

13 How to write a research paper

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Key concepts: text types, composition, revision, bibliography, APA style.

1. Introduction

Generally speaking, when we write about our research, we are making a contribution to the scientific community and disseminating the results of our findings in scientific articles. This means that other researchers have access to the research we produce and can examine the subjects raised in greater depth to advance scientific knowledge.

At the same time, we can see the dissemination of this research as another opportunity to collaborate with the people with whom we have undertaken the research, giving the status of co-authors to the teachers, students and other people who played an important role in the process of gathering and interpreting the data. We might also consider it as a way of establishing a dialogue with the educational community by publishing texts in a more accessible style in journals or magazines read by teachers, people in public administration, trainee teachers, etc.

Finally, we might see the dissemination of research as a responsibility towards the society that funds our work (providing public universities, and money for projects and scholarships). It is more and more common for researchers to explain the results of their work in press articles and other open-access forums. Some scientific journals offer this option and increasing numbers of people are publishing the manuscripts of their research (i.e. the pre-acceptance versions,

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How to cite this chapter: Borràs, E. (2017). How to write a research paper. In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 483-496). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.643>

depending on the regulations of each publishing house) on academic networks such as Academia.edu and Researchgate.net.

In this chapter, we will discuss the format of papers that are strictly academic. The specific structure of the text will be determined by whether it is for a master's dissertation, a doctoral thesis, a chapter of a specialist book or an article for a scientific journal. In the case of qualitative research, it is necessary, when writing the text, to bear in mind a series of processes that will be explained in this handbook, such as:

- the justification for the research in terms of its social and educational interest, and in theoretical terms;
- the gathering of information or data;
- the treatment and organization of the data;
- the adoption of a theoretical and methodological framework;
- data analysis;
- the interpretation of data in an original and/or creative way, and obtaining the findings;
- setting out a discussion on the relevance of the results;
- setting out the conclusions.

2. Differences between a master's dissertation and a thesis

Many of the people who read this handbook will be in the process of writing their master's or doctoral dissertation. In both cases, academic research is

undertaken with a view of achieving the degree. At the same time, work on doctoral dissertations has a wider scope and a more in-depth approach than a master's thesis. Similarly, the research methodology is more rigorous in the case of the doctoral dissertation.

Doctoral dissertations have to explain the purpose of the research, the theoretical framework within which the subject matter sits, the methodology used, the results of the research, and final discussions and conclusions. Normally, the content is structured into various chapters which in qualitative research must include the following information:

- *Title*: the purpose of the title is to capture the reader's attention and provide concise information about the content of the text. Titles should not exceed ten words.
- *Abstract*: this should contain a brief summary of the paper so the reader can decide in advance if they are interested in reading the full text.
- *Keywords*: around five keywords are usually expected, which help to identify the subject, the context, the methodology and the key theoretical concepts of the research.
- *Introduction*: this presents the research subject/problem, the relevance and scope of the subject, the position of the researcher within the context being studied (for example, if he/she is also the teacher), their personal justification for conducting the research, etc.
- *The objectives and questions of the research*: these must be as clear as possible. They should be presented in the form of a list.
- *The theoretical framework*: this covers the theoretical basis of your research, informing the reader about any previous research upon which this work is based, the state of the art, and your scientific approach.

- *Methodology*: this explains the design of the research and the methods of gathering and analyzing data. It should explain how the research has been conducted, which tools were used to achieve the research objectives (see the chapter by Canals, this volume), which data have been gathered and how they have been managed (types of analysis, transcriptions, etc.). It also explains the procedures followed to ensure the internal validity of the research (triangulation, data sessions, etc.; see the chapters by Antoniadou, this volume; Moore & Llompарт, this volume).
- *The results of the research*: in other words, the analysis of the data following the procedure described in the section on methodology, with reference to the established theoretical framework. The data are included in a transcription format, with images, etc.
- *Discussion of the results*: this puts an emphasis on the most important results, contextualizing them within the chosen theoretical and methodological frameworks. How does our research contribute to the scientific and educational community? What do the results show? What foundations are we leaving for subsequent research?
- *Conclusions*: this chapter should sum up the contributions of the study, its limitations, and recommendations for future research.

As a rule there is no limit on the length of the text, but the generally accepted recommendation for a doctoral dissertation is 250-350 pages in 1.5 spacing on A4 paper.

It should be borne in mind that doctoral dissertations nowadays can comprise a compendium of published research papers, some of them in high-profile journals. The regulations of each university should be referred to with regard to the conditions of this format.

Master's theses, even while being advanced research projects, are shorter and more limited in scope. To give you an idea, they might comprise 50-150 pages

of 1.5 spacing on A4 paper, depending on the requirements of each individual university. Master's theses should put forward a solid and coherent argument with an internal unity that supports the research in a convincing manner. In addition, the author must demonstrate that they are familiar with the research tools and know how to use them in a specific situation. The sections in a master's dissertation are the same as those of a doctoral thesis.

3. Differences between articles in scientific journals and chapters of a book

The most prestigious journals and the most widely respected when it comes to evaluating academic competence are known as blind peer-reviewed journals (whereby other researchers check the work anonymously and either approve or recommend against its publication). These include journals with the highest impact factor; in other words, the articles published in them are most often quoted in other publications. The most respected indexes are the Social Sciences Citation Index (Thomson Reuters, Journal Citation Reports) and the SCImago Journal & Country Rank (Scopus). In Catalonia, there is also the Carhus Plus+ index (AGAUR). University libraries often organize courses on understanding how these indexes work and how to interpret the information they provide.

The usual process for book publishing is for editors to invite authors to propose a chapter according to their area of expertise, by means of open or closed calls, these chapters usually being reviewed by external experts.

Scientific articles generally consist of the same sections as a master's or doctoral dissertation but focus on a specific aspect of the study. You can write about a particular methodological issue, a theoretical concept that the study takes further, specific data, a phenomenon or context that has not been covered fully in other research, etc.

It is worth remembering that the chapters of a book do not necessarily follow the structure of the research articles. If they are for reading by a more general

audience, they tend to concentrate on the sections relating to results, discussions and conclusions, which are linked more to the practical part of the research. Thus, the chapters do not explore the theoretical framework and methodology too deeply but instead the main contribution of these sections is to contextualize the data and the interpretations of the results of the analysis.

The database of Scholarly Publishing Indicators (SPI) in Humanities and Social Sciences provides a ranking of the importance of Spanish and international publishers that can provide useful information on the quality of books.

4. How do you go about starting to write?

4.1. Data as a basis for writing

It is important to remember that ideas tend to organize themselves as you write. For this reason, it is advisable to get writing in order to explore ideas or unconnected thoughts rather than expect to have all your ideas completely clear in your head prior to sitting down before a blank page. For example, let us imagine that while you are writing you realize that it might be possible to make a connection between certain types of interactions, or while analyzing a transcription an idea suddenly occurs to you that establishes a solid connection with the objectives you are exploring in that particular work. Thus, even if you have not yet clearly defined the objectives of your research or your questions, it is important to get writing as an initial analysis which could later redefine itself into a chapter. It is at these valuable moments when you are fully lucid that you start shaping the final objectives and questions of the research.

Furthermore, you will manage to ensure that (1) the selection of the data and their analysis are fully consistent with (2) the objectives, and (3) how they are written up. In this way, these three elements are dealt with almost simultaneously, and articulated as a whole right from the start of the process. If, on the other hand, (1) you first select the data and analyze them, and (2) after a time peruse the objectives of the work, and (3) finally record the connection between these

processes in the end product (i.e. the thesis or dissertation), you run the risk that the narrative of the thesis will appear disjointed.

But this connection is not only found at the level of structuring the writing. In ethnographic research in particular, the relationship between (1) data collection, (2) its analysis, and (3) putting it down in writing is very close and this helps us to focus the work. Thus, as noted earlier, we need to be analyzing the data as and when they are collected (Wolcott, 1999) to determine whether any interesting ideas emerge and thus steer the data collection in this direction. This is crucial because as the data are analyzed (whether these are from interviews, recordings in class or text documents) we need to be writing down the initial analyses so they can be used to give body to the research. This is a self-sustaining process that will help to focus the orientation of the research (see the chapters in the first section of this handbook).

It is therefore advisable to first concentrate on the data, writing down all the analyses you undertake. So much so, that in bottom-up approaches, which are practiced in ethnomethodological approaches (Garfinkel, 1967; Heritage, 1984; see also Masats, this volume; Moore & Llompарт, this volume; Nussbaum, this volume), the data will show us which topics to explore and steer us towards the research objectives in a context of *data-driven research*. This is also the mode of action in research that uses a *grounded theory* (see Antoniadou, this volume). In other words, based on the research carried out on the data (and the writing process) more specific questions will emerge that will help you to outline the objectives and possibly even plan new data collection sessions.

4.2. Writing as a nonlinear process

Having a preliminary working index helps you to complete the sections and gives the feeling that you are on the one hand making progress and on the other exploring the ideas you have gestated. The plan is to fill out the index with your ideas (short texts that have been produced along the way) in a nonlinear way, while at the same time being aware that the index will need to be modified as

you progress in the research and writing process. It may be useful to have a separate folder on your computer for each section of the index so you can add any notes as and when you make them, useful bibliographical references, data excerpts, etc.

Thus after analyzing the data and writing the chapters of the results, we can, for example, write the introduction or the chapters on the theoretical framework and methodology. Writing in a nonlinear fashion allows, therefore, for the theoretical framework to be articulated in a coherent way within the structure of the work, with references to elements that will be analyzed subsequently in the same work. This forewarns the reader about the theoretical foundations of what they will find later on, and establishes the fundamental internal consistency for the unitary structure of the work.

We believe it can be useful to write the introductory chapter and the conclusions towards the end of the process, by which time you will have a more general vision of all the chapters and thus be able to establish relations between the objectives and the results. The research questions that normally appear at the beginning of the work in the chapter on objectives or in the introduction should be underlying the entire research paper. It is for this reason that it might also be advisable to include a cross-cutting outline in the introductory chapter that lists the research questions, data, results and chapters. This can help the person writing it to organize their tasks, serve as a reference for readers and, in short, provide a tool that leaves the overall structure of the work well supported.

It is also worth bearing in mind that, when writing an article or a chapter, it might be useful to review the text regularly to extract the main topic sentence from each paragraph and thus check the fluency and internal consistency of the chapter or the article. In the case of a long text, therefore, we recommend combining these key ideas, extracted from each paragraph, to construct a section at the end of each chapter (or at the end of the article) to provide a summary of the whole text. This helps ideas to flow together consistently and can also help to identify non-connecting ideas that need to be amended.

4.3. Revisions

The process of writing entails the production of various drafts which later need to be proof-read and edited. This means managing your time sensibly in order to deliver the project within the deadline. Consistency is crucial in the writing process. It is therefore important that the writing process starts as soon as possible so you have the feeling of ‘putting it down on paper’, that you are producing something, and that your ideas are inexorably maturing. We now know that revision (or rewriting) is a key part of the writing process.

Indeed, once you have handed in the first version of your work, you should still expect various interactions with their subsequent corrections. These corrections may be of different types: those that point to the desirability of a general reorganization of the content, or else to partial reorganizations. There are often suggestions for adjusting the content, or factual errors might have been detected. Some revisions might mention stylistic or orthographical points.

Interactions with the tutor or editor (usually in the case of book chapters) of the work are essential, especially in the early stages of writing, when the work is still in draft form. It is a real shame when students have pursued a line of work in great depth that has not been properly agreed in advance, or put a lot of effort into certain areas which finally, during the revision process, are left out. Having said that, this is what writing a research paper is all about: a process of three steps forward and two steps back.

5. How do you cite?

5.1. What is a citation?

If, in his or her work the author uses material that is not his or her own, this must be clearly identified in the text, either by footnotes or in final notes. This identification allows the reader to access the full description of the source for further consultation if they wish.

It is essential to cite all the sources used as otherwise you could be accused of plagiarism. Plagiarism consists of using someone else's material without identifying the source so the reader might infer that this material is original and written by the author themselves. Thus if you use someone else's content to carry out your research, you must justify where this information came from and give credit to the author. To do so, you need to include these citations and bibliographic references while writing the work in a new document for greater efficiency.

The citation might be literal or paraphrased (using your own words to explain the content of someone else's material). If your work makes a direct quotation from a source and reproduces it literally, you must always cite the author, the year of publication and the pages cited. If the quotation is under 40 words, it is normally included in the text within inverted commas. However, if the text contains more than 40 words, the norm is to indent it in a separate paragraph. Similarly, if instead of using a literal quote you choose to paraphrase the material you are referring to, you must specify the author and the date of the material in question but there is no need to include page numbers. In both cases, the mentions of the original document will allow us to locate it in the bibliographical references section.

5.2. Management systems for citations and bibliographical references

Although citations and bibliographical references can be managed manually as described above, research management systems such as Mendeley or EndNote are becoming increasingly popular because they enable you to find, save and share information very efficiently. In addition, citations and bibliographies are generated automatically according to your preferred citation style which lets you make changes easily. The Microsoft Word editor is also a useful tool for managing bibliographies.

Most university libraries give courses on data managers, though you can also find tutorials on the internet. While it may be difficult to adapt to this system

at the beginning, your efforts will be amply rewarded with the automation of references.

5.3. The APA style

There are various citation styles, e.g. American Psychological Association (APA), Chicago Manual of Style (CMS), Modern Language Association (MLA), though in the field of social sciences the most widely used system is that of the APA. In the section on online resources in this chapter there are a few pages on presenting in this format. You can find summaries which help to give a better understanding of the general rules of this style, as well as exhaustive sections to clarify specific situations. We have outlined below the general features of the APA style while encouraging you to take a look at the websites we have mentioned.

For citations in a text in the APA style, we use brackets with the author's surname and the year of publication. As mentioned earlier, we include the page number in brackets if referring to one or more pages in particular and not the whole work in general. These general rules change slightly if the author has already been mentioned previously, in which case only the year appears in brackets. Another important detail is that if you are citing a work with multiple authors, the first time you mention it you must give the surnames of all the authors (up to a maximum of five). On further mentions of this work in the text, you only need to include the first author followed by the abbreviation 'et al.'

The list of references is included at the end of the text in double spacing and alphabetical order. This list should show all the references to the publications cited in the work and vice versa; in other words, all the references given in the list must be cited in the text. It is important to cross-check the details for any omissions or redundancies.

You should follow the chosen style guide (the APA in this case) to the letter (full stops, commas, spaces, etc.) and ensure the whole text is consistent. The works cited are referenced differently depending on their type: full books, chapters in books published by one or several authors, articles in periodicals, audiovisual and

electronic sources. It is important to be alert to the tiny differences in format of each of these media. Similarly, you need to bear in mind that electronic sources must include the URL (the internet page address) and the date of the consultation.

6. Other considerations

Very often, research articles are not accepted at the first attempt at publication, especially by high-profile journals. It is important to take the advice from experts in a positive way and not get discouraged. Sharing drafts with colleagues is a good way of practicing the art of giving and receiving appraisals of what we read and write as researchers.

Works cited

- Antoniadou, V. (2017). Collecting, organizing and analyzing multimodal data sets: the contributions of CAQDAS. In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 435-450). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.640>
- Canals, L. (2017). Instruments for gathering data. In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 390-401). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.637>
- Garfinkel, H. (1967). *Studies in ethnomethodology*. Englewood Cliffs, NJ: Prentice-Hall.
- Heritage, J. (1984). *Garfinkel and ethnomethodology*. Cambridge: Polity Press.
- Masats, D. (2017). Conversation analysis at the service of research in the field of second language acquisition (CA-for-SLA). In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 321-347). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.633>
- Moore, E., & Llompart, J. (2017). Collecting, transcribing, analyzing and presenting plurilingual interactional data. In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 403-417). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.638>

- Nussbaum, L. (2017). Doing research with teachers. In E. Moore & M. Dooly (Eds), *Qualitative approaches to research on plurilingual education* (pp. 46-67). Research-publishing.net. <https://doi.org/10.14705/rpnet.2017.emmd2016.621>
- Wolcott, H. (1999). *Ethnography: a way of seeing*. Oregon: Altamira Press.

Recommended reading

- Joyner, R. L., Rouse W. A., & Glatthorn, A. A. (2013). *Writing the winning thesis or dissertation: a step-by-step guide* (3rd ed.). Thousand Oaks, CA.: Sage.
- Lester, J. D. (1976). *Writing research papers: a complete guide* (2nd ed.). Glenview, IL.: Scott, Foresman and Company.
- Rigo, A., & Genescà, G. (2002). *Tesis i treballs. Aspectes formals*. Vic: Eumo Editorial.
- Soriano, R. (2008). *Cómo se escribe una tesis. Guía práctica para estudiantes e investigadores*. Córdoba: Berenice Manuales.

Websites with resources mentioned

Sites with advice on writing research papers

UAB doctorate school: <http://www.uab.cat/web/doctorats/que-em-cal-saber-de-la-tesi-doctoral-1224656373657.html>

Programs

EndNote (Windows and Mac, paying, free test license): <http://endnote.com/>

Mendeley (Windows and Mac, free): <http://www.mendeley.com/>

Quality indexes of publications

Carhus Plus+ (AGAUR): <http://agaur.gencat.cat/ca/avaluacio/carhus/carhus-plus-2014/>

Scholarly Publishing Indicators in Humanities and Social Sciences (SPI): <http://ilia.cchs.csic.es/SPI/index.html>

SCImago Journal & Country Rank (Scopus): <http://www.scimagojr.com/>

Social Sciences Citation Index (Thomson Reuters, Journal Citation Reports – normally accessed via your university’s library): <http://login.webofknowledge.com/>

Information on the APA style

Owl Purdue Online Writing Lab: <https://owl.english.purdue.edu/owl/resource/560/01/>

UAB Library Service: <http://www.uab.cat/web/recursos-d-informacio/citacions-i-bibliografia-1326267851837.html>

University of Girona Library: <http://www.udg.edu/LaBibliotecaforma/Comcitardocuments/EstilAPAencatala/tabid/11972/language/ca-ES/Default.aspx>

Website of the American Psychological Association: <http://www.apastyle.org/>

Published by Research-publishing.net, not-for-profit association
Dublin, Ireland; Voillans, France, info@research-publishing.net

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Qualitative approaches to research on plurilingual education (English)
Enfocaments qualitativus per a la recerca en educació plurilingüe (Catalan)
Enfoques cualitativos para la investigación en educación plurilingüe (Spanish)

Edited by Emilee Moore and Melinda Dooly

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Typeset by Research-publishing.net
Cover design and cover photos by © Raphaël Savina (raphael@savina.net)

ISBN13: 978-1-908416-46-9 (Paperback - Print on demand, black and white)
Print on demand technology is a high-quality, innovative and ecological printing method; with which the book is never 'out of stock' or 'out of print'.
ISBN13: 978-1-908416-47-6 (Ebook, PDF, colour)
ISBN13: 978-1-908416-48-3 (Ebook, EPUB, colour)

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Legal deposit, United Kingdom: The British Library.
British Library Cataloguing-in-Publication Data.

A cataloguing record for this book is available from the British Library.

Legal deposit, France: Bibliothèque Nationale de France - Dépôt légal: March 2017.
