

The Methods & Techniques for Writing Thesis, Dissertation and Research Paper

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Introduction

The Researcher do consider the purpose and audience of the research they are going to conduct from the very beginning of research process. Knowing the purpose of research clarifies the nature of the researcher's task in the research process. This may, for example, to get academic degree, academic promotion, fame, assessment etc. In the case of obtaining a doctorate degree, the student scholar needs to submit a thesis, adhering to the guidelines and regulations of the institutions he or she will submit their work to. If the purpose is to get academic promotion or fame, the research paper is the right form of research. In doing so, the researcher should follow the design, structure and style of the research paper, taking into account the guidelines, scope and policy of the journals he or she will submit their work to. As for audience of research (i.e. supervisors, examiners, researchers, editors, reviewers), researchers need to consider the tools of assessment that such audience follow in the process of reviewing or reading the research. Accordingly, the distinction between research paper, dissertation and thesis is based on the nature of purpose and audience of research. In this regard, this assignment is devoted to preparation of '*Research Paper, Dissertation and Theses*' in terms of the following relevant issues:

- Research Paper: Writing, Review Process and Structure
- Dissertation and Thesis: Similarities and Differences, Writing, and Review Process

Research Paper, Dissertation and Thesis

Generally speaking, the terms 'dissertation' and 'thesis' are used interchangeably to refer to a research submitted to get an advanced degree. They are submitted as a requirement for fulfilling a master or doctorate degree. To be specific,

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the students submit a dissertation to obtain a master degree while obtaining Ph.D. entails the students to submit a thesis. This distinction is based on the British academic institutions while in the American institutions the converse is true (Paltridge and Starfield, 2007).

The main difference between a thesis and dissertation is the depth of knowledge the researcher attained. The Ph.D. thesis is detailed and search in depth. As for the research article or paper, it is a research that is submitted to journals to get academic promotion, assessment of students by their academic institutions, fame etc. It is brief, informative and succinct, having all the features of research. In this assignment, the term 'thesis', is used to refer to research submitted to get Ph.D. while dissertation refers to a master degree.

One of the most obvious differences between dissertations, thesis and journal papers is their length. Theses and dissertations vary in length, depending upon the university's requirements for Master's and PhD works. Commonly word limits are around 20,000 for dissertation, and can be more than 80,000 for thesis in the humanities (ibid, P. 43). Journal papers tend to have word limits in the region of 4,000 to 6,000 and some papers are up to 9000 (Renandya, 2012). The detailed account of such terms will be in the ensuing lines.

Research Paper

The journal article is a '*way of reporting research for professional journals or edited collections*' (Seliger and Shohami, P. 250). It is defined by Day (1998) as a written report describing original research results. These definitions show that research paper is submitted to journals in a brief, succinct way. Besides, it focuses mostly on the major features of the research such as the purpose, review of the literature (often referred to as background) procedures used for carrying out the research accompanied by tables, charts and graphs and interpretation of results (often referred to as discussion) (Seliger and Shohami,1989).

A research paper has usually been written as a part of a subject and does not commonly count as a separate subject or module and thus does not require an individual supervisor (Paltridge and Starfield, 2007). The content and emphasis of the research paper will vary according to the intended readers (researchers or practitioners). Therefore, the researchers should be aware of the background and interests of the readers of the journals. Articles intended to be read by the practitioners will emphasize the practical implications and recommendations of the research, while articles intended to be read by researchers will describe in detail the methods used to collect the data, the construction of the data collection procedures and the techniques used for analyzing the data (Seliger and Shohami, 1989).

A research paper is the most important form of research that distinguishes advanced researchers from novice ones. Academic institutions depend on the researchers' publication in prestigious referred journals to assess the competence of

their faculty members. Publishing in international refereed journals will get scholars more credit points for their career promotion (Renandya, 2012). Similarly, academic institutions are ranked according to their publications in the top journals that have impact factor¹. For examples, ISI (Institute of Scientific Information) journals are the top journals and publishing in such journals is an indication of advanced level of the scholars. Among the top ISI linguistics journals are *ELT Journal*, *Modern Language Education*, *Language Assessment*, *Foreign Language Annals*, *Annual Review of Applied Linguistics*, *Journal of Linguistics*, etc. These journals are considered the top in the field of linguistics and English language teaching and learning. Every journal has its own regulations for publication.

Table 1: Shows Top Seven Journals according to Edbert's (2007) Quality Indicators

No.	Name of the Journal
1.	Applied Linguistics
2.	English Language Teaching Journal
3.	Journal of Second Language Writing
4.	Language Learning
5.	Modern Language Journal
6.	Studies in Second Language Acquisition
7.	TESOL Quarterly

Writing a Research Paper

In this section, the focus is on writing of research paper in respect of title, abstract, introduction, materials and methods, results and discussion. The most common labeling of the component parts of research paper, is 'Introduction, Methods, Results, and Discussion' (hence, the acronym IMRAD) (Day, 1998). To determine how to organize such papers, and which general headings to use, you will need to refer to the 'instructions to authors' of your target journal.

As for the paper title, the author should consider that the title will be read by thousands of people and perhaps few people, if any, will read the entire paper. Therefore, writing the title entails the writer to consider the reader's comprehension and the main idea of his or her research (i.e. the title should reflect what is the research about). The raising question is: What is a good title? It is the fewest possible words that adequately describe the contents of the paper. This means that the title should be brief and represent the content of the research. Wallwork (2011, P. 165) argues that the researcher should answer these questions in order to be able to formulate the title:

- What have I found that will attract attention?
- What is new, different and interesting about my findings?
- What are the 3–5 key words that highlight what makes my research and my findings unique?

Here, the writer focuses on what attracts the reader's attention in terms of unique findings. This denotes a relationship between the title and findings. The best title is that it represent the write's findings. Besides, such above questions demonstrate that wring the title in its final form should be after finalizing the research.

As for abstract, it is Defined by **Wallwork (2011)** as "*A single paragraph of between 100–250 words, containing a very brief summary of each of the main sections of your paper*" (P.179). This means that it should provide a brief summary of each of the main sections of the paper: Introduction, Materials and Methods, Results, and Discussion. A well-prepared abstract enables readers to identify the basic content of a document quickly and accurately, to determine its relevance to their interests, and thus to decide whether they need to read the document in its entirety" (American National Standards Institute, 1979b cited in Day, 1998). The Abstract should not exceed 250 words and should be designed to define clearly what is dealt with in the paper. It should be typed as a single paragraph. The number of words of abstract differs from journal to another, but the range is between 100-250 words.

Wallwork (2011) and Gustavii (2008) argue that it is crucial for researcher to write a working abstract at an early stage, which will provide him/her with a framework for the rest of the article. It will guide him/her in deciding what to include and what to omit. Then, when he/she completed the paper, he/she can return to the working abstract and reconstruct it in its final form. As for name of authors and address, it is crucial for authors to write their names, their institutions and address either there is only single author or co-authors. Nowadays, international journals asked authors not to mention their names in the body of the paper for blind review purpose. They can give their personal information in the cover letter, enclosed with the paper.

Regarding the introduction, it aims to provide rationale for the study. Researchers should state briefly and clearly their purpose in writing the paper. Much of the introduction should be written in the present tense, because researcher refers primarily to his or her problem and the established knowledge relating to it at the start of their work (Paltridge and Starfied, 2007). Suggested rules for a good introduction are as follows:

- The introduction should present first, with all possible clarity, the nature and scope of the problem investigated.
- It should review the pertinent literature to orient the reader.
- It should state the method of the investigation. If deemed necessary, the reasons for the choice of a particular method should be stated.
- It should state the principal results of other relevant studies.
- It should state the principal conclusion reached by other studies (Day, 1998, P. 34).

The above rules presented by Day (1998) show that literature review is integrated with introduction in writing a research paper. Most writers integrate the introduction with literature review in writing research paper, unlike theses and dissertations, which entails a specific chapter for introduction.

The section 'materials and methods', has different names: methods, materials and methods and 'method description and validation (Paltridge and Starfield, 2007). Authors must give the full details of the methods used, justifying to the reader the use of certain method. Most of this section should be written in the past tense (Wallwork, 2011). The main purpose of the 'materials and methods section is to describe (and if necessary defend) the experimental design and then provide enough detail so that a competent worker can repeat the experiments (Day, 1998). To be specific, when a writer's paper is subjected to peer review⁴, a good reviewer will read the materials and methods carefully and if there is serious doubt that your experiments could be repeated, the reviewer will recommend rejection of your manuscript whatever are your results (ibid). Wallwork (2011, P.219) lists important questions that the method section should answer:

- What / Who did I study? What hypotheses was I testing?
- Where did I carry out this study and what characteristics did this location have?
- How did I design my experiment / sampling and what assumptions did I make?
- What variable was I measuring and why?
- What protocol did I use for collecting my data?
- How did I analyze the data? Statistical procedures? Mathematical equations? Software?
- What probability did I use to decide significance?
- What difficulties did I encounter?
- How does my methodology compare with previously reported methods, and what significant advances does it make?

So now we come to the core of the paper, the data. This part of the paper is called the 'result section'. There are usually two elements of the 'result section' overall description of the experiments and the data. Not all journals require a separate results section, often it is integrated with the discussion, under the section 'results and discussion'. The results should be presented in the past tense. This stage entails a researcher to pay due consideration to transfer data from laboratory or fieldwork notebook to manuscript. The presentation of this section depends on the researcher's skills. The researcher should present representative data in the manuscript rather than endlessly repetitive data (Day, 1998). The raising question is: How can a researcher structure this section? Wallwork (2011) recommends the following steps:

- Highlight the results that answer your research questions.
- Outline secondary results
- Give supporting information
- Mention any results that contradict your hypothesis and explain why they are anomalous.(P. 236)

The discussion is harder to define than the other sections. Thus, it is usually the hardest section to write (Day, 1998) and (Wallwork, 2011). Many papers are rejected by journal editors because of a faulty discussion, even though the data of the paper might be both valid and interesting. Therefore writes should pay attention to what and how to present their discussion.

What are the essential features of a good Discussion? Below are the main components of good discussion:

- Try to present the principles, relationships, and generalizations shown by the results.
- Point out any exceptions or any lack of correlation and define unsettled points. Never take the high-risk alternative of trying to cover up or fudge data that do not quite fit.
- Show how your results and interpretations agree (or contrast) with previously published work.
- Discuss the theoretical implications of your work, as well as any possible practical applications.
- State your conclusions as clearly as possible.
- Summarize your evidence for each conclusion (Day, 1989, P. 46).

Review Process of Research Paper

There are two types of review in most established journals: a single-blind or double-blind review. In a single blind review, the reviewers know the identity of the author of the manuscript, but the author does not know who the reviewers are. As for a double-blind review, neither the author nor the reviewers know the identity of each other. The double-blind review is more common nowadays, since it ensures the objectivity of review process (Renandya, 2012). Thus, a manuscript is accepted or rejected based on its own value, excluding any other factors that have nothing to do with the quality of the manuscript (Day, 1998). The editor starts the first stage of review before they are sent out for reviewers. Manuscripts that are poorly written, contain a lot of language errors, do not match the aim and scope of the journals, do not follow the submission guidelines will most likely result in a swift rejection (Day, 1998). It is therefore crucial that you make sure that you have written your manuscript according to the author/submission guidelines (available in journal's website). Besides, you have to carefully proof-read your manuscript before submitting it to a journal. Failure to do so would cause unnecessary delay in getting your work published and

may lead to its rejection. (ibid). Another important issue is that writers should follow the submission guidelines as closely as possible since one of the most common reasons for a rejection is that the manuscript does not follow the guidelines (Renandya, 2012).

It is of utmost importance for researcher to distinguish between good journals, poor and fake ones. The criterion for reputable journals, which is of vital importance for writers to consider before submitting their manuscript, is the availability of detailed information about the journal and its publication policy. Reputable journals should provide the following information on their website:

- Aim and scope of the journal (research or practice-oriented, topic coverage, etc.)
- Submission guidelines (e.g., length, format, font type and size, spacing, referencing style, spelling)
- Review policy (e.g., refereed or non-refereed; review wait time)
- Frequency of publication (e.g., three times a year, quarter)
- Other pertinent information (e.g., research ethics guidelines, copyright, etc.) (TESOLJournal, 2005 cited in Renandya (2012).

If this information is not readily available, there is reason to suspect that the quality of the journal may be questionable.

Structure of Research Paper

As it was stated earlier, the structure of the research article takes a simple and brief, but succinct and compact organization. This is ascribed to the restricted word limit in papers that tend to mean that you have to be accurate, brief and to the point when describing analysis methods and techniques (Seliger and Shohami, 1989). Having reviewed many articles of many international refereed journals, I found that the research paper follows such structure: abstract, key words, introduction, literature review, materials and methods, results and discussion and conclusions.

Theses and Dissertations

The term 'thesis' or 'dissertation' is defined as '*a format for reporting research which graduate students write as a part of fulfilling the requirements for an advanced academic degree*'(ibid, P .251). In writing dissertation or thesis, the student is expected to describe in great detail all the phases of the research, taking into account its readers (i.e. guide(s) and examiners). The thesis or dissertation includes the purpose and significance of the study, the rationale, a thorough review of the literature, detailed information as to the research tools and the procedures involved in their development, an interpretation of the results in the form of conclusions, implications and recommendations (Paltridge and Starfield, 2007). The detailed description of the process of research is needed to provide the guide and examiners with an indication of the students' ability to carry out research. It is essential for the

students to consider the intended audience of their thesis or dissertation, their readers' role and purpose in reading their text, how their readers will react to what they read, and the criteria they will use for assessing their text (ibid).

Differences between Master's and Doctoral Dissertation

A doctoral thesis generally has greater breadth, depth and intention than a master's dissertation. This demonstrates that a Ph.D. student should search in depth and extensively investigate his or her research area. Paltridge and Starfield (2007) list the differences between a master's thesis and a doctoral dissertation saying: a master's dissertation demonstrates:

- an original investigation or the testing of ideas;
- competence in independent work or experimentation;
- an understanding of appropriate techniques as well as their limitations;
- an expert knowledge of the published literature on the topic under investigation;
- evidence of the ability to make critical use of published work and source materials;
- an appreciation of the relationship between the research topic and the wider field of knowledge;
- the ability to present the work at an appropriate level of literary quality.

A Doctoral Thesis Demonstrates

- all of the above, plus:
- a distinct contribution to knowledge, as shown by the topic under investigation, the methodology employed, the discovery of new facts, or interpretation of the findings (Paltridge and Starfield, P.56)

Accordingly, the doctoral thesis differs from a master's research degree by its deeper, more comprehensive treatment of the subject under investigation. Besides, the student is expected to have an expert and up-to-date knowledge in his/ her area of study.

Writing Thesis and Dissertation

There are almost no generally accepted rules for thesis preparation. The structure varies from country to country, from institution to institution and even from professor to professor in the same department of the same institution (Gustavii, 2008). In the beginning of writing a thesis, the students should consider the regulations of their university. In case of lack of information in the regulations of the university about writing thesis, the students should go to department/ university library and examine the theses submitted by previous graduates of the university generally and their department in particular, especially outstanding ones. Besides, the graduate students should have knowledge of the international standards of writing dissertation. This can

be attained through access to the websites of some universities, which allow access to their databases. A very good website, which entails subscription, is '*ProQuest Dissertation and Thesis*', which shows well-written and high quality dissertations and theses in several fields.

Generally, a thesis has three parts: preliminary part, text part and reference part. As for the preliminary part, it is written in the final stage of research. It includes, cover, certificates, acknowledgement, dedication, table of contents, abstract, etc. Regarding the text part, it constitutes the main part of the thesis or dissertation. It starts with introductory chapter, which deals with researcher's plan to conduct the study. It is in the introduction that the writer makes claims for the centrality or significance of the research in question and begins to outline the overall argument of the thesis. The thesis writer who is seeking to enter a community of scholars needs to establish in the introduction how the thesis relates to and builds upon previous research in the field (Partridge and Starfield, 2007). The introductory chapter contains overview, rationale, statement of the problem, research questions, significance of the study, limitation of the study, structure of the study and methods and terminology definitions (Bell, 1999).

As for literature review, there are a number of purposes for reviewing the literature when writing a thesis or dissertation. One important purpose of a literature review is to contextualize the student's research. This means that the researcher broadens the perspective of research by reviewing related literature and then narrows the topic of research till he or she specifies the research questions (Seliger and Shohami, 1989). To be specific, the researcher should describe and synthesize the major studies related to the topic of his or her research. It should also demonstrate the relationship between the student's project and what else has been done in the particular area. An important feature of the literature review that many students are not aware of is the need for it to be an extensive review of previous research, right up to their date of examination (Paltridge and Starfield, 2007). This is especially the case at the doctoral level where the review of the literature is expected to be at a 'state-of-the-art' level (Paltridge and Starfield, 2007). That is, the student needs to show that they are aware of research relevant to their project that has been published right up to the point of submitting their thesis for examination (Bell, 1999).

A literature review needs to focus on the major findings of the studies that are reported on, when they were carried out and who they were carried out by. Reports on studies directly related to the student's project should be discussed in more detail, including information about the methodological approach used, data collected and analytical procedures used on the study.

(Paltridge and Starfield, 2007). The literature review should be written critically in a sense that the writer should show the strengths and weaknesses of other studies, not just presenting factual information about the studies that are being reviewed.

Besides, literature review should be written synthetically, not introducing the literature as separated items. As for organization, it can be arranged to “*the research questions to be asked, various topics and sub-topics that are central to the study, variables in the study, chronologically from oldest to more recent research, different points of view or a combination of these*”.(*ibid*, p.101)

The Methodology section deals with how the research was conducted and how the data were obtained. This means that it deals with design of research (i.e. experimental research, action research, survey, etc.) and instrumentation (methods of collecting data such as questionnaire, interview, etc.) (Cohen and Manion, 2007). This section will require a detailed description of the research processes and procedures as well as an explanation of the reasons for doing so. Writers should consider the extent to which the method(s) chosen have shaped their data. Knowing how the data were collected helps the reader evaluate the validity and reliability of the results as well as the conclusions that are drawn from them (day, 1998). Replicability of the study is also an important consideration and is another reason for the detailed description of methods and procedures.

Successful “Results section” is never mere presentation or reporting but always involve selecting and ordering the data in a way that is designed to guide the reader to understand what is reported on in such section (Cohen and Manion, 2007). The writer needs to show the significance of the data he reaches at and how it is different from others’ researchers’. The issue of logical presentation is crucial in presenting the results. Linking figures and tables to text and selecting which data to highlight then becomes very important as the ‘argument’ is built up (Partridge and Starfield, 2007).

In discussion section, the student should move beyond their data and integrate the results of their study with existing theory and research (Rudestam and Newton, 2001). They added that a good typical discussion contains the following:

- An overview of the significant findings of the study
- A consideration of the findings in the light of existing research studies
- Implications of the study for current theory (except in purely applied studies)
- A careful examination of findings that fail to support or only partly support the hypotheses outlined in the study
- Limitations of the study that may affect the validity or the generalizability of the results
- Recommendations for further research
- Implications of the study for professional practice or applied settings (Rudestam and Newton 2001, P.121)

An abstract is the summary of the thesis. It is the mini-version of the dissertation or thesis. It is a summary of the text that informs readers of what can be found in the dissertation and in what order. It is written mostly after the researcher has completed the research. The Abstract typically aims to provide an overview of the study which answers the following questions:

- What was the general purpose of the study?
- What was the particular aim of the study?
- Why was the study carried out?
- How was the study carried out?
- What did the study reveal? (Partridge and Starfield, 2007, P. 155).

The Structure of Theses and Dissertations

The structure of the thesis is not fixed since there are many factors that influence its organization. Among these factors are the research perspective followed in the study, the purpose and the regulations of the academic institutions (Prior, 1995). It is also influenced by the values and expectations of the academic discipline in which it is produced and will be assessed (Partridge and Starfield, 2007). In doing so, the student scholars should be exposed to the range of patterns of how to organize a dissertation and thesis.

A thesis typically commences with 'introduction' and 'review of the literature' sections. It is then followed by 'general methods' section which is followed by a series of sections that report on each of the individual studies. The thesis ends with a general overall conclusions section.

Table 3: Shows the Typical Content of Individual chapters

<i>Chapter 1: Introduction:</i> General background information on the project, research problem Purpose of the study Hypotheses or research questions ,Scope of the study ,Significance of the study, Definitions of key terms ,Organization of the thesis
<i>Chapter 2: Literature review</i> General review of relevant literature Specific topics directly relating to the issue under investigation How previous research suggests the study is important to do. The gap in the research that the study will fill
<i>Chapter 3: Conceptual framework and/or methodology:</i> Research design Methods used to collect data Research instruments, Methods used to analyse the data, Details about who, how, when and why For ethnography, description of the setting and participants, Issues of ethics and consent
<i>Chapter 4: Results:</i> The findings of the study, described under themes that emerged from the data, under the research questions or under the data collection techniques that were used
<i>Chapter 5: Discussion and conclusions:</i> A re-statement of the research problem, A re- statement of results, Discussion of what was found in relation to previous research on the topic Limitations of the study Implications for future research.

(Cited in Partridge and Starfield, 2007, P. 76)

Review of Dissertation and Thesis

Reviewing a dissertation and thesis is the concern of the academic institutions. Every academic institution has its own regulations that judge the quality of the thesis and dissertation. The acceptance of a thesis and a dissertation depends on meeting the regulations of academic institutions.

The primary readership of dissertations and theses is examiners (ibid). In some cases, the student's supervisor may be one of the examiners and in other cases they may not. If the supervisor is not one of the student's examiners, they will be a secondary reader of the student's thesis. This difference between 'primary' and 'secondary' readerships is significant, and is often not immediately obvious to students. In the case of thesis and dissertation writing, it is the primary reader that is the final judge as to the quality of the student's piece of work, rather than the secondary reader. Kamler and Threadgold (1997: 53) point out "*a dominant or 'primary' reader within the academy, 'quite simply counts more than other readers'*". It is important, then, for students to consider the examiner who can either accept, or reject their work. Therefore, their writing should be coherent and consistent with the conventions of the target discourse community (Paltridge and Starfield, 2007).

Conclusion

Having introduced the distinction between research paper, dissertation and thesis in terms of the writing process, structure, review, purpose and audience, it becomes clear that research have the same basic features whatever the type, style, length and depth. The terms 'thesis and dissertation are similar in a sense they are conducted as a requirement for fulfilling an advanced academic degree, however they differ in terms of the type of academic degree and the level of depth and breadth in their investigation. As for research paper, it is different from the former research in a sense that it is not submitted to get an academic degree. Besides, it is brief, succinct and informative due to its word limit, having all the characteristics of the former research.

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