



User Manual

Elicitation Tool

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Risk Analysis**

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1. Introduction

The purpose of this document is to provide Elicitation Tool (ET) users with sufficient information to operate the system. There are three types of system users: Participants, Facilitators and Administrators. Participants respond to questions set by the facilitator. Administrators manage the database of elicitation data.

Participant instructions can be found in Section 2.

Facilitator instructions can be found in Sections 3 and 4.

Administrator instructions can be found in the separate ET—Administration Manual.

It is assumed that this software will be run in conjunction with a facilitated risk analysis workshop using the approach documented in the ET—Process Manual. The facilitator prepares for the workshop by entering their questions into ET. The facilitator leads workshop participants through a series of questions, where participants respond with a numerical estimate in the form of an interval. Each interval is elicited using a 4-step procedure that consists of:

Lowest estimate

Highest estimate

Best estimate

Confidence level the degree of confidence that the interval created contains the true value.

Whilst the beginning and end of the workshop may be tailored to meet the specific needs of the elicitation, the core of the workshop agenda will follow the outline below:

- Participants register / login into the system
- Participants answer each question as it is released by the facilitator:
 - Submit their initial estimate for the question
 - Wait for facilitator to release the group responses
 - Review and discuss group responses
 - Adjust estimates (if required) and submit their final estimate

1.1. Conventions

The following typographical conventions are followed in this manual:

Screens names are highlighted using *italic* text.

Buttons and clickable icons are highlighted using **bold** text.

Key concepts are highlighted using underlined text.

1.2. Feedback on this document

Please forward any suggestions or feedback regarding this document to Andrew Speirs-Bridge speirs@unimelb.edu

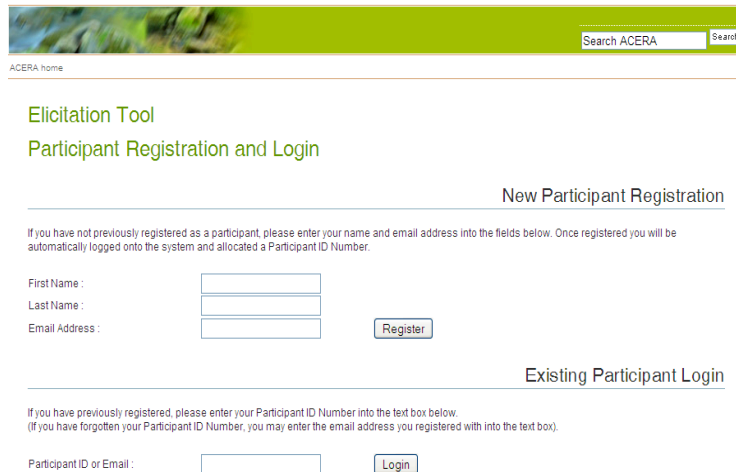
2. Getting Started—Participant

2.1. Logging In

To log into the system, direct your Internet browser to:

http://www.acera.unimelb.edu.au/elicitation_tool.html

If you are using the system for the first time, enter your first name, last name and email under ‘New Participant Registration’ and click the **Register** button.



ACERA home

Search ACERA Search

Elicitation Tool
Participant Registration and Login

New Participant Registration

If you have not previously registered as a participant, please enter your name and email address into the fields below. Once registered you will be automatically logged onto the system and allocated a Participant ID Number.

First Name :
Last Name :
Email Address :

Register

Existing Participant Login

If you have previously registered, please enter your Participant ID Number into the text box below.
(If you have forgotten your Participant ID Number, you may enter the email address you registered with into the text box).

Participant ID or Email :

Login

Login screen

If you have already registered, type your Participant ID or email address under ‘Existing Participant Login’ and click the **Login** button.

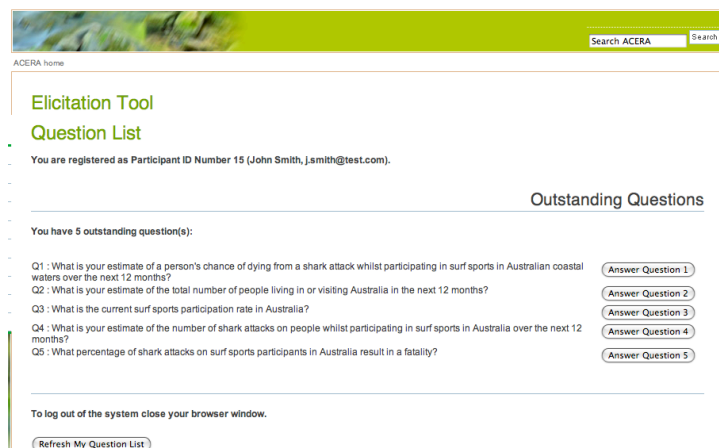
Once logged in, you will be taken to your *Outstanding Questions* screen. This lists all the questions the facilitator has currently released.

To log out of the system at any time, simply close the browser window.

2.2. Answering a Question

The facilitator can control how many questions are released at any one time. For this reason there may be zero or more questions displayed on your *Outstanding Questions* screen when you log in.

To answer a question, click the **Answer Question** button to the right of the question text. This will take you to the *Answer Question* screen.



ACERA home

Search ACERA Search

Elicitation Tool
Question List

You are registered as Participant ID Number 15 (John Smith, j.smith@test.com).

Outstanding Questions

You have 5 outstanding question(s):

Q1 : What is your estimate of a person's chance of dying from a shark attack whilst participating in surf sports in Australian coastal waters over the next 12 months?

Q2 : What is your estimate of the total number of people living in or visiting Australia in the next 12 months?

Q3 : What is the current surf sports participation rate in Australia?

Q4 : What is your estimate of the number of shark attacks on people whilst participating in surf sports in Australia over the next 12 months?

Q5 : What percentage of shark attacks on surf sports participants in Australia result in a fatality?

To log out of the system close your browser window.

Question List screen

ACERA home

Search ACERA Search

Elicitation Tool

Question 1: What percentage of the Australian population is female?

- Please enter your estimates in units of % of Population.
- Use a minimum value of 30.
- Use a maximum value of 70.

Realistically what do you think the lowest value is?

Realistically what do you think the highest value is?

Realistically what is your best estimate?

How confident are you that your interval from lowest to highest, could capture the values?

Please enter a number between 50 and 100%

Show Interval Again

Click the 'Accept interval' button when you are ready to save your values

Accept Interval

Question Details

% of Population

30.0 70.0

80% Interval

Your Interval

Answer Question screen showing as the estimates as intervals

The *Answer Question* screen allows you to enter your lowest, highest and best estimates for the question, as well as your confidence in your answer.

Once you have entered your responses into the four text fields, click the **Show Interval** button. This will display your response as an interval relative to a numerical scale, as well as showing your interval converted to an 80% confidence level.

If you wish to modify any of your estimates, simply re-enter the values in the appropriate text fields and click

the **Show Interval Again** button. The interval display will be updated to reflect your changes. When you are happy with your interval estimate, click the **Accept Interval** button.

2.3. Finalising Your Answer

If the facilitator has released the results for the question, you will be taken immediately to the *Group Response* screen. Otherwise, you will be taken to the *Pause screen* and will have to wait for the facilitator's instructions to proceed. Click the **View Group Results** button to proceed to the *Group Response screen*.

On the *Group Response* screen you will see your interval estimate for the question (identified by your Participant ID), as well as the interval estimates of the other participants. There are four different types of intervals that can be displayed, and each of which is displayed using a different colour:

Yellow intervals indicate initial estimates. Initial estimates are responses made at the first *Answer Question* screen that have yet to be finalised.

Green intervals indicate final estimates. Final estimates are responses that have been finalised on the *Group Response* screen.

Orange intervals indicate re-visited estimates. Re-visited estimates are responses that the facilitator has asked participants to review.

The black interval represents the average of all participants currently displayed.

ACERA home

Search ACERA Search

Elicitation Tool

View Question Results

You are registered as Participant ID Number 5 (John Smith, example@example.com).

View Results for Question 11

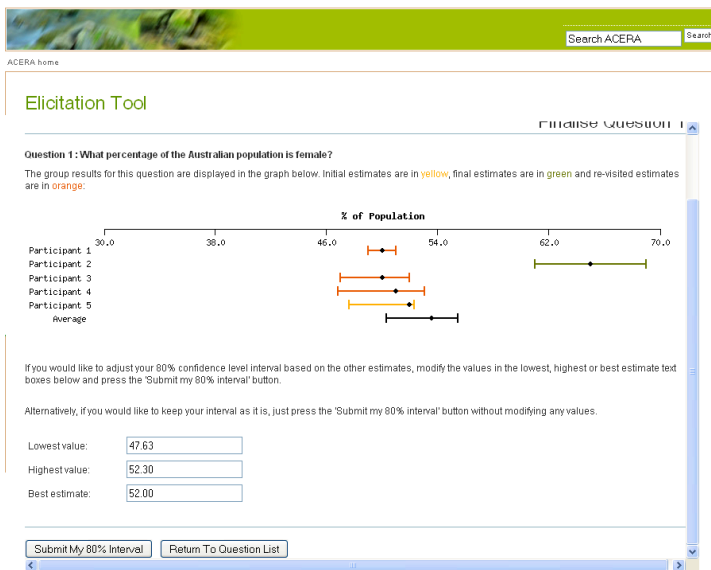
Question 11: How many people die each year from car accidents in Australia?

Please wait for the facilitator before continuing.

When instructed to, press the 'View group results' button below to view the group results for this question. Otherwise press the 'Return to question list' button to return to the question list.

View Group Results Return To Question List

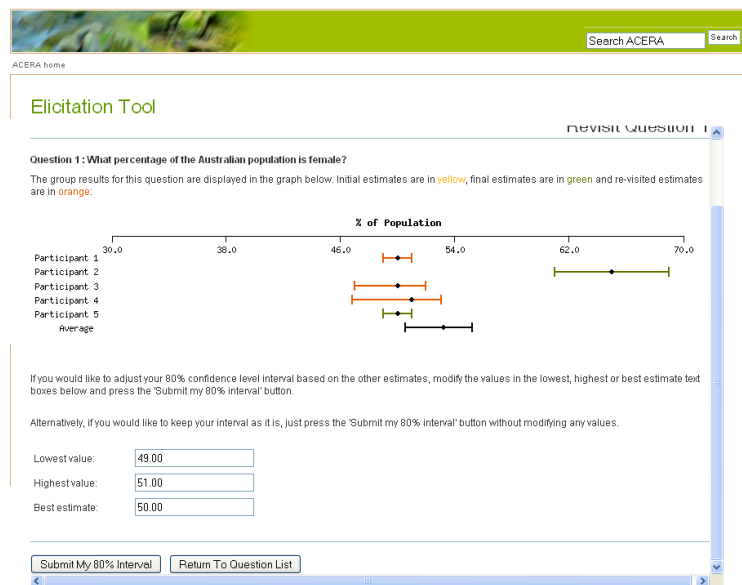
Pause Screen



Group Response screen before finalising a question

2.4. Revisiting a Question

Sometimes the facilitator may ask you to review a previously finalised question. In this case the question will reappear in your *Outstanding Questions* list with a **Revisit Question** button. On clicking this button you will be taken back to the *Group Response* screen where you can adjust your interval in the same way as you did when finalising your response. Once you have submitted a response (by clicking on the **Submit My 80% Interval** button) the question will be removed from your Outstanding Questions list and you will be unable to modify your estimate again.



Group Response screen for revisiting a question

3. Getting Started—Facilitator

3.1. Logging In

To log into the system, direct your Internet browser to:

http://www.acera.unimelb.edu.au/elicitation_tool.html

To log in as a facilitator, enter the following details in the New Participant Registration and click the **Register** button:

First Name: *facilitator*

Last Name: *login*

Email Address:

markab@unimelb.edu.au

You will then be taken to the *Question Bank* screen. This screen

Facilitator Login

lists the currently created questions and allows you to add new questions, manage existing questions and export data.

Question Bank

The main section of the screen lists current questions, including question ID, description, state and release.

The release column will display different buttons depending on the state of the question. The state can be one of four different values:

Initial—the question has not yet been released to participants. Clicking the **Release** button will make the question appear on the participant's *Outstanding Questions* list.

Released—the question has been released to participants for the first time. Once released, a question can no longer be edited.

Results—the question has been answered and finalised. Press the **Revisit Question** button to allow participants to re-visit the question to change their previous answers.

Re-visited—the question has been re-released to participants.

3.2. Adding a New Question

Add Question screen

To create a new question, click the **Add New Question** button. This will take you to the *Add Question* screen. From here you can set all of the necessary values for a question. Each text field is described below:

Description—the question (for example, ‘What is the distance from Melbourne to Darwin?’)

Units—the units the participant’s response should be in. This is

useful for questions that may have more than one unit of measurement, for example, you could specify the above question in kilometres or miles. Also note that the text should all be in lower case, as it is appended to, “Please enter your estimates in units of” on the *Answer Question* screen.

Minimum value —the smallest value the user can input and the value that will appear on the left of the scale.

Maximum value —the largest value the user can input and the value that will appear on the right of the scale.

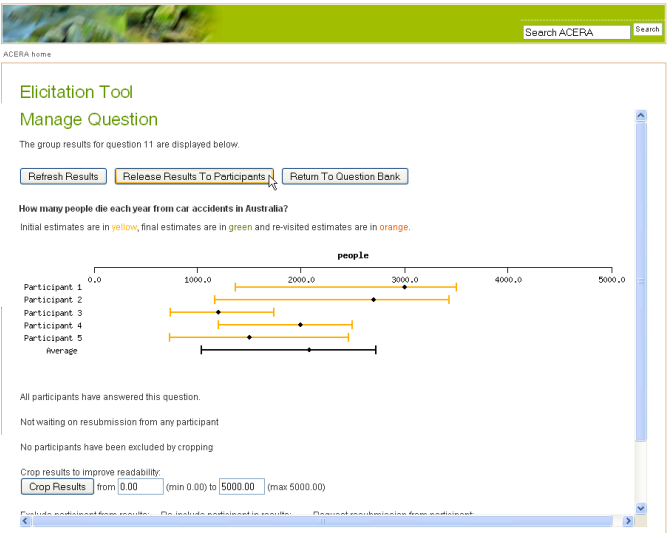
True Value—entering the true value allows the facilitator to see the true value on the results graph as a vertical black line. The participants cannot see the true value on their results graph.

Once you are finished, click the **Save** button to save the question and return to the *Question Bank* screen. Clicking **Cancel** will return you to the *Question Bank* screen without adding the question to the list.

Once you have added a new question, it will appear on the *Question Bank* screen with the Initial state. If you wish to change the question in any way, click the Edit button. However, once the **Release** button is clicked, the question can no longer be changed.

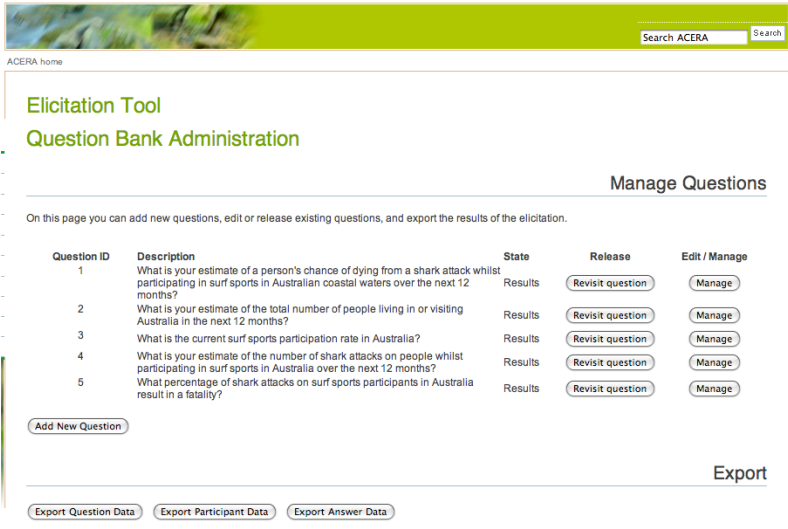
3.3. Releasing Results

Once participants have provided their initial estimates for a question, the results can be released to the participants¹. To do this, click the **Manage** button for the question. You will be taken to the *Manage Question* screen, where you will be able to view the participant’s initial estimates of the question, as well as release the question’s results and perform other actions. To release the results, click the **Release Results to Participants** button. The participants will now be able to view the estimates of the other participants on their *Group Response* screen. The participants can then discuss their responses, adjust them if necessary, and finalise their estimate for the question.



Releasing results to participants

3.4. Revisiting Questions



Allowing a question to be revisited

Once a participant has finalised their estimate for a question, it will be removed from the participant’s *Outstanding Questions* screen. As the facilitator, you can give the participant one more chance to change their answer by clicking the **Revisit question** button.

Doing so will make the question re-appear on the participant’s *Outstanding Questions* screen. The participant will then be able to change their previous estimate. After submitting a re-

¹ The facilitator may choose to release the results to the participants before all responses have been received. This is to accommodate situations where participants are temporarily unavailable and the facilitator does not want to hold up the workshop.

4. Advanced Results Display—Facilitator

4.1. Managing Questions

The facilitator has access to a number of advanced features, available from the *Manage Question* screen. These features include providing status information on participants, as well as the ability to manipulate the display of the results.

Below the interval graph on the *Manage Question* screen are five lines of text that give status information about the participants:

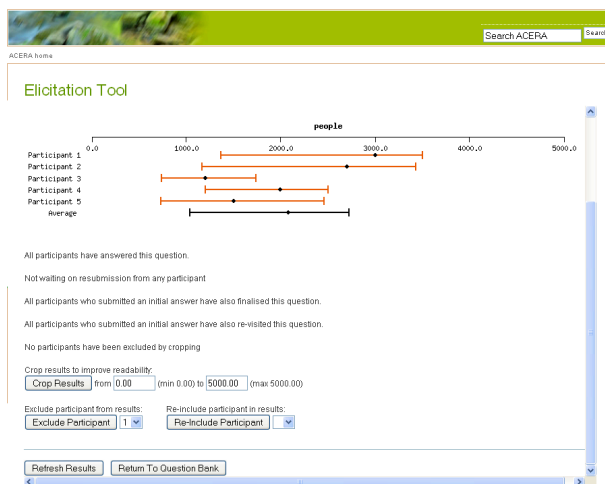
Line 1—which participants have yet to answer the question

Line 2—which participants have yet to resubmit a response

Line 3—which participants have submitted an initial answer but have yet to finalise their response

Line 4—which participants have yet to submit a revisited response

Line 5—shows if any participants have been excluded due to cropping



Advanced features on the Manage Question screen

select the participant ID from the drop down menu, and click the **Re-Include Participant** button. The participant's results will be redisplayed on the interval display and the average interval updated.

Show / Hide True Value—this button appears if a True Value was entered when the question was created. Click **Show True Value** to display a vertical black line on the interval display that is positioned on the true value. Click **Hide True Value** to hide it. Note that the participants cannot see the true value on their screens, only the facilitator.

Request Resubmission—this option appears before the results are released to the participants. If a participant makes a mistake when giving their initial estimates, select their ID from the drop down list and click **Request Resubmission**. The question will reappear on the participant's *Outstanding Questions* screen. The option disappears once the **Release Results To Participants** button is clicked.

Note that changes to the interval display on the *Manage Question* screen do not change the data stored in the system.

There are four advanced functions that can be performed:

Cropping—you can crop the interval display for the question by reducing the maximum value and/or increasing the minimum value. Type the new values into the appropriate text fields and click the **Crop Results** button.

Exclude Participant—Select the participant's ID from the drop down menu and click the **Exclude Participant** button. The excluded participant's interval will no longer be shown on the interval display, and the average interval will be updated. To re-include a participant

4.2. Exporting Data

From the *Question Bank* screen, the facilitator can export three different types of data by clicking the appropriate **Export Data** button at the bottom of the screen. All data is exported in CSV (Comma Separated Values) format and can be opened using software such as MS Excel. The three types of data that can be exported are:

Question Data—lists all the questions currently in the question bank

Participant Data—lists all the participants that have registered

Answer Data—lists each participant's responses for each question

Sample formats for each of the different data types are shown below:

Question Data Format

Question No.	Question Text	Units	Min Value	Max Value	True Value	State
1	What percentage of the Australian population is female?	% of Population	30	70	50.31	re-visited
2	How many kilometres of coastline does Australia have? Including the ten largest islands.	km	10000	90000	47070	released
3	In what year did Kevin Rudd (the current Prime Minister of Australia) enter Federal parliament?	Year in YYYY Format	1980	2008	1998	results

Participant Data Format

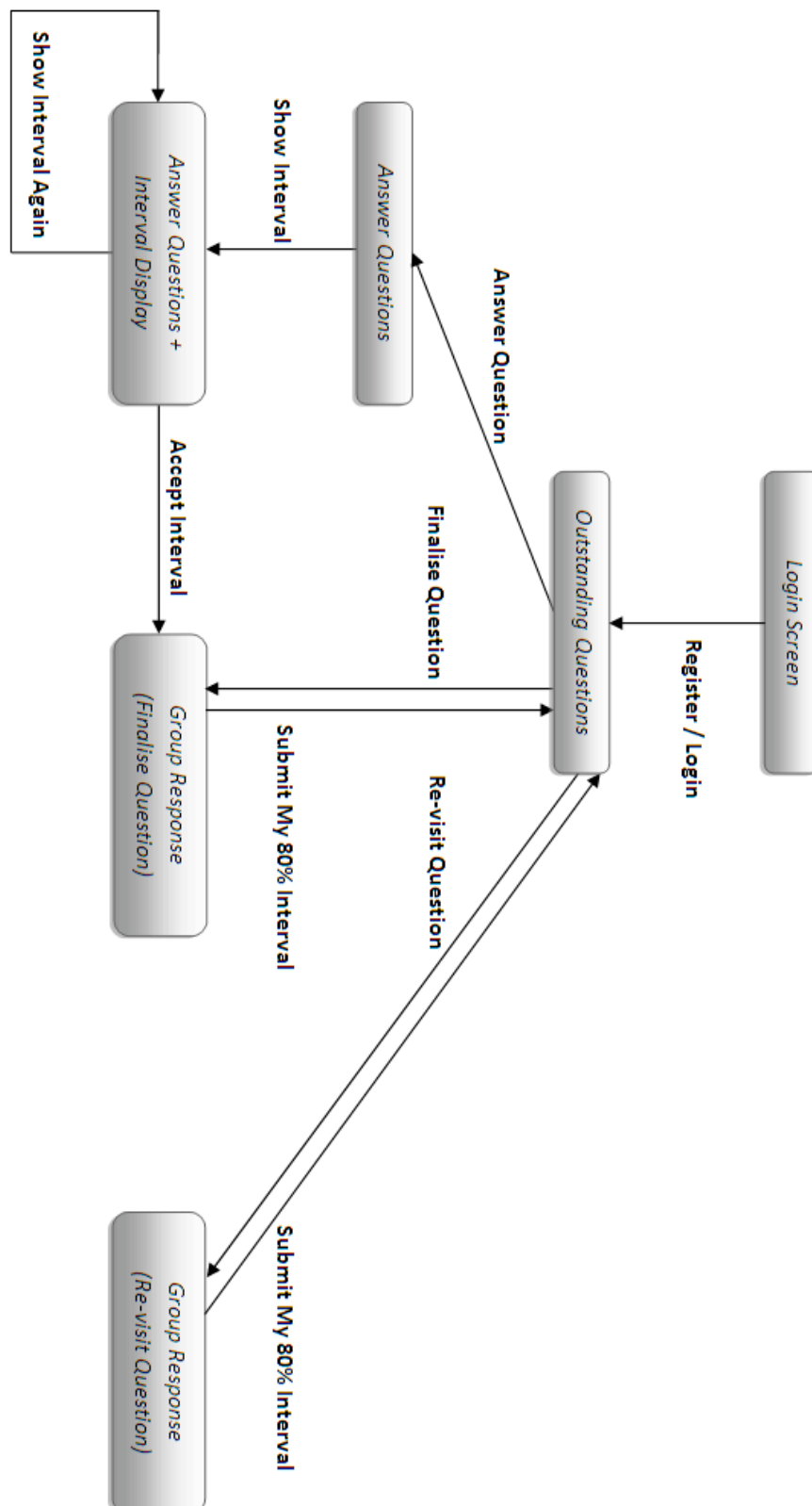
ID	First name	Surname	Email
1	John	Smith	example@example.com
2	Jane	Jones	j.doe@example.com
3	Michael	Williams	jwilliams@example.com

Answer Data Format

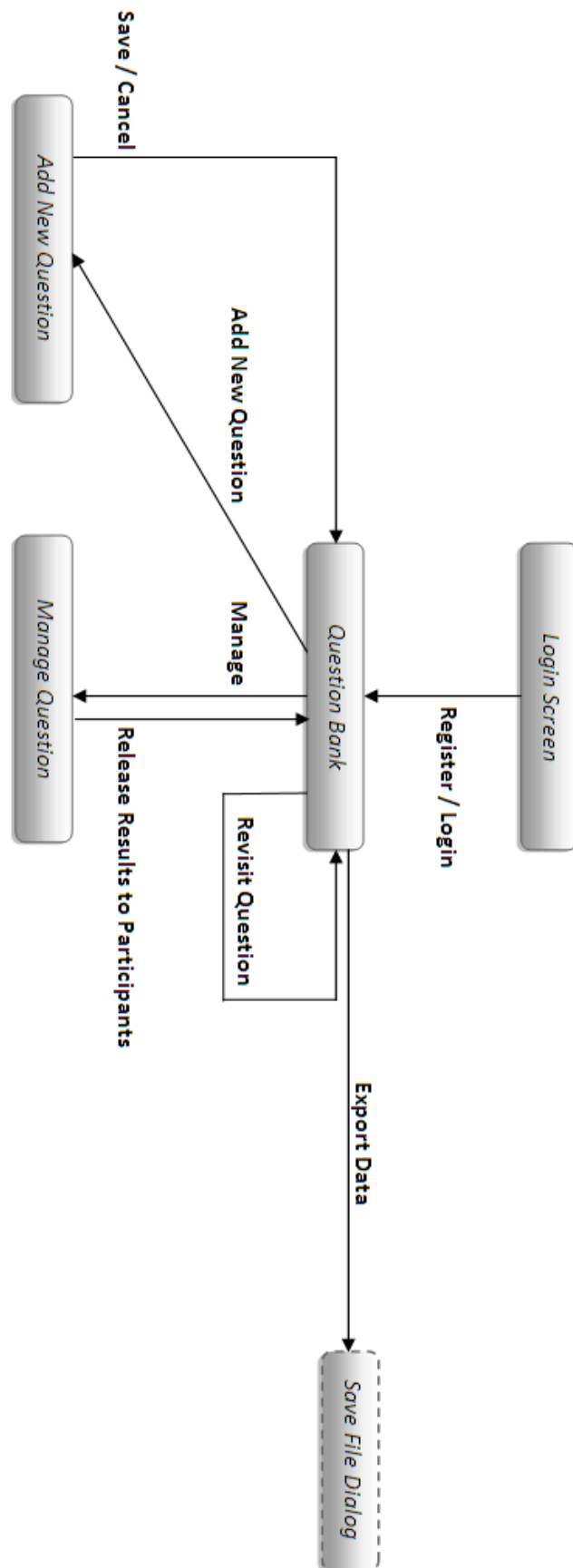
Q ID	P ID	Low 1	High 1	Est 1	Conf	Low 2	High 2	Est 2	Low 3	High 3	Est 3	Attempts
1	1	49	51	50	60	48.4	51.5	50	49	51	50	1
1	2	60	70	65	90	61	69	65				1
1	3	49	51	50	100	46	53	50	47	52	50	5
2	1	15000	70000	50000	60	10033.4	90000	50000	10033.4	90000	50000	1
2	2	15000	50000	45000	60	10954.6	68462.8	45000	10954.6	68462.8	45000	1

5. Appendix—System Flowcharts

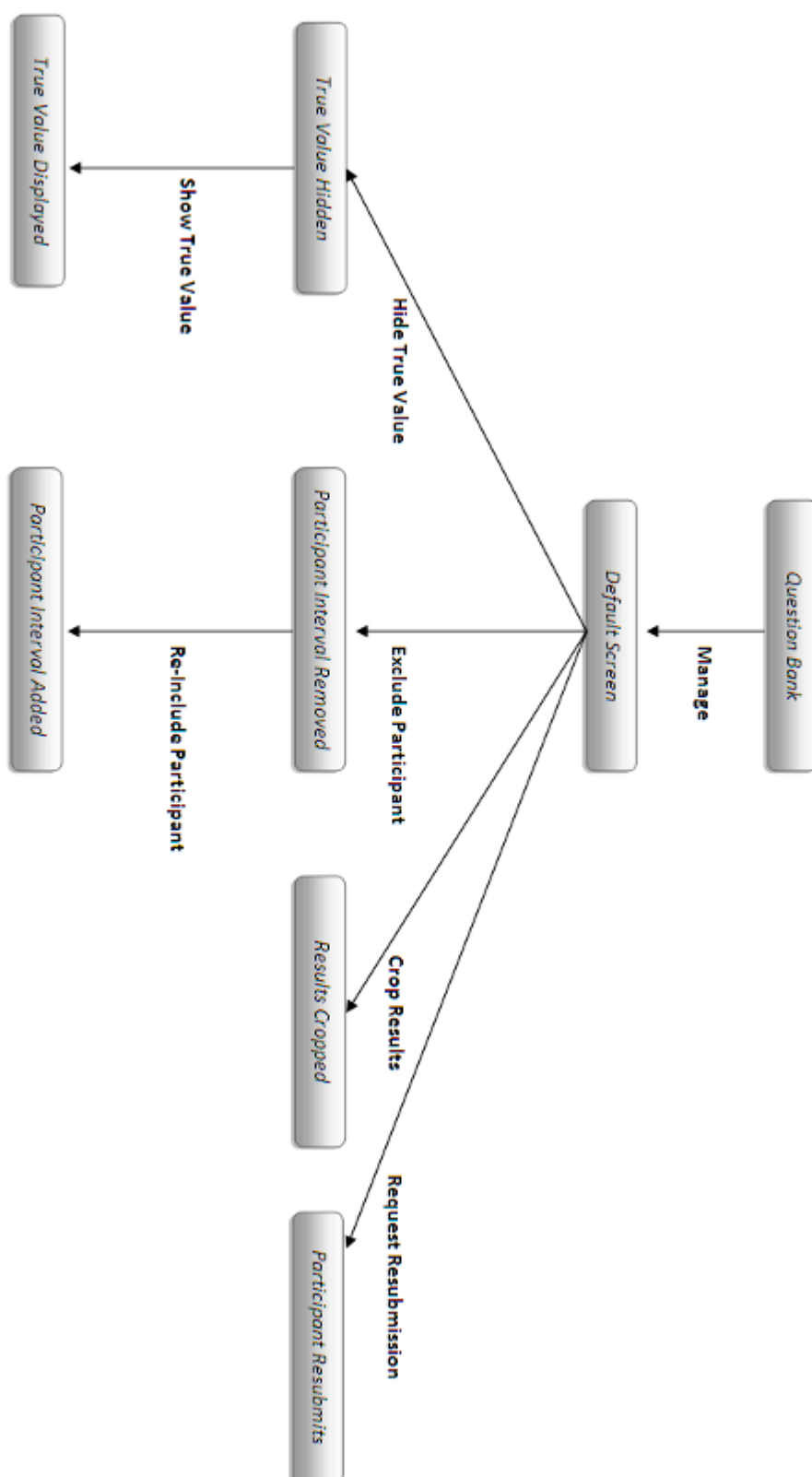
5.1. Participant Functionality Flowchart



5.2. *Facilitator Functionality Flowchart—Top Level*



5.3. *Facilitator Functionality Flowchart—Manage Question*



6. Appendix—ET Documentation

To ensure that the documents can be appropriately targeted to their respective audiences, the following document suite has been produced for ET.

User Manual—this document is targeted at participants and facilitators, and explains how to use the native functionality of ET.

Process Manual—this document is targeted at facilitators (and to a lesser extent domain experts), and explains how to prepare for, run, and interpret the results of an elicitation.

Administration Manual—this document is targeted at system administrators, and explains how to manage, import and export data from the ET database.

Requirements Documents—this document is targeted at system developer, and specifies the ET system requirements.

Excel ET—this is an Excel spreadsheet that can be used to collect the elicitation responses from remote participants. This spreadsheet is prepared by a facilitator and distributed to participants as an off-line questionnaire via email. These responses can then be imported into the ET database to assist with data aggregation and visualisation.