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WRITING UP THE RESEARCH

Producing accounts of the research • General guidelines on style and presentation • The structure of research reports • The research methods chapter or section • Different audiences for research • The Harvard referencing system • Writing up qualitative research • Checklist for writing up the research

'Writing up' is an integral part of the research process. It is not something tagged on at the end. Nor is it a simple, straightforward task. Far from it, writing up is skilful. It involves a blend of interpretation, craft and convention aimed at producing a formal record of the research that can be evaluated by others. Writing up, in essence, calls on researchers to exercise skill and judgement as they do the following:

- produce an account of the research;
- tailor reports to meet the requirements of different audiences;
- adopt an appropriate style of writing and take account of certain technical conventions.

Producing accounts of the research

When researchers write up their work, they cannot produce a literal description of what took place. It is almost impossible to envisage a literal account of the research process, because:

- There are always limitations to the space available to provide the account of what happened, which means the researcher needs to provide an *edited version* of the totality. Decisions need to be made about what details are included and which are considered less important and can be missed out of the account.
- The editorial decisions taken by the researcher are likely to be shaped by the researcher's need to present the methods in their best possible light. Quite rationally, the researcher will wish to put a positive spin on events and to bring out the best in the process. Without resorting to deceit or untruths, the account of research will almost certainly entail some upbeat *positive filtering*. The point, after all, is to justify the procedures as 'good' research.
- Although research notes will be used to anchor the description of what happened during the course of the research, the writing up is inevitably *a retrospective vision*. Situations and data are likely to have a different meaning when viewed from the end of the research process from that at the time they occurred. They will be *interpreted with the wisdom of hindsight*.
- The impact of social norms and personal values on the way we interpret events pretty well guarantees that, to a greater or lesser extent, any account of research should be regarded as a *version of the truth* rather than a literal depiction of what happened. Within the social sciences, the idea of a purely objective position is controversial, and a researcher would be naïve to presume that his or her account can stand, without careful consideration, as an 'objective' description of what really occurred.

The end product, therefore, no matter how scrupulous it attempts to be, must always be recognized for what it is – an *account* of the research.

General guidelines on style and presentation

The rules of style for writing up research are really like the rules for writing which operate for the English language in general. Inexperienced writers should stick to the rules. Experienced writers might break the rules, but the assumption is that they know they are breaking the rules and are doing so consciously for a particular purpose, to achieve a specific effect. Project researchers, then, are best advised to stick to the rules.

Use the third person

There are occasional circumstances where research might be written up using the first person: 'I distributed 164 questionnaires . . . I received 46 per cent back . . . From the research I found that . . .'. Sometimes this is to be found

in qualitative research when researchers are keen to emphasize their personal involvement and the role of their personal identity in the collection and analysis of the data. Or, it might be used in the context of an informal report intended for restricted distribution. It is more conventional, however, to write research reports in the third person: 'Research involved the distribution of 164 questionnaires . . . A response rate of 46 per cent was achieved . . . Findings from the research indicated that . . .'. This is particularly the case for formal reports such as dissertations and theses.

Use the past tense

For the most part, this convention poses little trouble because researchers are reflecting upon events that happened in the past. It might be the recent past, but none the less the writing up refers to things that were done and events that happened.

Ensure good standards of spelling and grammar

Perhaps obvious, this convention is still worth stressing. Word-processing packages can be used as spell-checkers and can help with the writing style. Scrutiny of the text by the researcher is still needed, however, to avoid those text errors which cannot be picked up by the spell-checker; where 'at' has been typed instead of 'an', for example.

Develop logical links from one section to the next

A good report is one that takes the reader on a journey of discovery. The pathways of this journey should be clear, and the reader should never be left in doubt about the direction of the discussion or the crucial points that are being argued. The logic of the discussion should build point on point towards a final conclusion. (See 'The structure of research reports', opposite.)

Use headings and sub-headings to divide the text into clear sections

Judicious use of headings and sub-headings can separate the text into blocks in a way that makes the reader's task of understanding the overall report far easier. They act as signposts. As with signposts, too few and the reader gets lost, too many and the reader gets confused. As with signposts, their success depends on being clear and being in the right place.

Be consistent in the use of the referencing style

Whether the *Harvard* or the *numerical* style is used, there should be consistency throughout the report. Use one or the other, not both. Details of the Harvard style are presented on p. 320.

Use care with the page layout

The visual element of the presentation is important, and the researcher should give some consideration to things like the page layout and the use of graphs, tables and illustrations to enhance the appeal of the report.

Present tables and figures properly

Tables and figures should be presented in a consistent style that provides the reader with the necessary information to decipher the meaning of the data contained in them. As indicated in Chapter 13, there should be:

- a clear and precise title;
- the source of the table or figure (if it is not original material);
- the units of measurement being used (£, cm, tonnes, etc.);
- *x* axis as the independent variable (where relevant).

Caution: breaking with convention

If project researchers choose to break these conventions, they should be aware that they run the risk of having their report perceived as poorly written. If this is a risk that is deemed worth taking, they need to offer some explanation of *why* the rules have been broken to avoid any such impression. So, for example, if a researcher decides quite consciously to present an account of the research which uses the first person, there should be some acknowledgement that this is not conventional and some justification offered for its use.

The structure of research reports

Research reports tend to be structured according to certain conventions. The order in which they present material, and even the headings used, tend to conform to a familiar pattern – a pattern which is dictated largely by the need to present information in a logical order, with each new section building on information that has been provided earlier. The project researcher would do well to use such a structure for guidance when it comes to writing up.

The familiar structure for research reports, in some contexts, has become formalized into a template for dividing up the material and presenting it in a

preordained sequence. Following the lead of scientific journals, there are journals for social research which insist on the report conforming with the use of headings such as 'Abstract', 'Introduction', 'Methods', 'Findings', 'Discussion', 'Conclusions'. If researchers are writing for such journals, they must adopt this rigid format. Elsewhere, researchers can exercise a little more freedom in their construction of the research report, being more flexible with the order and using headings that are somewhat different. Writing up research for a PhD, for instance, allows some leeway from this structure, as does writing up a commissioned piece of research whose audience is likely to have different priorities. But, even where researchers do not find themselves constrained by explicit, externally imposed formats, there remains the same underlying rationale to the writing up of research, and this should guide the researcher. The conventional structure can and should be adapted to meet the requirements of specific audiences and specific kinds of research, but it equally provides a robust template that all social researchers can use to guide their construction of a research report.

The conventional structure for reporting research divides the material into three parts: the preliminary part, the main text and the end matter. This is as true for a full length book as it is for a PhD, for a brief journal article and for a workplace project.

The preliminary part

Title

The title itself needs to indicate accurately the contents of the work. It also needs to be fairly brief. A good way of combining the two is to have a two-part title: title and subtitle. The first part acts as the main title and gives a broad indication of the area of the work. The second part adds more detail. For example, 'Ethnicity and friendship: the contrast between sociometric research and fieldwork observation in primary school classrooms'.

Abstract

An abstract is a synopsis of a piece of research. Its purpose is to provide a brief summary which can be circulated widely to allow other people to see, at a glance, if the research is relevant to their needs and worth tracking down to read in full. An abstract is normally about 250–300 words in length, and is presented on a separate sheet.

Key words

Researchers are often asked to identify up to five 'key words'. These words are 'identifiers' – words that capture the essence of what the report is all about. The key words are needed for cross-referencing during library searches.

List of contents

Depending on the context, this can range from being just a list of chapter headings and their starting page through to being an extensive list, including details of the contents within the major section of the report; for instance, based on headings and sub-headings.

List of tables and figures

This should list the titles of the various tables and figures and their locations.

Preface

This provides the opportunity for the researcher to give a personal statement about the origins of the research and the significance of the research for the researcher as a person. In view of the importance of the 'self' in the research process, the Preface offers a valuable place in the research report to explore, albeit briefly, how the research reflects the personal experiences and biography of the researcher.

Acknowledgements

Under this heading, credit can be given to those who have helped with the research. This can range from people who acted as 'gatekeepers' in relation to fieldwork, through to academic supervisors, through to those who have commented on early drafts of the research report.

List of abbreviations

If the nature of the report demands that many abbreviations are used in the text, these should be listed, usually alphabetically, under this heading, alongside the full version of what they stand for.

The main text

The main text is generally divided into sections. The sections might be chapters as in the case of a larger piece of work or headings as in the case of shorter reports. In either case, they are normally presented in the following order.

Introduction

For the purposes of writing up research there needs to be an introduction. This may, or may not, coincide with a section or chapter titled as an 'Introduction', depending on how much discretion is open to the researcher and how far this

is taken. The important thing is to recognize that, at the beginning, the reader needs to be provided with information about:

- the *background* to the work (in relation to significant issues, problems, ideas);
- the *aims* of the research;
- key *definitions* and concepts to be used;
- optionally, in longer pieces, an *overview* of the report (mapping out its contents).

Literature review

This may be presented as an integral part of the 'Introduction' or it may appear as a separate chapter or section. It is, though, essential that in the early stages of the report there is a review of the material that already exists on the topic in question. The current research should build on existing knowledge, not 'reinvent the wheel'. The literature review should demonstrate how the research being reported relates to previous research and, if possible, how it gives rise to particular issues, problems and ideas that the current research addresses.

Methods of investigation

At this point, having analysed the existing state of knowledge on a topic, it is reasonable to describe the methods of investigation. See the section on 'The research methods chapter or section' (p. 318) for guidance on how this should be done.

Findings

This is where the reader is introduced to the data. Aspects of the findings are singled out and described. The first step is to say, 'This is what was found with respect to this issue . . . This is what was found with respect to another issue . . .'. The aim for the researcher is to be able to present relevant findings before going ahead to analyse those findings and see what implications they might have for the issues, problems or ideas that prompted the research. First things first: let's see what we have found. Then, and only then, as a subsequent stage, will we move on to considering what significance the data might have in the context of the overall aims of the research.

Discussion and analysis

Here, the findings that have been outlined are subjected to scrutiny in terms of what they might mean. They are literally discussed and analysed with reference to the theories and ideas, issues and problems that were noted earlier

in the report as providing the context in which the research was conceived. The researcher 'makes sense' of the findings by considering their implications beyond the confines of the current research.

Conclusions and recommendations

Finally, in the main text, the researcher needs to draw together the threads of the research to arrive at some general conclusion and, perhaps, to suggest some way forward. Rather than let the report fizzle out as it reaches the end, this part of the report should be constructive and positive. It can contain some of the following things:

- a retrospective evaluation of the research and its contribution;
- recommendations for improving the situation, guidelines or codes of practice;
- identification of new directions for further research.

The end matter

Appendices

This is the place for material which is too bulky for the main body of the text, or for material which, though directly relevant to the discussion, might entail too much of a sidetrack if placed in the text. Typical items that can be lodged in an appendix are:

- extensive tables of data;
- questionnaires used in a survey;
- extracts from an interview transcript;
- memos or minutes of meetings;
- technical specifications.

Notes

These will mainly occur when the researcher is using a numerical referencing system. They also offer the opportunity for scholarly details to be added which would interrupt the flow of the reading were they to be put directly into the text.

References

See the section on the Harvard system of referencing on p. 320.

Index

Provision of an index is usually restricted to large reports and books. It is unlikely that the kind of report produced by a project researcher would require an index.

The research methods chapter or section

In all accounts of research there needs to be some description and justification of the methods used to collect the data. In larger works, this appears in a separate chapter. In shorter reports and articles, it tends to be curtailed to a section under a 'research methods' heading or to a clearly identifiable paragraph or two. Within the confines of the available space, the researcher needs to explain how the research was conceived, designed and executed. This is vital in order for the reader to make some informed evaluation of the study. Basically, if the reader is not told how and why the data were collected, he or she cannot make any judgement about how good the research is and whether any credibility should be given to its findings or conclusions.

Within the confines of the space available, the methods section should do three things.

Describe how the research was conducted

Precise details need to be given, using specific and accurate numbers and dates.

- *what* method(s) were used (the technical name)?
- *when* did the research take place (month and year, duration of research)?
- *where* did the research take place (location, situation)?
- *how* was access to the data or subjects obtained?
- *who* was involved in the research (the population, sample, cases, examples)?
- *how many* were involved in the research (precise numbers)?
- *how* were they selected (sampling technique)?

Justify these procedures

An argument needs to be put forward supporting the choice of method(s) as:

- *reasonable* in terms of the resources and time available;
- *appropriate* under the circumstances for collecting the necessary type of data;
- *suitable* for addressing the issues, problems or questions that underpin the research;
- having *rigour*, coherence and consistency – a professional standard;
- producing data that are *valid*;
- using methods that are *reliable*;
- conforming with *ethical* standards.

Acknowledge any limitations to the methods employed

Good research evaluates the weaknesses as well as the strengths of its methodology. When writing up, the researcher should acknowledge any:

- inherent limitations of the methodology;
- scope of what can, and cannot, be concluded on the basis of the research that was undertaken;
- ways in which resource constraints had a direct influence on the volume or kind of findings produced;
- reservations about the authenticity, accuracy or honesty of answers;
- ways in which, in retrospect, alternative methods might have proved to be more useful;
- unexpected factors which arose during research that influenced the outcome.

Different audiences for research

Different audiences have different expectations when it comes to reading the report, and the researcher needs to decide how to pitch the account of the research to meet the expectations of the group whose views are considered most important. The easy illustration of this comes in the form of research reports produced for an academic qualification as part of an examined course – an undergraduate project, a master's dissertation, a doctoral thesis. The researcher should need little reminding that the work will be assessed by supervisors and examiners who will be focusing on detail, rigour, precision, coherence and originality as top priorities. A different audience might bring different expectations. In the case of commissioned research, the audience is likely to be more concerned with receiving a report which is succinct, easy to digest and strong on practical outcomes. In principle, the research could be just the same; the way it is written up, though, will reflect the needs of the differing audiences. This will affect:

- the style of presentation;
- the detail and length of the account;
- the amount of technical detail included;
- the terminology used.

Good practice: meeting the readers' expectations

Research reports should be tailored to meet the expectations and abilities of the audience for whom they are written.

Requirements in terms of style of referencing and some other technical aspects associated with research reports can vary in their detail. There are some general sources of information on this. For the production of dissertations there is, for example, the British Standards specification no. 4821. Although this was withdrawn in 1990, it has not been superseded and is still recommended by the British Library. For the production of academic articles and for referencing techniques, the researcher could turn to the *Publication Manual of the American Psychological Association*. There are also books devoted to guidance for authors on the technical conventions associated with writing up research – for example, K. L. Turabian's *Manual for Writers of Term Papers, Theses and Dissertations* (Chicago: University of Chicago Press, 7th edn, 2007). However, each publisher and each university will have its own specific requirements. Publishers always include guidance to authors which spell out their own particular policy as far as the presentation of work is concerned. University regulations, likewise, will contain details covering the style and presentation of dissertations and theses. The crucial thing for the project researcher to bear in mind is that their research report should always adhere exactly to the formal requirements of the principal 'audience'.

Good practice: identifying the appropriate report style

Researchers should identify which specific technical style they are expected to adopt for the purposes of writing their report, and follow it meticulously.

The Harvard referencing system

There are conventions for referring to the ideas, arguments and supporting evidence gleaned from others. There are two that are generally recognized: the Vancouver system, i.e. numerical system, and the Harvard system. The numerical system involves placing a number in the text at each point where the author wishes to refer to a specific source. The full references are then given at the end of the book or individual chapters, and these can be incorporated into endnotes. It is the other system, the Harvard system, however, which is more common in social research these days and, for that reason, further details will concentrate on this convention.

In the Harvard system, the sources of ideas, arguments and supporting evidence are indicated by citing the name of the author and the date of publication of the relevant work. This is done at the appropriate point in the text. Full details of the author's name and the publication are subsequently given at the end of the report, so that the reader can identify the exact source and, if

necessary, refer to it directly. As used in this book, the Harvard system involves referring to authors in the text in the following ways:

- Baker (2010) argues that postmodernism has a dubious future.
- It has been argued that postmodernism has a dubious future (Baker 2010).
- The point has been made that 'it is not easy to see what contribution postmodernism will make in the twenty-first century' (Baker 2010: 131).

In the *References section* towards the end of the research report, the full details of 'Baker 2010' are given, as they are for all the authors' works cited in the report. For Baker, it might look like this:

Baker, G. (2010) The meaning of postmodernism for research methodology, *British Journal of Health Research*, 25: 249–66.

As far as the References section is concerned, there are seven key components of the Harvard system:

- *Author's name and initial(s)*. Alphabetical order on authors' surnames. Surname followed by forename or initial. If the book is an edited volume, then (ed.) or (eds) should follow the name.
- *Date of publication*. To identify when the work was written and to distinguish different works published by the same author(s).
- *Title*. The title of a book is put in italics, and uses capital letters for the first letter of the main words. Papers and article titles are not in italics and have titles in lower case.
- *Journal name* (if applicable). This is put in italics and details are given of the number, volume and page numbers of the specified article. If the source is a contribution to an edited volume, then details are given about the book in which it appears (i.e. editor's name, title of edited volume).
- *Publisher*. Vital for locating more obscure sources. This is included for books but not for journals.
- *Place of publication*. Helpful in the location of obscure sources.
- *Edition*. If the work appears in a second or subsequent edition this needs to be specified.

Real examples are to be found in the References section in this book, and can be used to illustrate the principles further.

Good practice: use of referencing software

Researchers should make use of software packages to help with the organization of their references and with citing sources they refer to in their reports. Packages like *EndNote* allow the researcher to adhere to any one of the many styles that might be required.

Writing up qualitative research

For the qualitative researcher, the presentation of research in sections under the headings of 'abstract', 'introduction', 'findings', 'methods', 'discussion' and 'conclusions' might seem inappropriate and not in keeping with the way the research actually evolved. Headings like these might seem to accord with a design and execution of research more in line with experiments and surveys than ethnography or grounded theory, and therefore pose a difficulty for the qualitative researcher when it comes to meeting the conventions associated with writing up research. They would seem to be artificial and inappropriate.

Rather than ditch such headings, however, qualitative researchers might well consider using them as a template for constructing their accounts of the research – a template which gives some structure to the accounts and which is comfortably recognized by those coming from different traditions within the social sciences. While acknowledging that writing up qualitative research involves much more of a retrospective reconstruction of what actually happened than would be the case with more positivist approaches, it still needs to be recognized as just that – a retrospective *account* rather than a literal depiction of the rationale and the events. By latching on to the traditional conventions, the interpretive social researcher is provided with a template for reporting the research. The template, in this case, does not provide a means for faithfully reporting in some structured sequential manner what actually happened in the process of research. It does, however, provide a means for reconstructing and presenting the research in a way that:

- addresses and highlights the key issues;
- is clearly comprehensible to the reader;
- is logically ordered.

Checklist for writing up the research

When writing up the research you should feel confident about answering 'yes' to the following questions:		☑
1	Is there a suitable structure and logical development to the report?	☐
2	Is the text written in a clear style, free of spelling and grammatical errors?	☐
3	Does the writing style meet the expectations of the main audience for the research?	☐
4	Have the necessary conventions been followed in the writing up of the research?	☐
5	Are the references complete and do they follow a recognized style (e.g. Harvard)?	☐
6	Are the tables, figures, illustrations and diagrams properly labelled?	☐
7	Has a detailed and precise description of the research process been provided?	☐
8	Has the choice of method(s) been justified in relation to the type of data required and the practical circumstances surrounding the research?	☐
9	Have the limitations of the research methodology been acknowledged?	☐