

# Music and Science, MUSI2731, Durham University

## A Guide to Qualtrics

Version 7/12/2022

Tuomas Eerola, Annaliese Micallef Grimaud & Thomas Magnus Lennie

### Contents

<b>1 Introduction .....</b>	<b>2</b>
<b>2 The Basics: General Environment.....</b>	<b>3</b>
<b>3 Building a Survey.....</b>	<b>7</b>
3.1 Blocks .....	7
3.2 Questions & Question Types .....	7
3.2.1 Multiple choice questions .....	7
3.2.2 Matrix tables .....	8
3.2.3 Text entry .....	9
<b>4 Adding Multimedia Content .....</b>	<b>10</b>
4.1 Embedding Audio from SoundCloud using Source Code .....	10
4.2 Embedding Video from YouTube using Source Code.....	12
4.3 Inserting Media from Library .....	13
<b>5 Survey Logic .....</b>	<b>15</b>
5.1 How to set question logic (if statements) .....	15
5.2 Randomise question presentation .....	15
5.2.1 Randomisation of blocks .....	15
5.2.2 Randomisation of questions within a block .....	16
<b>6 Publishing the survey and collecting responses .....</b>	<b>17</b>
<b>7 Conclusions .....</b>	<b>18</b>

# 1 Introduction

The aim of this guide is to introduce you to Qualtrics, an online survey platform, utilised to collect quantitative data. Quantitative data is information about quantities, and therefore focusses on gathering numerical data which can be measured (Babbie, 2010). One way to collect quantitative data is via online surveys, and this is where Qualtrics comes in.

Qualtrics is a commercial online platform, however, we have a departmental license for Qualtrics which can be utilised for your projects involving online data collection. These are the credentials for your perusal:

Login page: <https://durhammusic.eu.qualtrics.com/>

Username: ug.musicsurveys@durham.ac.uk

Password: undergraduate

It is **important** that you keep the account credentials safe and do not share them with anyone unless specifically authorised by the Music Department staff. As the Qualtrics account is shared, kindly make note to create your survey in your designated folder – in Projects, find the *Music and Science Module 2022/23* folder and select your folder depending on your group number (e.g., Group 1) and create your survey within the folder. It is very important that you do not open other users' surveys.

You should also share your survey with the staff Qualtrics account at [music-science.lab@durham.ac.uk](mailto:music-science.lab@durham.ac.uk) (this provides a backup copy of your work in Qualtrics, and also allows your module leader or supervisor to access to the survey if needed). This can be done through the 'Tools' menu by selecting 'Collaborate'. Enter the email address above and tick all the boxes (Edit, View Reports, etc.) to enable full sharing options.

Please ensure that you have obtained relevant Ethical Approval before you start any data collection from participants on Qualtrics for your project. This is not required for any experimental project related to this module (for which a blanket ethical approval has already been obtained), but it may apply to your dissertation projects.

This document will serve purely as a set of guidelines for working with Qualtrics specifically; for information about quantitative data collection in general, as well as analysis, please see the following reading material:

Windsor, L. W. (2004). Data collection, Experimental Design, and Statistics in Musical Research: In Clarke, E. & Cook, N. *Empirical Musicology: Aims, Methods, Prospects*. Oxford, UK: Oxford University Press.

## 2 The Basics: General Environment

To begin, we start with the basic environment of Qualtrics. To get to this point, we first have to access Qualtrics by going to [www.qualtrics.com](http://www.qualtrics.com) and log in via your account credentials and password, provided by the module leader and/or teacher(s). On the bottom left hand-side there is a 'create a new project' button. Click this, and then select 'survey' underneath the heading 'from scratch' and press 'get started'. You will then be asked to give a **name** to your project (give it a sensible, recognisable name such as "Group1memory"). Then choose the **folder** where this project will be saved. Find folder called "Music and Science 2022-23" and your own group within it, and choose it. Finally, you can specify a template for your project which makes starting easy, so choose "Copy a survey from an existing project", and Search for the word "template" and choose "Music & Science Template". Hit "Create project" and you are good to start exploring this new survey.

### Create a new project

Survey

Name  
Group1Memory

Folder  
Group 1

How do you want to start your survey?  
Copy a survey from an existing project

Survey  
Music & Science Template

Create project

Cancel

for your project which

Figure 1. Create new project dialog.

Now you will have a survey of your open in a survey editing environment (Figure 2).

XM Music & Science Seminar 4 Survey Template

Survey Workflows Distributions Data & Analysis Reports

Tools Saved at 4:22 PM Draft

Music & Science Seminar 4 Survey Template

IQ Score: Great

Default Question Block

Q1

Click to write the question text

Click to write Choice 1

Click to write Choice 2

Click to write Choice 3

Import from library Add new question

Add Block

End of Survey

We thank you for your time spent taking this survey.

Your response has been recorded.

Trash 0 Questions

Empty trash

Figure 2. General view of a project.

There are multiple tabs in the general environment of Qualtrics, and we will go over them one-by-one. Different aspects of the Qualtrics environment are numbered in Figure 1, and an overview of each one will be given below.

1. **There are five tabs in the [element 1](#): Survey, Workflows, Distributions, Data & Analysis, and Reports.**
  - a. **Survey:** This is where we can build our survey, makes changes to it, preview it, and publish it.
  - b. **Workflows:** This tab allows you to set up tasks/actions in relation to your survey responses, for example, setting up a condition where if a respondent answers yes to a particular question in the survey, it will trigger the survey to send an email to the participant (or other actions).
  - c. **Distributions:** This provides you with methods to share your survey with participants, such as via email, anonymous links, social media etc.
  - d. **Data & Analysis:** Here we can take a look at some of the response data, filter out specific responses, and export data to a file for use in further analysis software.
  - e. **Reports:** Here we can see participant response details of different questions, such as how many people answered a particular question.
2. **The five icons highlighted in [the element 2](#) under the Survey tab pertain to the structure of the survey.**
  - a. **Builder:** This is the tab where you create your survey, by choosing the question type, adding questions, etc.
  - b. **Survey Flow:** This is a high-level visualisation of the sequence of different sections (blocks) of the survey. Here, different sections of the survey can be re-ordered, and conditional statements/question logic (e.g., if respondents answered 'yes' to a particular question, they will be led to another question linked to the previous one, while respondents who answered 'no' wouldn't) can be viewed.
  - c. **Look & Feel:** Alterations of the survey's aesthetic properties can be done here, such as choosing a particular theme, layout, adding a progress bar, text size, colours, and button shapes, etc.
  - d. **Survey Options:** Various settings of the survey can be tweaked from here, such as survey language, if a survey can be saved and completed later by a respondent, choosing if the survey will be open to anyone or by invitation only, whether participants can go back to previous questions and change their responses, etc.
  - e. **Translations:** This gives options to have the same survey in different languages (including all menus, buttons, etc.)

Another sub-menu under the Survey tab can be accessed from the **Tools** button, pictured above section 4 in Figure 1. Numerous functions such as importing a pre-existing survey, or exporting the current survey as a word document, and auto-numbering questions can be accessed via the drop-down menu from the Tools

button.

3. **Question design:** This menu becomes visible when you click one of the questions.

Here you can change the design and type of your question, such as:

- a. **Change Question Type:** choose between numerous types of questions, such as multiple choice, text entry, rank order, matrix table, sliders, descriptive text, inserting a graphic as part of a question, and so on. Depending on your question type, different options will then come up. If a multiple-choice question is selected, you'll then have to decide on how many answers there will be to choose from. You will also have to select how many answers respondents are allowed to give; one single answer, or multiple answers.
  - b. **Response requirements:** You can decide whether respondents have to answer a particular question before moving on to another question/page in the survey. To do this, you can tick the 'Force Response' option which comes up when you select 'add requirements'. This does not allow respondents to move on in the survey if they do not reply to the forced-response question(s). You can also 'request response' from participants, which alerts the participants if they do not provide an answer to a question. However, this option will allow the participant to continue the survey even if they do not provide an answer.
4. **This is the Survey/Project title**, which can be edited at any time.
  5. **Question design area.**

This is the first question that Qualtrics automatically creates in a new project, which is a multiple choice question type. Changes to your question design can be made utilising the sidebar menu on the right, which is numbered **3** in this list. If you press on the three dots on the right-hand side of the question, you can access other function such as copying the question, moving the question to a different place, deleting the question, adding a note about a question for your own benefit, which will not be displayed to the participants, add a page break which is a setting that makes questions after a page break viewed on a separate page (this can be useful for controlling the speed of the experiment i.e., how many questions before the participant clicks 'next'/'continue'), and previewing the questions in their block (the section in which they questions are in), to name a few.

If you scroll down in the left-hand side of a question, more options will show up in the **Question design** area, pertaining to **Question behaviour** (Figure 2).

## ▼ Question behavior

🔗 Display logic

🔗 Skip logic

🔗 Carry forward choices

🔗 Choice randomization

🔗 Recode values

🔗 Default choices

Figure 3. Question behaviour options.

**Display Logic:** Adding conditions to a particular question, such as question will only be displayed if a particular answer in a previous question is selected.

**Skip Logic:** Same as display logic, but instead, a question will be skipped if a particular answer in a previous question is selected.

**Carry forward choices:** This setting allows you to carry forward answers chosen by a participant to another question.

**Choice randomisation:** You can randomise how the possible answers/choices to a particular question will be displayed to the participants.

**Recode values:** This setting allows you to change the name/number of the questions. When you add a question to your survey, Qualtrics automatically gives it a name e.g., Q1. In recode values, you can recode the question number/name.

**Default choices:** You can present the participants with a default answer which they can change.

In the following sections, we will focus on how to build a survey, utilising different question types and response formats, and how to create a basic 'survey flow' and survey previews (to check that everything works and is displayed correctly to the respondent).

## 3 Building a Survey

### 3.1 Blocks

Qualtrics organises the main sections of your survey in terms of 'Blocks'; blocks are essentially structural markers in your experiment (you may think about them as different sections which groups questions of your choosing together). This is particularly useful for allowing you to organise how the survey will be presented. We may, for example, ask participants to listen to a piece of music, and then rate it afterwards; to avoid a scenario where the rating scales are presented alongside the music and not afterwards, we may use pages to distinguish between these sections or steps in the survey, so the first page involves the music, and the second contains the rating scales. Blocks also provide structural anchor points that we can send participants to, depending on their answers to certain questions (i.e., survey flow). To add a block, you simply click 'add block' at the bottom of the last question in a section. It is advisable to name each block to allow for simpler survey flow organising and to easily distinguish between the contents of the blocks e.g., *Demographics questions, Practice trial, Info sheet + Consent* blocks (more on this later).

### 3.2 Questions & Question Types

Now that we can create new blocks, the next step is to think about which questions should be added to each block. Questions types are essentially the rating scales, adjective lists, or broad questions posited to the participants, which may involve closed/open ended responses, numerical or written responses, and other kinds. **To add a question simply click on the 'Add new question' button or hover over the default question provided and click the '+' sign either above or below the existing question.**

Questionnaires need to be communicated clearly to participants, especially to ensure they are not dissuaded from taking part. You can also add an item called 'text/graphic', which will be displayed to participants on the screen and does not require a response; descriptive text may be particularly applicable in circumstances such as providing participants with information about the project before you start, or a debrief at the end (i.e., does not require a response). Alternatively, you can also add a graphic.

The main aspect we need to consider here is the variety of questions we can build. There are multiple question types that can be built, ranging from multiple choice questions, free text questions (think qualitative), and rating scale questions (for a visualisation of some broad question categories). We will explore the most commonly used question formats next. Questions can be randomised both within blocks, as well as, randomising the presentation of the blocks themselves (more on this in section 5). To see how to change the question type see section 2.3.a.

#### 3.2.1 Multiple choice questions

The first broad category of items is multiple choice questions; these are normally suitable when we are asking participants to select from a series of discrete categorical labels or

adjectives, such as asking someone to categorise a piece of music in terms of genre (e.g., Rock, Blues, Jazz, Classical...). Additionally, there are numerous categorical variables often included in demographic sections of questionnaires, such as sex, gender, and sometimes musicianship status.

After selecting the multiple-choice question type, you will have several customising options available to you (explained below). First, you will need to write the question. Simply, click on the text to replace it with your own. When you have customised your response format you can then add the label names in the appropriate places.

#### **a) Answer type**

You can choose whether participants can select single or multiple answers. Participants can also be asked to place choices in rank order by using the 'Rank Order' question type, under standard questions.

#### **b) Choices**

This allows you to choose the number of possible answers available.

#### **c) Format**

You can choose how the answers are presented to the participant e.g., in list format or as a dropdown menu, with vertical or horizontal alignment, or in a column.

#### **d) Response requirement**

This allows you to set-up a forced response that will require participants to answer before moving on to the next question.

### **3.2.2 Matrix tables**

These are typically used to collect Likert scale type responses, although, multiple alternatives are available under the 'Matrix Type' option including bipolar and text entry answer formats. A matrix table additionally allows you to measure the same scale for multiple variables (e.g., a Likert scales for several different emotion categories). On the left hand side, you can edit the number of statements (i.e., items to be rated) as well as the number of scale points your rating scales will have.

☐ Q3
 iQ

Please rate how strongly each emotion is conveyed (1 = not at all, 5 = extremely).

	1	2	3	4	5
Joy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sadness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 4. An example of a question with Likert scales for responses.



**Important:** If you are collecting responses in a Likert format (e.g., 1-7) you *must* make sure single answer is selected under 'answer type'.

### **3.2.3 Text entry**

For some questionnaires, allowing for open-ended free text responses can be valuable additions to the overall research questions and analysis strategies later down the line. Single-line, multi-line and essay length responses can be collected with a customisable minimum and maximum character length. Single line text responses are actually quite common to use for collecting data on things like a name, occupation, or other demographic information; of course, qualitative approaches can strongly utilise these kinds of items as well. However, there are methodological distinctions to consider between what free response data is obtained through a questionnaire, compared with things like semi-structured interviews.

## 4 Adding Multimedia Content

You might ask participants to listen to music or watch a video, and then answer questions related to the multimedia content displayed. Although Qualtrics supports the uploading of most audio and video files, viewing them in the survey could be problematic, depending on web browsers being utilised by the participants. To eliminate any viewing problems related to multimedia content, Qualtrics recommends uploading videos and audio to be used on services such as YouTube or SoundCloud, and then embedding these in Qualtrics. The following sections will explain how this is done.

### 4.1 Embedding Audio from SoundCloud using Source Code

The good thing about SoundCloud ([www.soundcloud.com](http://www.soundcloud.com)) is that you can create a free account, which includes a number of free minutes of audio files that can be uploaded. In SoundCloud, after you upload the desired audio file, click on the 'Share' button, and select 'Embed' (Figure 4). Here, you can select whether you want the track to **automatically play** when presented to the respondent. After you decide to select automatic play or not, select all the code displayed, and copy it via a normal copy command (Ctrl/Cmd + C), and then go back to Qualtrics.

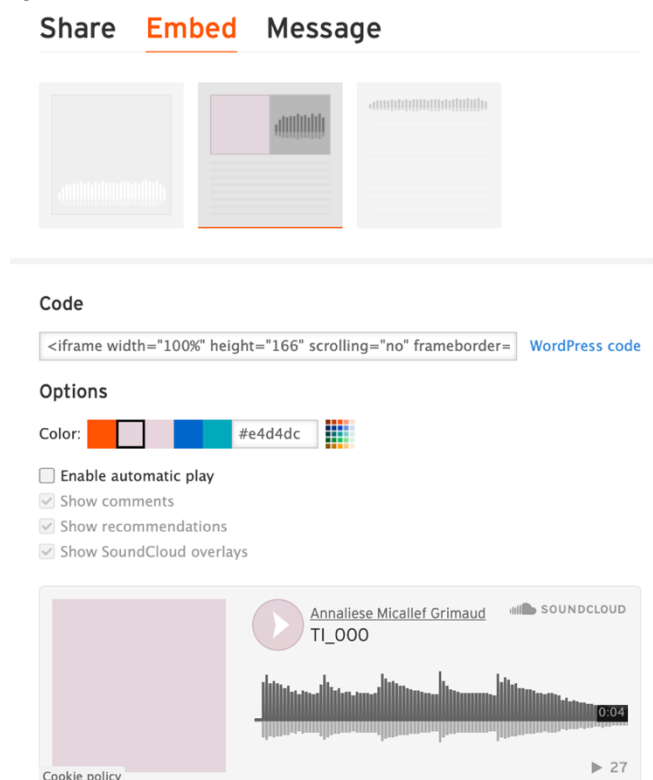


Figure 5. Copying embedding code from SoundCloud.

In Qualtrics, proceed with the following steps:

1. Click the question text where you'd like to insert the audio file. Click on the **Rich Content Editor** (Figure 6).

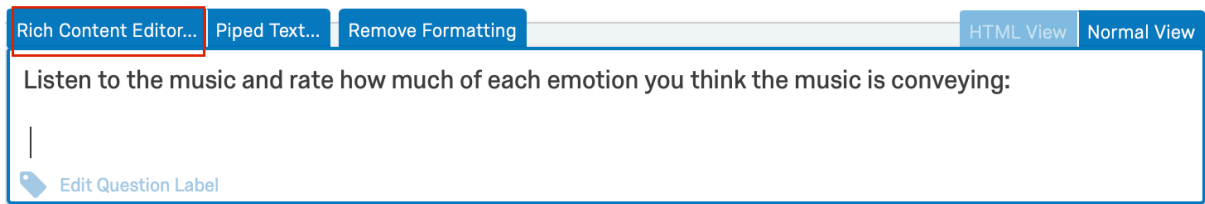


Figure 6. Click on Rich Content Editor.

2. You will then be presented with different options for the text. Press on the **Source Code icon** (Figure 7).



Listen to the music and rate how much of each emotion you think the music is conveying:

Figure 7. Click Source Code icon.

3. Paste in your embedded code (Figure 8).

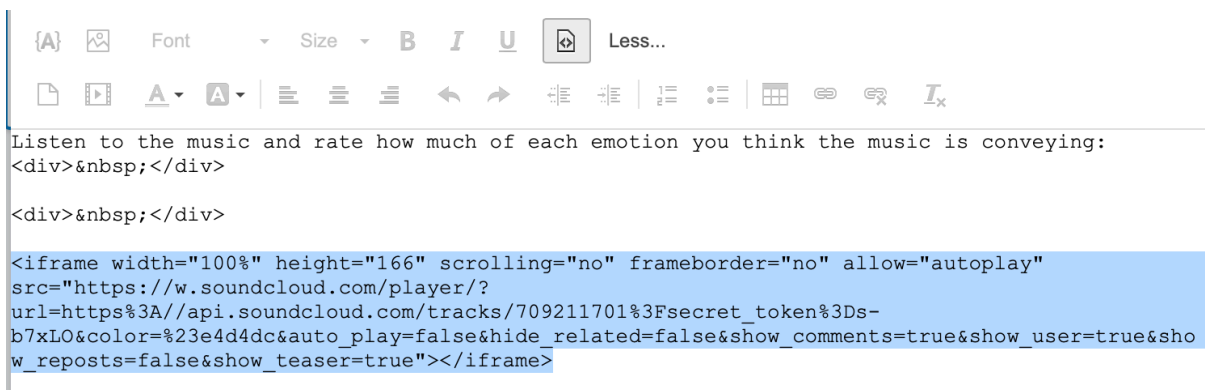



Figure 8. Paste the embedded code.

- Click outside of the text entry box, and the question should return to its normal layout, now encompassing your SoundCloud audio file (Figure 9).

Q2 iQ

Listen to the music and rate how much of each emotion you think the music is conveying (1 = none at all, 5 = a lot).



Annaliese Micallef Grimaud · MES\_001

	1	2	3	4	5
Sadness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Anger	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 9. Question with SoundCloud audio file embedded.

## 4.2 Embedding Video from YouTube using Source Code

A similar procedure is carried out to embed videos from YouTube. On YouTube, go to your selected video that you would like to embed in the survey. Press the 'Share' button beneath the video, and then click on the 'Embed' option. The source code for the video will then be displayed (Figure 10). You can also select from where you would like the video to start. Afterwards, copy the source code and go back to your survey on Qualtrics.

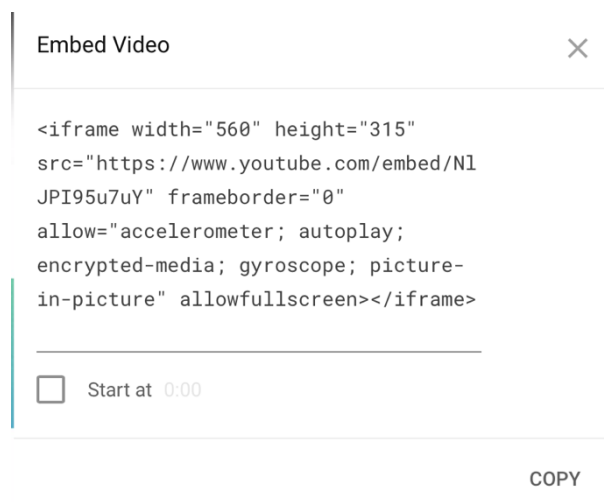


Figure 10. Video source code.

In Qualtrics, follow the same procedure utilised to copy the embedded code of an audio file, by going in the Rich Content Editor, and then selecting the Source Code icon, and

pasting the source code in your question. The video should then be displayed in your question (Figure 11).

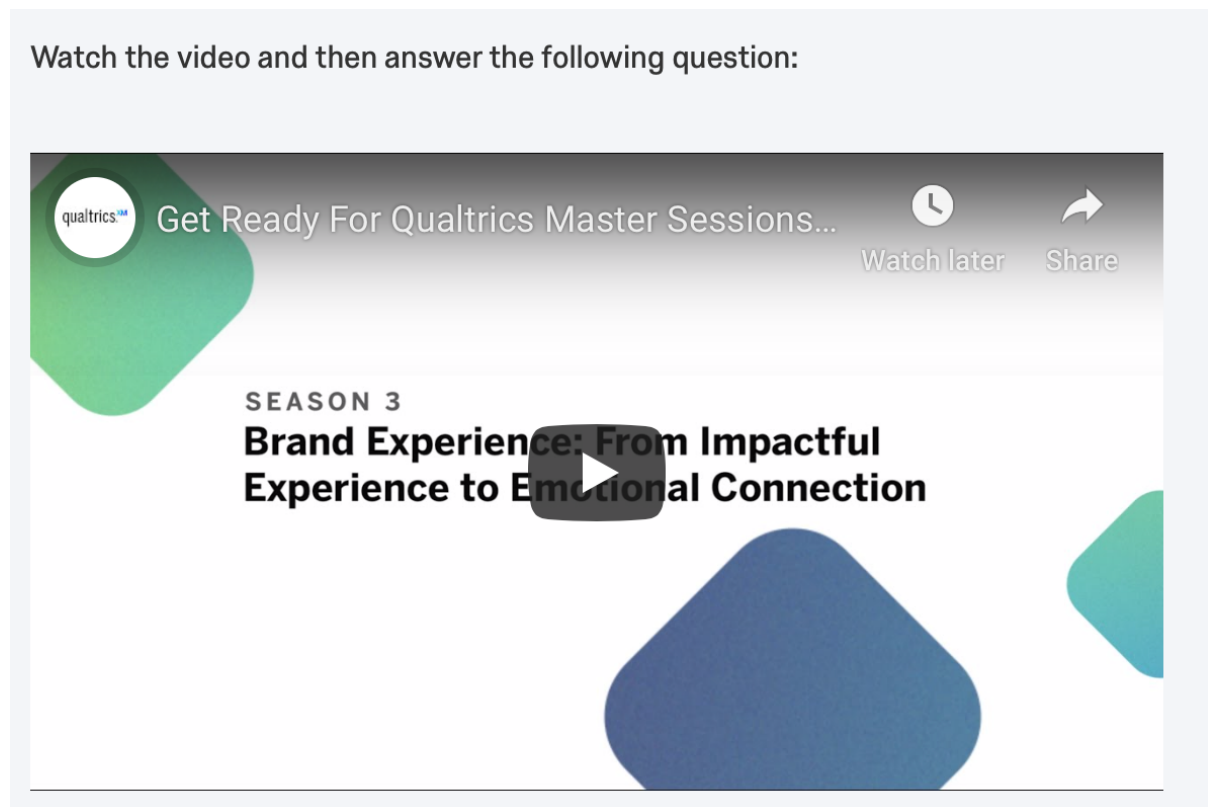


Figure 11. Video displayed as part of the survey question.

You can also insert music from youtube and only allow the participants to hear the music (hide the video).

The following code snippet would play music automatically.

```
<iframe width="560"
src="//www.youtube.com/embed/9bZkp7q19f0?rel=0&autohide=0&fs=0&modestbranding=1&autoplay=1" height="0"></iframe>
```

In this example **9bZkp7q19f0** is the short code for the video (can be copied from any youtube video by clicking “share” and taking the code. If you don’t want to have the autoplay on, switch it off by stating `autoplay=0` .

### 4.3 Inserting Media from Library

If you want to use an audio or video file from your computer as media, you have to do this slightly different than when embedding online media into your survey. Click on your question and go into the **Rich Content Editor** again. Expand the possible selections by pressing on the ‘**more**’ button, which displays the full menu of the rich content editor, and then turns to ‘**less**’, highlighted in **blue** in Figure 12. Then, press the **insert media** button, shaped like a

video clip denoted in **red** in Figure 12. Click on the **Select file from library** option and then press on the green button which says **Upload a new file**, which will allow you to upload your choice of audio/video file from your device.



Listen to the music and rate how much of each emotion you think the music is conveying (1 = none at all, 5 = a lot).

Figure 12. Inserting media from library.

Figure 12 displays how the question containing an uploaded audio file would look like to the participants.



Please select the emotion you think the music is mostly conveying from the list below:

Sadness

Anger

Joy

Figure 13. A preview of a question containing an uploaded audio file.

## 5 Survey Logic

A final key element of the Qualtrics interface is Survey logic. At a basic level, survey logic refers to the conditional or randomising order of questions and/or blocks. In other words, depending on the answer to the question, a participant may be sent towards a certain section of the survey. Or, the presentation of the questions/question blocks can be randomised so that each participant will complete the questions in a different order.

*A typical example of this:* You want to study just musicians, and so have a 'screening' question at the start to confirm that the participant is eligible (are you a musician?); if the answer to this question is no, you may route participants right to the end of the questionnaire, or a custom-made page informing them that they are not eligible to take part.

The simplest way to organise your survey and to add logic or randomisation is through '**Survey Flow**' (see 2.2.b).

### 5.1 How to set question logic (if statements)

Identify the block you wish to add a conditional (if) statement to and click '**add below**'. This will bring up a selection of options to choose from. To add a conditional statement, select the '**branch**' option. This will open options to select the appropriate question and the relevant answer. Underneath your newly created conditional statement you will see the option '**+ add new element here**'; click it and select '**block**'. You will then be able to select the block you wish to direct your participant to.

### 5.2 Randomise question presentation

#### 5.2.1 Randomisation of blocks

To add a randomisation to the presentation of several blocks, just like above, you will identify the point in the survey blocks you wish to add a randomised presentation of question blocks. Click '**add below**' and then select '**randomiser**'. Identify the blocks you wish to randomise, click and hold the move button on each of these, then drag them under the new randomise function you have just created. You can randomly present all or a subset of the selected blocks by using the plus and minus arrows. It is also good practice to select '**evenly present elements**', nonetheless, there are examples where you may not wish to do this. Figure 14 provides an example of survey logic and randomisation within the survey flow page.

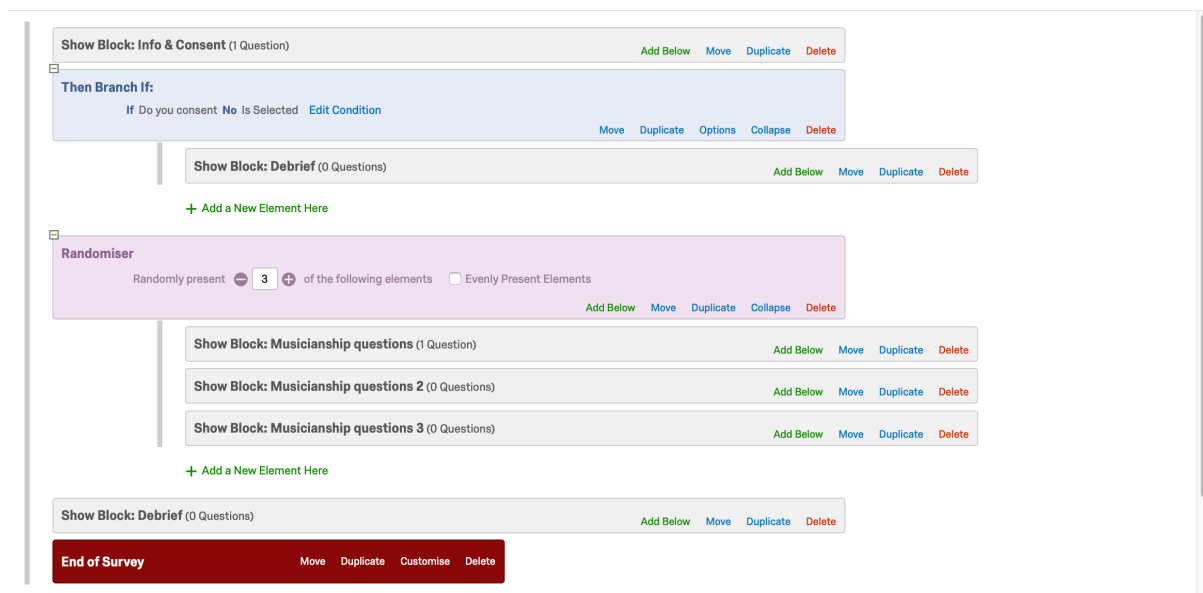


Figure 14. Adding logic and randomisation in survey flow.

## 5.2.2 Randomisation of questions within a block

The previous section denotes how the groups of questions (blocks) will be shown to the participants in a random order. However, the questions **within** the blocks will not be randomised. To randomise questions **within blocks** you do this in the **Survey builder**, where you can edit a block's behaviour by selecting a particular block and then select **question randomisation** from the block options on the left, which will display randomisation options for questions within that particular block (see Figure 15).

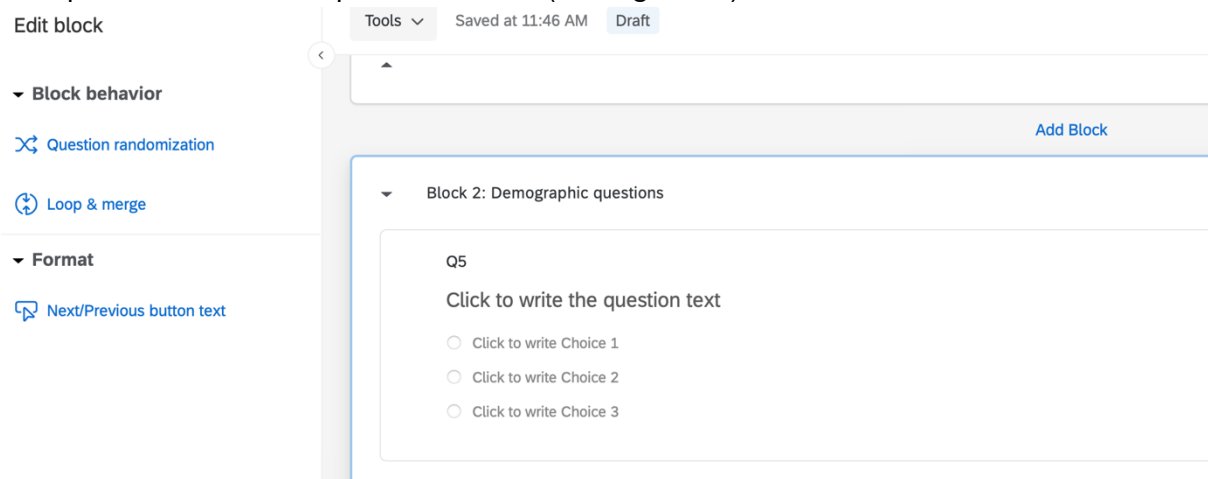


Figure 15. Block behaviour settings are accessed by selecting a particular block, which can be seen highlighted in light blue.



## **6 Publishing the survey and collecting responses**

Once you are happy with your survey and everything works as it should, please check that you have all the details (especially “survey options”, landing page, consent form), you can publish your survey. This can be done by using the “Publish” button on the upper right-hand corner. In addition, you need to create a “distribution” for the survey, and the easiest way of doing this is to click “Distributions” (on the menu containing the five choices) and then choosing “Web” and “Use Anonymous Link”. This creates an URL that you can share with your recruitment message. Now your experiment is ready to receive the first participants.

It is time to write those short and persuasive recruitment messages for Instagram, twitter, facebook and get some participants for your study.

## 7 Conclusions

These guidelines have given an overview of basic survey-building operations in Qualtrics, which hopefully will be of help for your quantitative data collection. It is always good practice to keep previewing your survey/questionnaire as it progresses, and make sure that everything is as it is supposed to be before publishing the survey and making it available for participants to see.

Qualtrics provides very detailed information on the different aspects of survey-building, so if you are stuck on how to do something, you can search for solutions on their support page:

<https://www.qualtrics.com/support/survey-platform/survey-module/survey-module-overview/>

Furthermore, this webinar, by Qualtrics, is a very good introduction to building a survey:

[https://training.qualtrics.com/jfe/form/SV\\_895lqryWSGoWEVT?Q\\_JFE=qdg&webinar=Quick+Start&Q\\_Language=EN](https://training.qualtrics.com/jfe/form/SV_895lqryWSGoWEVT?Q_JFE=qdg&webinar=Quick+Start&Q_Language=EN)

If you have any further questions, or if you run into any difficulties, send an email to Module leader, [tuomas.eerola@durham.ac.uk](mailto:tuomas.eerola@durham.ac.uk).