is strongly recommended naming the SQP studies under the name of the research project, the questionnaire or the survey agency or organization (e.g. ESS Round 1 refers to all questions in the first Round of the European Social Survey).

<sup>7</sup> The SQP team can authorize quality predictions.

## 2.1. Creating a new question in SQP

Following the link 'Create a new question' on the SQP Home page (see [Screen 2](#)), users are able to specify the details of the new question they want to add. These details, as shown in [Screen 2.1.1](#), refer to the study to which it belongs, the language in which it is written and the country in which the survey question is asked. The countries for which SQP is able to provide a prediction are limited. The list of countries for which the current version of SQP is able to provide a prediction is the following:


**Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Ireland, Netherlands, Norway, Poland, Portugal, Slovenia, Slovakia, Spain, Switzerland, Sweden, Ukraine and United States.**

Therefore, if your question belongs to a country not on the list, SQP will require you to specify a 'Prediction country' for which you will be able to obtain a quality prediction. It is suggested you select as a second country the one from the list which is most similar in terms of linguistic and cultural characteristics. With regard to the selection of a study, it is recommended that users choose a study which is meaningful for the question created. Preferably, users can choose a study which has already been created by him or her, rather than adding questions to studies, which are neither his or her own or related to their question. If the question the users want to create belongs to an already existing study, users would be able to find it in the database and code it. For testing non-meaningful or serious questions, it is suggested that the SQP Demo is used, which was created for this purpose.

Furthermore, users are able to specify a name for the question, which can be the name of the question in the questionnaire, a short name, which can be the name in the dataset, and the concept that is measured.

*Screen 2.1.1: New question details*

**Question Details**

**Study:** -- select --  Add New Study

**Question Country:** -- select --

**Language:** -- select --

**Name in the Questionnaire:**   
This is the number or name of the question in the questionnaire. For example: 1, 2, 3, A1, B3

**Short name (Name in the Dataset):**   
For example: TVTOT, STFGOV, POLCMPL

**Concept:**   
Indicate what concept you are trying to measure with this question.

To add a new survey question, users have to specify the text of the question in the correct boxes. SQP provides the users with three different boxes for the question text: 1) the 'Introduction Text' box, 2) the 'Request for Answer Text' box and 3) the 'Answer Options' box.

### Screen 2.1.2: Introduction of a new question text

**Introduction Text:**

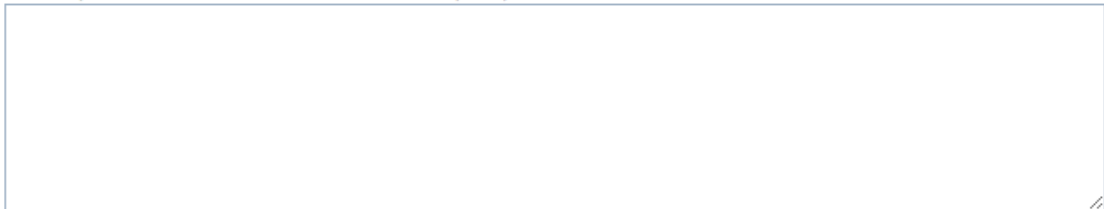
If Present - Text in the question used to introduce the concept of the question. Such as: "Now I am going to ask you about..."

A large, empty rectangular text box with a thin blue border and a small diagonal icon in the bottom right corner, intended for the introduction text.**Request for Answer Text:**

Text in the question that requests an answer such as: "Please select the option....", "How much time..."

A large, empty rectangular text box with a thin blue border and a small diagonal icon in the bottom right corner, intended for the request for answer text.**Answer options:**

Answer options or numbers in the answer scale. One option per line.

A large, empty rectangular text box with a thin blue border and a small diagonal icon in the bottom right corner, intended for the answer options.

**Save Question**

As illustrated in [Screen 2.1.2](#), in the first box users have to write the introduction text of the question, if there is any. Introductions usually serve to introduce the concept of the next question(s). For example:

*"Next I will ask you some questions about politics."*

In the second box, users have to write the text of the question, or as SQP calls it, the request for an answer<sup>8</sup>. This text should only include the text that is actually read to or by the respondent, thus, interviewer instructions should be left out. For example, a request for an answer would be:

*"Could you tell me to what extent you agree or disagree with the way democracy works? Use this card to answer."*

Finally, in the third box, the answer options have to be introduced. If it is a close-ended response scale, users have to introduce one option per line. However, if it is an open-ended question, users should leave the box empty. Continuing with the example, the answer options could be introduced as follows:

---

<sup>8</sup> SQP refers to questions to the text that involves an introduction, a request for an answer and the answer options. Thus, an open-ended question without an introduction will be equal to its request for an answer.

- “1. Completely disagree
2. Disagree
3. Neither agree nor disagree
4. Agree
5. Completely agree”

Only if the ‘Don’t Know’ option is explicitly provided, users should add the ‘Don’t Know’ as an extra option. However, if the ‘Don’t Know’ option is implicitly used or not used at all, then it should not appear in the ‘Answer Options’ box. In any case, it will be later coded as a formal characteristic of the response scale.

## 2.2. Questions with MTMM estimates

The MTMM estimates available in SQP refer to the estimated results from MTMM experiments carried out in different surveys<sup>9</sup> over the last decades. These results are not obtained through the SQP prediction system. Instead, most of them are actually used in SQP as part of the analysis together with the characteristics of the questions, which allows the quality of new questions to be predicted.

If users are interested in checking the questions available with MTMM estimates, they can access them through the SQP Home page by clicking ‘View all questions with MTMM estimates’ (see [Screen 2](#)). This link will provide users with the list of survey questions with MTMM estimates, as in [Screen 2.2](#).

Screen 2.2: List of questions with MTMM estimates in the SQP database

Question	Study	Language	Country	Quality
A8 / PplTrst / Social trust , careful	ESS Round 1	German	Austria	M A
A9 / PplFair / Social trust , take advantage	ESS Round 1	German	Austria	M A
A10 / PplHlp / Social trust , helpful	ESS Round 1	German	Austria	M A
B2 / PolCmpl / Internal political efficacy , complicated	ESS Round 1	German	Austria	M A
B3 / PolActiv / Internal political efficacy , active role	ESS Round 1	German	Austria	M A
B4 / PolDes / Internal political efficacy , make up mind	ESS Round 1	German	Austria	M A
B7 / TrstPrl / Political trust , institutions , parliament	ESS Round 1	German	Austria	M A
B8 / TrstLgl / Political trust , institutions , legal system	ESS Round 1	German	Austria	M A
B9 / TrstPlo / Political trust , institutions , police	ESS Round 1	German	Austria	M A
B30 / SMCeco / Political satisfaction , country's economy	ESS Round 1	German	Austria	M A
B31 / SMCgov / Political satisfaction , government performance	ESS Round 1	German	Austria	M A
B32 / SMCdem / Political satisfaction , functioning of democracy	ESS Round 1	German	Austria	M A
B43 / GlnvEco / Left right orientation , government intervention economy	ESS Round 1	German	Austria	M A
B44 / GlnvDif / Left right orientation , income equality	ESS Round 1	German	Austria	M A
B45 / NeedTru / Left right orientation , role trade unions	ESS Round 1	German	Austria	M A
H4 / TEST4 / Internal political efficacy , complicated	ESS Round 1	German	Austria	M A
H5 / TEST5 / Internal political efficacy , active role	ESS Round 1	German	Austria	M A
H6 / TEST6 / Internal political efficacy , make up mind	ESS Round 1	German	Austria	M A
H7 / TEST7 / Political satisfaction , country's economy	ESS Round 1	German	Austria	M A
H8 / TEST8 / Political satisfaction , government performance	ESS Round 1	German	Austria	M A

All MTMM questions are identified by the key (M) and they also have authorized quality predictions. Authorized predictions can be identified by the key (A).

<sup>9</sup> MTMM experiments carried out in surveys such as: European Social Survey (ESS), Eurobarometer, Dutch Gallup Organization, Study of Michigan Generations Panel survey, etc.

## 2.3. All available questions in SQP

The list of all available questions in the database is shown on the SQP Home page, as presented on [Screen 2.3](#), by clicking on the link 'View all questions which are currently available' (see [Screen 2](#)).

Screen 2.3: List of all available questions in the SQP database

Home > All Questions

**Filter Questions**

Show Questions From:

All Studies

All Languages

All Countries

Containing Text:

Selection Criteria:

☐ Only with Predictions

☐ Only with MTMM

My Questions

[Add New Question](#)

Key

Other Country Predictions

My Questions and Codings

Authorized Predictions

Other User Predictions

MTMM Data Available

Question	Study	Language	Country	Quality
A1 / TvTot / Media use, tv total	ESS Round 1	German	Austria	A
A2 / TvPol / Media use, tv politics	ESS Round 1	German	Austria	
A3 / RdTot / Media use, radio total	ESS Round 1	German	Austria	A
A4 / RdPol / Media use, radio politics	ESS Round 1	German	Austria	
A5 / NwspTot / Media use, newspaper total	ESS Round 1	German	Austria	A
A6 / NwspPol / Media use, newspaper politics	ESS Round 1	German	Austria	
A7 / NetUse / Media use, internet	ESS Round 1	German	Austria	
A8 / PplTrst / Social trust, careful	ESS Round 1	German	Austria	M A 2
A9 / PplFair / Social trust, take advantage	ESS Round 1	German	Austria	M A
A10 / PplHlp / Social trust, helpful	ESS Round 1	German	Austria	M A
B1 / PolInt / Political interest	ESS Round 1	German	Austria	
B2 / PolCmpl / Internal political efficacy, complicated	ESS Round 1	German	Austria	M A
B3 / PolActv / Internal political efficacy, active role	ESS Round 1	German	Austria	M A
B4 / PolDcs / Internal political efficacy, make up mind	ESS Round 1	German	Austria	M A
B5 / PliCare / External political efficacy, no care	ESS Round 1	German	Austria	
B6 / PliInvt / External political efficacy, people's opinions	ESS Round 1	German	Austria	
B7 / TrstPri / Political trust, institutions, parliament	ESS Round 1	German	Austria	M A
B8 / TrstLgl / Political trust, institutions, legal system	ESS Round 1	German	Austria	M A
B9 / TrstPli / Political trust, institutions, police	ESS Round 1	German	Austria	M A
B10 / TrstPit / Political trust, authorities, politicians	ESS Round 1	German	Austria	

Showing questions 1 to 20 of 68107 total

The list of questions shows the name of the questions (in navy blue) and the short name (in a lighter blue color). It also provides information regarding the concept measured, the study it belongs to, the language, the country, and the type of quality information available. In the 'Quality' column, users can see if the question belongs to an MTMM experiment (M), if the quality prediction belongs to the users themselves (U), or to another user (A), and/or if it has been authorized (A) by the SQP team.

An authorized prediction implies the coding of the formal and linguistic characteristics being done by trained native speakers under the control and supervision of the SQP team.

Furthermore, the 'Quality' column indicates if the question prediction belongs to a different country than the one presented for the question, i.e. a 'Prediction country'. This is indicated by the key .

## 3. How to find your question of interest in SQP

Once on the list of questions screen, if users are interested in a specific topic, they should use the 'Containing text' filter option. The 'Filter Questions' options are placed in the column on the left hand side of the question list (see [Screen 2.3](#)). The 'Containing text' box looks for the wording in any part of the question (i.e. the name, the short name, the concept or the question texts). This leads users to a shorter list of questions containing the selected text for the languages, countries and studies for which it is available. [Screen 3.1](#) illustrates that by searching for the word "political efficacy", where the complete list of more than 65,000 questions (see [Screen 2.3](#)) is reduced to 695 questions.



Screen 3.1: Containing text filter

Home Questions Studies FAQ Limits About

[Home](#) > [All Questions](#)

**Filter Questions**

Show Questions From:

All Studies ▼

All Languages ▼

All Countries ▼

Containing Text:

political efficacy 🔍

Symbols, punctuation and diacritical marks and capital letters are not considered.

Selection Criteria:

☐ Only with Predictions

☐ Only with MTMM

My Questions

+ Add New Question

Key

- C Other Country Predictions
- + My Questions and Codings
- A Authorized Predictions
- U Other User Predictions
- M MTMM Data Available

Question	Study	Language	Country	Quality
B2 / PolCmpl / Internal political efficacy , complicated	ESS Round 1	German	Austria	M A
B3 / PolActiv / Internal political efficacy , active role	ESS Round 1	German	Austria	M A
B4 / PolDcs / Internal political efficacy , wake up mind	ESS Round 1	German	Austria	M A
B5 / PitCare / External political efficacy , no care	ESS Round 1	German	Austria	
B6 / PitInvt / External political efficacy , people's opinions	ESS Round 1	German	Austria	
H4 / TEST4 / Internal political efficacy , complicated	ESS Round 1	German	Austria	M A
H5 / TEST5 / Internal political efficacy , active role	ESS Round 1	German	Austria	M A
H6 / TEST6 / Internal political efficacy , wake up mind	ESS Round 1	German	Austria	M A
H22 / TEST22 / Internal political efficacy , complicated	ESS Round 1	German	Austria	M A
H23 / TEST23 / Internal political efficacy , active role	ESS Round 1	German	Austria	M A
H24 / TEST24 / Internal political efficacy , wake up mind	ESS Round 1	German	Austria	M A
B2 / PolCmpl / Internal political efficacy , complicated	ESS Round 1	French	Belgium	A
B3 / PolActiv / Internal political efficacy , active role	ESS Round 1	French	Belgium	A
B4 / PolDcs / Internal political efficacy , wake up mind	ESS Round 1	French	Belgium	A
B5 / PitCare / External political efficacy , no care	ESS Round 1	French	Belgium	
B6 / PitInvt / External political efficacy , people's opinions	ESS Round 1	French	Belgium	
H4 / TEST4 / Internal political efficacy , complicated	ESS Round 1	French	Belgium	A
H5 / TEST5 / Internal political efficacy , active role	ESS Round 1	French	Belgium	A
H6 / TEST6 / Internal political efficacy , wake up mind	ESS Round 1	French	Belgium	A
H22 / TEST22 / Internal political efficacy , complicated	ESS Round 1	French	Belgium	A

Showing questions 1 to 20 of 695 total 🔍

However, if users already know of the existence of a specific question in a study or are only interested in a certain language or country, then they can add to the filter options the study, the language and/or the country to obtain an even shorter list. For instance, imagine that users are interested in a question regarding “political efficacy” asked in the United Kingdom and users know that such a topic was asked in ESS Round 1. Users should select from the options: ‘All Studies = ESS Round 1’, ‘All languages = English’ and ‘All countries = United Kingdom’, as in [Screen 3.2](#). With these details, the list has now been reduced to 11 questions.

Screen 3.2: Using filter options in SQP

Home Questions Studies FAQ Limits About

[Home](#) > [All Questions \(ESS Round 1, United Kingdom, English\)](#)

**Filter Questions**

Show Questions From:

ESS Round 1 ▼

English ▼

United Kingdom ▼

Containing Text:

political efficacy 🔍

Symbols, punctuation and diacritical marks and capital letters are not considered.

Selection Criteria:

☐ Only with Predictions

☐ Only with MTMM

My Questions

+ Add New Question

Key

- C Other Country Predictions
- + My Questions and Codings
- A Authorized Predictions
- U Other User Predictions
- M MTMM Data Available

Question	Study	Language	Country	Quality
B2 / PolCmpl / Internal political efficacy , complicated	ESS Round 1	English	United Kingdom	M A U
B3 / PolActiv / Internal political efficacy , active role	ESS Round 1	English	United Kingdom	M A
B4 / PolDcs / Internal political efficacy , wake up mind	ESS Round 1	English	United Kingdom	M A
B5 / PitCare / External political efficacy , no care	ESS Round 1	English	United Kingdom	
B6 / PitInvt / External political efficacy , people's opinions	ESS Round 1	English	United Kingdom	
H4 / TEST4 / Internal political efficacy , complicated	ESS Round 1	English	United Kingdom	M A
H5 / TEST5 / Internal political efficacy , active role	ESS Round 1	English	United Kingdom	M A
H6 / TEST6 / Internal political efficacy , wake up mind	ESS Round 1	English	United Kingdom	M A
H22 / TEST22 / Internal political efficacy , complicated	ESS Round 1	English	United Kingdom	M A
H23 / TEST23 / Internal political efficacy , active role	ESS Round 1	English	United Kingdom	M A
H24 / TEST24 / Internal political efficacy , wake up mind	ESS Round 1	English	United Kingdom	M A

Showing questions 1 to 11 of 11 total 🔍

This list shows that 9 out of the 11 questions belong to MTMM experiments. This means that information about the results of these experiments is available for each of these questions. These 9 questions have also already been coded and authorized by the SQP team, meaning that a trustworthy prediction is available for the users. Furthermore, the first question in the list, question B2, has a quality prediction made by another user.

### 3.1. When the question of interest is already coded

If users choose a question that has already been coded, the details of the quality predictions will already be available. For example, by selecting question B2, (in [Screen 3.2](#)) users will get the pop-up [Screen 3.1.1](#), in which the question text and a summary of the quality information are presented.

*Screen 3.1.1: Predictions available for the users*

**B2 / PolCmpl / Internal political efficacy , complicated**  
 ESS Round 1 United Kingdom - English

**Request for Answer Text:**  
 How often does politics seem so complicated that you can't really understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

Information	Quality	Options
MTMM Estimate	0.544	<a href="#">View MTMM Results &gt;&gt;</a>
Authorized Prediction	0.645	<a href="#">View Prediction Detail &gt;&gt;</a>
User Prediction by User 576	0.662	<a href="#">View Prediction Detail &gt;&gt;</a>
My Quality Prediction		<a href="#">Code question to create my own quality prediction &gt;&gt;</a>

[Screen 3.1.1](#) provides two different quality predictions and an MTMM estimate. Users will notice that the qualities vary considerably. Firstly, it is important to mention that the MTMM estimates and the SQP predictions do not necessarily have to provide the same quality. Taking into account that the quality estimates obtained through MTMM experiments are the result of a one point in time analysis, and given that the SQP predictions are based on the results of many of these analyses, in general, the SQP quality prediction is a more reliable source than the MTMM estimates. There are only two cases in which it would be advisable to rely on the MTMM estimates rather than the SQP predictions:

1) Agree – Disagree (AD) scales cannot be identified yet in the SQP characteristics (see [Limit 4](#)). Thus, although it has been demonstrated that the quality of item-specific (IS) scales is much higher than AD scales (Saris et al., 2010)<sup>10</sup>, SQP would not be able to distinguish both.

<sup>10</sup> Saris, W. E., Revilla, M., Krosnick, J.A. and Shaeffer, E.M. (2010). Comparing Questions with Agree/Disagree Response Options to Questions with Construct-Specific Response Options. *Survey Research Methods*, 4(1): 61-79. Available at: <https://ojs.ub.uni-konstanz.de/srm/article/view/2682>

2) If a question in a country deviates considerably from the general trends of the question in the database of all countries. The SQP predictions are based on the general trends of the relationships between the different characteristics of the MTMM questions and the MTMM quality estimates of these questions in all countries.

Furthermore, it is important to remember the distinction between user predictions (U) and authorized predictions (A). The coding procedure of the questions' characteristics is not so simple. Because questions with authorized predictions have been coded by trained native speakers under the control and supervision of the SQP team, the codes and predictions of these questions are the most trustworthy ones.

Whenever the question of interest is coded but not authorized, it is recommended double-checking the coding before using its results, as the coding decisions affect the prediction results. Therefore, users should do the coding carefully. As far as possible, it is recommended doing the coding with two independent coders in order to prevent unintended errors.

Furthermore, users can obtain the estimates and predictions for the reliability, validity and quality by clicking on the link 'View prediction detail' (in [Screen 3.1.1](#)). The prediction details for the authorized prediction and MTMM results are presented in [Screen 3.1.2](#).

*Screen 3.1.2: SQP quality prediction details and MTMM results*

Question				
<b>B2 / PolCmpl / Internal political efficacy , complicated</b> ESS Round 1 United Kingdom - English <a href="#">+ Show Question Text</a>				
Quality Prediction				
A Authorized Quality Prediction				
Prediction Overview		View Quality Coefficients	U MTMM Results	
		Prediction	MTMM Estimate	MTMM 95% Confidence Interval
Reliability = 1 - random error	r <sup>2</sup>	0.658	0.545	( 0.477, 0.608 )
Validity = 1 - method effect	v <sup>2</sup>	0.981	0.997	( 0.996, 0.998 )
Quality = reliability (r <sup>2</sup> ) x validity (v <sup>2</sup> )	q <sup>2</sup>	0.645	0.544	( 0.475, 0.607 )
<div> <div> <b>Potential Improvement Tool</b>            View the suggestions for improving the overall question quality by changing a question's formal or linguistic characteristics.  <a href="#">View Potential Improvements</a> </div> <div> <b>Show Codes of Characteristics Used to Create this Quality Prediction</b>            The quality prediction has been obtained using codes for a series of formal and linguistic characteristics for this question.  <a href="#">View Prediction Codes</a> </div> </div>				

#### 4. Coding the characteristics of a question

In order to start coding the characteristics, users have to select the question of interest and click on: 'Code question to create my own quality prediction' (the last link in [Screen 3.1.1](#)). Even if another user has already coded the question, users will still be able to code it.

The software will show, as in [Screen 4.1](#), the selected question to be coded, including the introduction (if present), the request for answer and the answer options. However, this text is just a reminder and should not be the object of coding. Coders should base their codes on the country questionnaires and showcards (if used). For example, the interviewer instructions and the "Don't Know" option would hardly ever appear on the screens, therefore users should rely on the information in the questionnaires to see whether there are instructions or not.

### Screen 4.1: Starting the coding procedure

Question	Question Coding
<p><b>B2 / PolCmpl / Internal political efficacy , complicated</b> ESS Round 1 United Kingdom - English</p> <p><b>Request for Answer Text:</b> How often does politics seem so complicated that you can't really understand what is going on? Please use this card.</p> <p><b>Answer options:</b></p> <ul style="list-style-type: none"> <li>• Never</li> <li>• Seldom</li> <li>• Occasionally</li> <li>• Regularly</li> <li>• Frequently</li> </ul>	<p>There are no codings of the formal and linguistic characteristics for this question available yet.</p> <p><a href="#">Begin Coding</a></p>

Once the users start the coding process, SQP will provide the set of characteristics that need to be coded based on the question selected and previous coding decisions. For example, if users specify that there is no introduction present, SQP will not ask about the linguistic characteristics of the introduction.

The choices of characteristics appear above the question text, on the left hand side of the screen. To keep track of the users' coding decisions, SQP provides the progress of the coding on the right hand side of the screen. [Screen 4.2](#) is an illustration of what the coding looks like when it is still in progress. In the list on the right hand side, it is indicated that 6 characteristics have already been coded, among which are: the 'Domain' and the 'Concept' of the question. Now users have to indicate in the options above the question text if the request is formulated in a direct or indirect way, or if no request is present in this question.

### Screen 4.2: Coding progress

Selected Characteristic	Characteristic	Choice	Code
<p><b>Formulation of the request for an answer: basic choice</b></p> <p><b>Please select one:</b></p> <p><input type="radio"/> Indirect requests</p> <p><input type="radio"/> Direct request</p> <p><input type="radio"/> No request present (e.g. not the first item of battery)</p> <p><b>Formulation of the request for an answer: basic choice</b></p> <p>Requests for an answer can either be formulated as: Indirect requests, which are characterized by the use of pre-requests such as: "Do you think that...?" "Would you say that...?" "Could you tell me...?" "Please..."</p> <p><a href="#">more &gt;&gt;</a></p> <p><a href="#">&lt; Previous</a> <a href="#">Next &gt;</a></p>	Domain	National politics	1
	Domain: national politics	National government	1
	Concept	Evaluative belief	1
	Social Desirability	A bit	1
	Centrality	Very central/salient	4
	Reference period	Present	2
<p><b>Formulation of the request for an answer: basic choice</b></p>			
<p><b>Question Coding</b></p> <p>This question is not yet completely coded.</p> <p><a href="#">Continue Coding</a></p>			
<p><b>Question</b></p> <p><b>B2 / PolCmpl / Internal political efficacy , complicated</b> ESS Round 1 United Kingdom - English</p> <p><b>Request for Answer Text:</b> How often does politics seem so complicated that you can't really understand what is going on? Please use this card.</p> <p><b>Answer options:</b></p> <ul style="list-style-type: none"> <li>• Never</li> <li>• Seldom</li> <li>• Occasionally</li> <li>• Regularly</li> <li>• Frequently</li> </ul>			

To obtain an overview of the type of characteristics users will be asked to code in SQP, [Table 1](#) provides a short description of the basic characteristics they will encounter while coding. Note that not all characteristics have been introduced in the table because some characteristics depend on the previous coding, e.g. specific characteristics for the type of response options, specific linguistic characteristics if the introduction is present, specific characteristics if a showcard is used, etc.

Table 1: Summary of SQP basic characteristics	
Characteristics	Short Description
<b>Domain</b>	The domain is the topic of the assertion that one wants to measure using this question. It is determined by the research goal.
<b>Concept</b>	The concept that they want to measure should be classified in one of the basic concepts distinguished on the list.
<b>Social desirability</b>	Social desirability is connected with the choice of the domain. Identifies sensitive/delicate/irritable questions, which can bias the responses obtained.
<b>Centrality</b>	Centrality is also directly connected with the choice of the domain. It measures the familiarity of the respondents with the topic.
<b>Reference period</b>	Is again also connected with the research topic. The time period mentioned in the request can be: present, past or future.
<b>Formulation of the request for an answer: basic choice</b>	Identifies if a request is formulated as a direct or indirect request or if there is no request present, which means that the request (in this case the stimuli or statement) belongs to a battery of questions (except for the first item of the battery which will be either a direct or an indirect request introducing the battery).
<b>WH word used in the request</b>	Identifies questions that use words like: 'who', 'which', 'what', 'when', 'where' and also 'how', 'to what extent', 'to what/which degree' or 'whether'. Or translations of them in other languages.
<b>Request for an answer type</b>	Identifies if a question is formulated in an interrogative, imperative or declarative form.
<b>Use of gradation</b>	Identifies requests that indicate responses that can be ordered from low to high or from high to low.
<b>Balance of the request</b>	Identifies leading questions. A request is Balanced when it contains both possible answer poles and Unbalanced when just one pole is mentioned.
<b>Presence of encouragement to answer</b>	Identifies leading questions. A request is Balanced when it contains both possible answer poles and Unbalanced when just one pole is mentioned.
<b>Emphasis on subjective opinion</b>	Identifies an emphasis on the opinion of the respondent about something, like: 'Please give us your opinion about...', 'According to you...', 'What do you think about...', etc.
<b>Information regarding the opinion of other people</b>	Identifies when opinions of other people are given in the request, like: 'Some people are against nuclear energy while others are in favour of it...'
<b>Use of stimulus or statement in the request</b>	Identifies batteries of questions. A stimulus in a question can be a noun or a combination of nouns. A statement in a question consists of complete sentences.
<b>Absolute or comparative judgement</b>	Identifies if the respondent has to compare two events or things. For example: 'Are you feeling better than last year or not?'
<b>Response scale: basic choice</b>	Identifies what types of answer options are provided: 1. Categories, 2. Frequencies, 3. Yes/ No scales, etc.
<b>Response scale characteristics</b>	Number of categories, frequencies and maximum possible value
	Labels of the categories
	Labels with short or long text
	Order of the labels
	Correspondence between the labels and the numbers of the scale
	Theoretical range of scale bipolar/ unipolar

	Range of the used scale bipolar/ unipolar
	Symmetry of the response scale
	Neutral category
	Number of fixed reference points
<b>Don't know option</b>	Identifies whether there is a Don't know option.
<b>Interviewer instruction</b>	If an interviewer administers the survey, interviewer instructions will often be present, regarding which card to use or how to continue.
<b>Respondent instruction</b>	An instruction to the respondent is often present in imperative requests. However, these instructions explicitly ask the respondent to do something.
<b>Extra motivation, information or definition available</b>	Identifies if there is an extra sentence introducing a motivation, other information or a definition of something.
<b>Introduction available</b>	Identifies the presence of an introduction, which mainly serves to initiate the topic of the request to the respondent.
<b>Linguistic characteristics of the introduction, the request for an answer and the answer scale</b>	Number of sentences in the introduction
	Number of words in the introduction
	Number of subordinate clauses in the introduction
	Request present in the introduction
	Number of sentences in the request
	Number of words in the request
	Total number of nouns in the request for an answer
	Total number of abstract nouns in the request for an answer
	Total number of syllables in request
	Number of subordinate clauses in request
	Number of syllables in answer scale
	Total number of nouns in answer scale
	Total number of abstract nouns in answer scale
<b>Show card used</b>	Identifies the use of Show cards. These are sometimes used during the interview to show the response options or to assist in explaining the question.
<b>Show card characteristics</b>	Horizontal or vertical scale
	Overlap of text categories
	Numbers or letter before answer categories
	Scale with numbers or numbers in boxes
	Start of the response sentence on the show card
	Question on the show card
	Picture provided
<b>Computer assisted</b>	Identifies the mode of data collection: if the interview is computer-based or not.
<b>Interviewer</b>	Identifies the mode of data collection: if it is a personal interview or a self-administered questionnaire.
<b>Visual or oral presentation</b>	It identifies if the questionnaire is self-administered (visual) or interviewer-administered (oral).
<b>Position</b>	Identifies the position of the question in the questionnaire.

SQP provides Coding Help screens, such as the yellow box presented in [Screen 4.3](#), which explain every characteristic in detail. However, for specific questions regarding the coding, coders can send an email to: [sqp@upf.edu](mailto:sqp@upf.edu).

Screen 4.3: Coding Help screens

**Selected Characteristic**

**Formulation of the request for an answer: basic choice**

Please select one:

☐ Indirect requests

☐ Direct request

☐ No request present (e.g. not the first item of battery)

< Previous Next >

**Question**

**B2 / PolCmpl / Internal political efficacy , comp**

ESS Round 1 United Kingdom - English

**Request for Answer Text:**

How often does politics seem so complicated that you c understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

**Formulation of the request for an answer: basic choice**

Requests for an answer can either be formulated as:

**Indirect requests**, which are characterized by the use of pre-requests such as:

"Do you think that...?"

"Would you say that...?"

"Could you tell me...?"

"Please tell me what you think about..."

"Please indicate on a scale from 0 to 10 how much..."

"Do you agree or disagree..."

These types of requests are more formal and polite than direct requests. For example:

"Please indicate how satisfied you are with the present state of the economy in your country?"

"Would you say that cultural life is generally enriched or undermined by people coming to live here from other countries?"

**Direct requests** do not contain a pre-request but are characterized by the inversion of the verb and the subject. For example:

"How satisfied are you with the present state of the economy in your country?"

"Is cultural life generally enriched or undermined by people coming to live here from other countries?"

"On an average weekday, how much time in total, do you spend surfing the Internet?"

**No request present (e.g. not the first item of battery):** Commonly this occurs in batteries, where a set of stimulus or statement is given, implying through the context or the response options that an answer is required. In batteries, the request is formulated before the first item and is not repeated after that. In that case, after the first item all items do not contain any request. Go to **FAQ 7** to see how batteries are treated in SQP. For example:


Characteristic	Choice	Code
Domain	National politics	1
Domain: national politics	National government	1
	Evaluative belief	1
	A bit	1
	Very central/salient	4
	Present	2

## 5. Task finished

To complete coding the characteristics of a survey question and obtain a quality prediction, users will need to identify between 30 and 60 characteristics of the question from a total of 73, depending on the complexity of the question being evaluated. At first, this may seem rather tedious. However, as soon as users become familiar with the characteristics and their meanings, the coding procedure becomes simpler and faster. As illustrated in [Screen 5.1](#), the software will display a message when the coding is completed.

Screen 5.1: Coding complete

**Question Coding Complete**

 **Coding Complete!**

This question has been completely coded.

**Question Quality Prediction**

Get a prediction of the quality of this question based on the choices made for each characteristic.

Get Quality Prediction >

**Return to the question list.**

Back to Question List

**Question**

**B2 / PolCmpl / Internal political efficacy , complicated**

ESS Round 1 United Kingdom - English

**Request for Answer Text:**

How often does politics seem so complicated that you can't really understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

**Your Quality Prediction for this Question**

View a prediction of the quality of this question based on the choices made for each characteristic.

View Quality Prediction >

Characteristic	Choice	Code
Domain	National politics	1
Domain: national politics	National government	1
Concept	Evaluative belief	1
Social Desirability	A bit	1
Centrality	Very central/salient	4
Reference period	Present	2
Formulation of the request for an answer: basic choice	Indirect requests	1
WH word used in the request	WH word used	1
WH word	How (intensity)	11
Request for an answer type	Interrogative	1
Use of gradation	Gradation used	1
Balance of the request	Balanced or not applicable	0
Presence of encouragement to answer	No particular encouragement present	0
Emphasis on subjective opinion in request	No emphasis on opinion present	0
Information about the opinion of other people	No information about opinions of others	0
Use of stimulus or statement in the request	No stimulus or statement	0
Absolute or comparative judgment	An absolute judgement	0
Response scale: basic choice	More than 3 category scales	0
Number of categories	5	5
Labels of categories	Fully labelled	3
Labels with short text or complete sentences	Short text	0
Order of the labels	First label negative or not applicable	1
Correspondence between labels and numbers of the scale	Medium correspondence	2
Theoretical range of the concept bipolar/unipolar	Theoretically unipolar	0
Number of fixed reference points	1	1
Don't know option	DK option only registered	2

By selecting 'Get quality prediction', users can obtain predictions of the reliability, validity and quality of the question (see [Screen 5.2](#)). By selecting 'Back to question list' users can go back to the screen which displays the list of filtered questions (as shown in [Screen 3.2](#)).

*Screen 5.2: Prediction overview*

**Question**  
**B2 / PolCmpl / Internal political efficacy , complicated**  
ESS Round 1 United Kingdom - English  
[+ Show Question Text](#)

**Quality Prediction**  
 My Quality Prediction

**Prediction Overview**
[View Quality Coefficients](#)

**MTMM Results**

		Prediction	MTMM Estimate	MTMM 95% Confidence Interval
Reliability = 1 - random error	$r^2$	0.662	0.545	( 0.477, 0.608 )
Validity = 1 - method effect	$v^2$	0.977	0.997	( 0.996, 0.998 )
Quality = reliability ( $r^2$ ) x validity ( $v^2$ )	$q^2$	0.646	0.544	( 0.475, 0.607 )

**Potential Improvement Tool**  
View the suggestions for improving the overall question quality by changing a question's formal or linguistic characteristics.  
[View Potential Improvements](#)

**Show Codes of Characteristics Used to Create this Quality Prediction**  
The quality prediction has been obtained using codes for a series of formal and linguistic characteristics for this question.  
[View Prediction Codes](#)

In the predictions overview, users will find the information regarding the reliability, validity and quality of the predictions and those from the MTMM results (if available). Moreover, users have the option to 'View Quality Coefficients' (see [Screen 5.3](#)). These are the square root of the quality indicators on the previous screen.

*Screen 5.3: Quality coefficients*

**Question**  
**B2 / PolCmpl / Internal political efficacy , complicated**  
ESS Round 1 United Kingdom - English  
[+ Show Question Text](#)

**Quality Prediction**  
 My Quality Prediction

**Quality Coefficients**
[Back to Prediction Overview](#)

**MTMM Results (coefficients)**

		Prediction	Interquartile range	Predicted standard error	MTMM Estimate	MTMM 95% Confidence Interval
Reliability Coefficient	$r$	0.814	( 0.738, 0.860 )	0.134	0.738	( 0.690, 0.780 )
Validity Coefficient	$v$	0.988	( 0.943, 0.998 )	0.132	0.998	( 0.998, 0.999 )
Quality Coefficient	$q$	0.804	( 0.700, 0.831 )	0.101	0.737	( 0.689, 0.779 )

**Potential Improvement Tool**  
View the suggestions for improving the overall question quality by changing a question's formal or linguistic characteristics.  
[View Potential Improvements](#)

**Show Codes of Characteristics Used to Create this Quality Prediction**  
The quality prediction has been obtained using codes for a series of formal and linguistic characteristics for this question.  
[View Prediction Codes](#)



On [Screen 5.3](#), SQP also provides the uncertainty of the estimates by indicating their interquartile ranges and the standard errors.

## 6. Potential improvements tool

To conclude, SQP not only allows users to obtain the quality prediction of survey questions, but also to view the potential improvements that could be made in the survey question to obtain a higher quality. The ‘View potential improvements’ tool can be accessed from the link on the bottom left hand side of [Screen 5.2](#) and [Screen 5.3](#). This tool suggests to users which characteristics of the survey question could be corrected in order to obtain a better quality (see [Screen 6.1](#)).

*Screen 6.1: View potential improvements tool, 20 first characteristics*

Question

**B2 / PolCmpl / Internal political efficacy , complicated**  
ESS Round 1 United Kingdom - English

**Request for Answer Text:**  
How often does politics seem so complicated that you can't really understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

[- Hide Question Text](#)

Quality Prediction

My Quality Prediction

Reliability = 1 - random error  $r^2$  **0.662**

Validity = 1 - method effect  $v^2$  **0.977**

Quality = reliability ( $r^2$ ) x validity ( $v^2$ )  $q^2$  **0.646**

Potential Improvements

**Top Variables (over all questions)**

The top variables that have, in general, the most impact, over all questions, have been evaluated. However for this specific question, other variables may also be important.

[Evaluate all remaining variables >](#)

Variable	Potential Max Quality by Change in Variable
Number of categories	0.679  + 0.03
Correspondence between labels and numbers of the scale	0.662  + 0.02
Neutral category	0.655  + 0.01
Start of the response sentence on the visual aid	0.652  + 0.01
Labels of categories	0.651  + 0.01
Order of the labels	0.650
Use of gradation	0.649
Horizontal or vertical scale	0.649
WH word used in the request	0.649

Selected Variable

Click on a variable on the left to see the potential change in the quality that could be produced by a different value for that variable.

In the context of designing a survey question, users should take into account the purpose of the question, and evaluate the tool suggestions critically when deciding whether or not they apply to the survey question.

This tool firstly presents a selection of characteristics which are most important for all questions. To obtain the complete list of suggested improvements, click on “Evaluate all remaining variables” (in [Screen 6.1](#)). The complete list consists of 63 characteristics that can be used to improve the question (see [Screen 6.2](#)).

## Screen 6.2: View potential improvements tool, all characteristics

**Question**

**B2 / PolCmpl / Internal political efficacy , complicated**  
ESS Round 1 United Kingdom - English

**Request for Answer Text:**  
How often does politics seem so complicated that you can't really understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

- Hide Question Text

**Quality Prediction**

**My Quality Prediction**

Reliability = 1 - random error  $r^2$  **0.662**

Validity = 1 - method effect  $v^2$  **0.977**

Quality = reliability ( $r^2$ ) x validity ( $v^2$ )  $q^2$  **0.646**

**Potential Improvements**

All Variables

Variable	Potential Max Quality by Change in Variable
Number of categories	0.679 + 0.03
Total number of words in request	0.675 + 0.03
Correspondence between labels and numbers of the scale	0.662 + 0.02
Knowledge provided	0.658 + 0.01
Neutral category	0.655 + 0.01
Request for an answer type	0.653 + 0.01
Number of subordinate clauses in request	0.652 + 0.01
Start of the response sentence on the visual aid	0.652 + 0.01
Don't know option	0.651 + 0.01
Total number of nouns in question	0.651 + 0.01
Presence of encouragement to answer	0.651 + 0.01
Labels of categories	0.651 + 0.01
Order of the labels	0.650
WH word used in the request	0.649

**Selected Variable**

Click on a variable on the left to see the potential change in the quality that could be produced by a different value for that variable.

Detailed information about the specific change to be made is obtained by clicking on the characteristic of interest (see [Screen 6.3](#)). Then, on the right hand side, users obtain the information for which aspect of this characteristic the largest improvement in quality of the question is available.

## Screen 6.3: Potential improvement suggestion

**Question**

**B2 / PolCmpl / Internal political efficacy , complicated**  
ESS Round 1 United Kingdom - English

**Request for Answer Text:**  
How often does politics seem so complicated that you can't really understand what is going on? Please use this card.

**Answer options:**

- Never
- Seldom
- Occasionally
- Regularly
- Frequently

- Hide Question Text

**Quality Prediction**

**My Quality Prediction**

Reliability = 1 - random error  $r^2$  **0.662**

Validity = 1 - method effect  $v^2$  **0.977**

Quality = reliability ( $r^2$ ) x validity ( $v^2$ )  $q^2$  **0.646**

**Potential Improvements**

All Variables

Variable	Potential Max Quality by Change in Variable
Number of categories	0.679 + 0.03
Total number of words in request	0.675 + 0.03
Correspondence between labels and numbers of the scale	0.662 + 0.02
Knowledge provided	0.658 + 0.01
Neutral category	0.655 + 0.01
Request for an answer type	0.653 + 0.01
Number of subordinate clauses in request	0.652 + 0.01
Start of the response sentence on the visual aid	0.652 + 0.01
Don't know option	0.651 + 0.01
Total number of nouns in question	0.651 + 0.01
Presence of encouragement to answer	0.651 + 0.01
Labels of categories	0.651 + 0.01
Order of the labels	0.650
WH word used in the request	0.649

**Selected Variable**

Number of categories (ncategories)

Current choice: 5

Choice	Average what if prediction
2	0.638 - 0.01
4	0.640 - 0.01
5	0.646
7	0.651 + 0.01
11	0.679 + 0.03

**Number of categories**

Enter the number of categories of the answer options. For example: SQP will provide a 'Suggested value' for this particular characteristic. In the example, the total number of categories is... [more >>](#)

The effects on the quality that SQP calculates are independent of other related changes that the tool suggests. This means that the effects presented do not take into account related characteristics that may also change due to the change being suggested. For instance, increasing or reducing the number of points in a scale may lead to other changes in the characteristics related to the answer options, such as the labels or the presence of a neutral category. These consequences are not immediately taken into account. Therefore, it makes sense to reformulate the question and test the new question in the same way as indicated above.