

Managing the data you collect from your evaluation in a sensible way can help avoid headaches. This brief guide explains some simple techniques for dealing with data.

## Data entry and coding

- The easiest way to enter data is into a spreadsheet such as Microsoft Excel, or SPSS.
- Enter the data so that each row of the spreadsheet corresponds to one respondent.
- If you have used questionnaires or structured interviews, number each paper questionnaire or interview schedule. This will give you a unique code and will allow you to double-check responses later if necessary. This number or code should be in the first column of the spreadsheet.
- If you are coding your responses numerically, be sure to make a note of the coding you use! It will save problems if you decide to come back to the data much later, or after staff changes. A good way to do this is to use a separate worksheet in the same Excel file to list the coding you used (e.g. strongly agree = 1, agree = 2, neither = 3, disagree = 4, strongly disagree = 5, not sure = 6).
- If you are using SPSS, you can enter the coding into the 'value' field in the variable view window.
- Data in Excel might look something like this...

The screenshot shows a Microsoft Excel spreadsheet titled "raw data". The spreadsheet has 15 columns and 30 rows of data. The first column contains respondent IDs (e.g., 163, 164, 165, etc.). The second column is labeled "qreno" and contains values like "schoolno", "age", "yeargrp", "gender", "howfeelA", "museum", "howgood", "interesA", "gdmathA", "boysubA", "boringA", "remfactA", "relateA", "dontmixA", and "girl". The remaining columns contain numerical data points for each variable.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
163	qreno	schoolno	age	yeargrp	gender	howfeelA	museum	howgood	interesA	gdmathA	boysubA	boringA	remfactA	relateA	dontmixA	girl
164	158A	2	12	7	2	1	3	3	2	2	4	4	2	2	4	
165	159A	2	11	7	1	2	2	3	2	3	4	3	2	3	4	
166	160A	2	12	7	2	4	9	3	3	2	2	2	2	2	3	
167	161A	2	13	8	1	2	1	2	1	2	4	5	1	1	4	
168	162A	2	13	8	1	2	3	2	2	3	3	4	3	2	3	
169	163A	2	13	8	1	2	3	3	1	2	5	1	1	1	1	
170	164A	2	12	8	1	1	1	2	2	2	4	4	1	4	2	
171	165A	2	13	8	2	2	1	2	2	2	2	2	2	2	2	
172	166A	2	13	8	1	2	3	2	2	2	5	2	3	2	3	
173	167A	2	13	8	2	5	3	2	2	4	2	2	1	3	1	
174	168A	2	13	8	1	1	4	2	1	2	2	9	1	2	4	
175	169A	2	13	8	2	4	1	4	1	2	4	4	4	3	2	
176	170A	2	0	0	2	4	1	2	2	2	4	2	3	4	2	
177	171A	2	12	7	1	2	2	1	3	5	5	4	1	2	4	
178	172A	2	12	0	2	3	1	4	3	3	4	3	4	3	4	
179	173A	2	12	7	1	2	2	2	2	4	3	4	3	9	3	
180	174A	2	11	7	2	3	1	2	3	4	4	3	3	3	3	
181	175A	2	13	8	1	2	3	2	1	2	5	4	4	1	5	
182	176A	2	13	8	1	2	3	2	2	2	4	4	4	2	4	
183	177A	2	13	8	2	2	3	3	1	3	4	4	4	3	5	
184	178A	2	13	8	2	2	3	2	2	4	5	4	4	2	4	
185	179A	2	13	8	2	2	3	2	2	4	5	3	3	2	4	
186	180A	2	13	8	2	3	3	3	2	3	4	4	3	3	4	
187	181A	2	13	8	2	2	2	3	2	2	5	3	3	2	4	
188	182A	2	13	8	2	2	1	2	1	3	4	4	4	3	4	
189	183A	2	13	8	1	2	2	2	2	3	3	3	2	3	4	
190	184A	2	13	8	1	1	2	2	1	2	3	5	2	2	4	
191	185A	2	13	8	1	2	2	2	2	4	4	4	4	2	4	
192	186A	2	13	8	1	2	2	3	2	3	3	4	3	3	5	
193	187A	2	13	8	1	1	2	3	2	2	2	5	2	2	4	
194	188A	2	13	8	1	2	3	2	2	3	5	4	5	2	5	
195	189A	2	13	8	1	3	1	2	2	2	4	3	4	3	4	
196	190A	2	13	8	2	3	2	2	2	3	4	4	3	2	5	
197	191A	2	13	8	2	3	2	2	2	3	4	3	2	2	3	

- If your questionnaire/interview included some open items, you can enter them into the spreadsheet in the relevant row. You can then compare responses to the closed and open items.
- It is a good idea to keep hold of hard copies of completed questionnaires or interview schedules for at least 12 months after the evaluation. This means that any queries regarding the data can be easily resolved.

## Quantitative data

- The first step in analysing quantitative data is to look at frequencies, e.g. how many people ticked the different boxes on a questionnaire.
- Use the 'frequency' function in Excel to do this – type it into the help box if you are not familiar with it.
- You can also use the PivotTable function in Excel to look at frequencies – again refer to help if you have not used it before. An example of a PivotTable is shown below – the table at the top gives the number of students from different year groups included in the sample.

The screenshot shows a Microsoft Excel window titled "raw data". The PivotTable is located in the range R3:C4. The PivotTable Field List task pane is open on the right, showing a list of fields including "greno", "schoolno", "age", "yeargrp", "gender", "howfeelA", "museum", "howgood", "interesA", "gdmathA", and "howsubA". The PivotTable shows the following data:

Count of gre	Total
yeargrp 0	13
7	41
8	180
9	265
10	117
yeargrp 16	
(blank)	2
Grand Total	634

- If you wish to carry out more advanced analysis on your data, it may be better to use a statistical programme such as SPSS, which can easily perform cross tabulations, correlations and other statistical tests.

## Qualitative data

- Qualitative data is less straightforward to analyse, because responses are more likely to give a deeper impression of respondents' opinions. When analysing such data, you should look to identify common themes in the responses.
- A simple way of doing this is known as *category analysis*, which involves grouping similar responses into categories.
- An example of category analysis results are given in the table on the next page. Year 10 students were asked to write down three words that described their impressions of a lecture. The responses were grouped into categories, and then the number of responses in each category were counted to give an idea of the audience's response to the lecture.

Example of category analysis:

<b>Category</b>	<b>Number of responses</b>
Positive	265
Interesting	257
Entertaining	245
Negative	58
Different	53
Educational	51
Too long/too slow	48
Neutral	45
Boring	34
Content	33
Other	18

- These data show that most responses (69%) indicated a positive impression of the lecture. There were many responses describing the lecture as interesting and entertaining, although some students found it boring.
- Category analysis works well for open questionnaire items or open items in a semi-structured interview.
- This type of method is not appropriate for qualitative evaluations with few respondents. If this is the case for your evaluation, it is best to report the results as a narrative. A good example of this type of reporting is the research report: *The Role of the Aimhigher Support Workers in Knowsley* (Liz MacGarvey, 2006). Access this and other reports on the Aimhigher Greater Merseyside website at [www.ahgtm.ac.uk/research](http://www.ahgtm.ac.uk/research).