



**Liverpool John Moores
University**

Faculty of Engineering and Technology

PROJECT GUIDELINES

**M.Sc. in Data Science /
M.Sc. in Machine Learning and
Artificial Intelligence**

Academic Year 2021-2022

MSc Project Guidelines

Content Outline

PART 1: Project Guidelines	3
1. Introduction	3
2. Project Selection Procedure	5
3. Project Proposal	6
4. Project Execution	7
5. Project Duration	8
6. Project Assessment	9
6.1 Interim Report/ Mid-Thesis Report	9
6.2 Final Dissertation	10
6.3 Final Presentation	11
6.4 Final Advice	12
 PART 2: Guidelines to Writing-Up Reports and Final M.Sc. Dissertation	 13
2.1 Overview of Writing -Up Requirements	13
2.2 Sample Report Detailing Good Technical Writing Practice	14
2.2.1 Limitations	14
2.3 Organisation and Format of the Thesis	15
2.3.1 Structure of the Thesis	15
2.3.2 Preliminary Pages	16
2.3.4 Additional	18
2.3.5 The Final Draft	20
References	21

PART 1: Project Guidelines

1. Introduction

A major distinguishing feature of the Masters Programme is the project for which you are required to write a dissertation. The project represents an important component of the MSc Programme. It is a major piece of work with significant elements of research and innovation.

The aim of the project is to develop the student's ability to plan, execute and report in depth on a major research investigation related to data science/machine learning. This work enables students to display all of the skills learnt on the programme and give the opportunity to demonstrate creativity, initiative, ingenuity and communication in an academic context. This may be carried out, where appropriate, in conjunction with industry.

In terms of the complete Masters Programme, the project/ thesis represents a significant component:

- 70 credits (out of 180 for the complete MSc Programme)
- 600 hours work (representing around 4 months full time effort)

The students will be required to submit a Project Dissertation and undertake oral presentations of their work. In order to gain the Masters award, a student must satisfy the examiners and the assessment board in respect of this module.

To carry out the project, the students will be expected to:

1. Work independently. The Thesis supervisor's role is a mentor rather than a tutor. This means that the supervisor will be able to offer advice concerning the level, structure and content of the project but will not define detailed aspects of the work. The supervisor will normally offer advice in the form of *objectives* rather than *actions*. You will be given a considerable degree of independence in the execution of your project and it is your responsibility to seek academic advice from the thesis supervisor during the mutually decided timings.
2. Analyse problems and implement solutions using experiences and skills gained during the MSc Programme. However, you should be willing to learn and practice on your own initiatives, new experiences and skills as

necessary. This situation is most likely to emerge during the conduct of MSc projects.

3. Research the particular domain or topic in which the investigation takes place. This is to emphasize that MSc projects should involve a research element.
4. Structure and write a major dissertation, mainly to report on all your findings, results and conclusions.
5. Develop the ability to explain and defend the dissertation both during its formulation and drafting, and during the presentation on completion.

To guide students in aspects of the level, structure and content of their project, they will be allocated a Thesis Supervisor who will act as the Mentor. Whilst students are assigned Thesis supervisors, their role is one of mentors rather than tutor; offering academic advice and support where appropriate and assessing the end result. Hence, the degree of independence associated with the project is considerable. An important point to understand about projects and project supervision from the outset is that you are responsible for your project and its progress. Your supervisor provides help and guidance, but ultimate responsibility for your performance, particularly in terms of ensuring that you work steadily and sensibly on your project in an organised way over the academic year, rests with you.

Like other components of the MSc Programme, the project will be assessed. The exact nature of the assessment will, to some extent, depend on the project. But despite this degree of variability, the assessment will be made up from the following components:

Course 1 - Research Methodology (10 credits)
100 % Research Proposal submission

Course 2 - Dissertation (60 credits)
90% from the project dissertation (i.e Final Thesis Report)
10% from the final oral presentation (Video Presentation submission)

Assessment will be carried out by the Thesis Supervisor, an anonymous second marker, an LJMU Moderator, the Link Tutor (Subject Specialist) and, where appropriate, the External Examiner.

2. Project Selection Procedure

A project may originate from three possible sources:

- A member of academic staff at LJMU
- Student's place of work
- The student's own ideas (based upon their work experience, as appropriate)

In the above cases, a thesis supervisor will be allocated to the student, in consultation with the Link Tutor/LJMU Moderator. In projects with a significant industrial component (i.e. carried out largely or wholly in an industrial environment) there also needs to be an industrial supervisor.

When selecting a project, two conditions apply:

- Make sure you think of your strengths, interests and future plans. These three factors will help to ensure that your project is not only a useful learning experience but also a pleasant one.
- You should not have executed the project before either at work or previous studies. You can build on previous work or others' ideas, in which case, you are expected to acknowledge this in your final thesis. Failure to do so may result in convictions of plagiarism, which may lead to NOT being awarded an MSc degree.

You are required to fill in a Project Topic Submission Form and submit them in LJMU Canvas [or] UPGRAD platform before the deadline.

Students should list the project title (Minimum THREE) with brief description in Project Topic Submission for approval before the stipulated deadline. If the proposed title does not meet the required standards, the LJMU moderator /LJMU Link Tutor can reject it and ask for revisions before you can proceed with the research proposal.

You need to start thinking about your project as soon as you start the Research Methodology course. Then, you will be allocated a thesis supervisor who will advice you with the project proposal. You are required to submit a project proposal at the end of the Research Methodology course.

3. Project Proposal

This should cover the details of the planned project, which will consist of the following essential points. You may add other points as you think appropriate to your particular project. This should be completed in consultation with your Thesis Supervisor, and, if in any doubt, the LJMU Moderator/ Subject Tutor can be consulted too. Points to cover are:

- A Project Overview presenting an introduction to the topic and the aims and objectives of the project.
- A survey of the main results from the literature available on the topic;
- A discussion about the Methodology and Specification of anticipated project final Deliverables,
- A Project Work Plan showing a programme of work with associated staged deliverables and time schedule. It is very important to set yourself a time schedule using short time scales like one week or two weeks at most. Please include: starting date/tasks to do/end date/deliverables expected at the end date. This will help you monitor your progress and take the necessary steps, if problems occur before it is too late.
- Resources needed: specific hardware/software or other project-specific requirements

It is very important to have a vision of the whole picture even before the project actually starts. That is, a vision of what you want to do, what you are trying to achieve, and what you expect the outcome to be. Please note that the details you describe for these points can be revised to a certain extent at any stage while you are progressing in your work. This is acceptable as long as you stick to the essence of your project's aim and objectives. For example, it is only natural to change the organisation of your chapters and titles as many times as you like whilst work is progressing. It will be acceptable even if the final organisation of the dissertation is totally different from that suggested initially, as long as it is centered around the project's theme and presents your results logically.

NOTE: Please refer to the Research Methods Coursework Specification to find the details about the Learning Outcome, detail of the tasks and marking scheme.

- 7636UPGRAD (ML)
- 7637UPGRAD (Data Science)

4. Project Execution

The Thesis supervisor will be responsible for directing the project. This role should be seen as Mentor rather than Tutor. This means that he/she will be able to offer advice concerning the level, structure and content of the project but will not define detailed aspects of the work. Students will normally be offered advice in the form of 'objectives' rather than 'actions'. They will be given a considerable degree of independence in the execution of their project and it is their responsibility to seek academic advice from the Supervisor when they feel it is appropriate.

In order to carry out this supervisory role, the Supervisor will require the student to agree to a Research Proposal, and set up regular calls. After completing the Project Proposal Topic Submission Form and the Research Proposal in agreement with your supervisor, they should be digitally signed by both you and your supervisor. To ensure that students make satisfactory progress during the execution of their project, they should ensure that they maintain regular contact with their Supervisor. The frequency of these meetings should be sufficient to ensure that satisfactory progress against the Project Plan is maintained.

Changing the project, in any way, from this agreed specification might only be done with the written permission of your supervisor and LJMU Moderator. This written permission should take the form of an amended Project Topic Submission Form signed by you and your supervisor. Always keep in touch with your supervisor and keep him/her informed of what you are doing. Bear in mind that the project's academic content is what matters, so just, for example, writing a computer program, however big and complicated, is unlikely to be enough.

In cases of the industrial project, the immediate progress will be monitored by the Industrial Supervisor. The Academic Supervisor will meet the student less frequently in these cases. It is particularly important, therefore, that students keep their Academic Supervisor informed of progress through regular written and/or telephone contact. They will be expected to agree the form of this contact with their Supervisor at the start of the Project.

5. Project Duration

You should complete your work and submit your dissertation for final assessment before the stipulated deadline.

Please note the following:

- If no submission has been made within these deadlines, normally, the student will then have failed the project module.
- These deadlines may be extended only when the LJMU moderator and LJMU Link Tutor agree on a new deadline due to justifiable circumstances.
- Projects submitted outside the deadline due to legitimate circumstances will be considered in the next Board of Examiner.

This seems like a long time but is actually a short period of time to produce such a significant piece of work as your project. Consider the competition for all your other work, and then you can feel the pressures that your project will be under. The time you will be able to allocate for your project will be limited. It is vital that you work steadily on your project over the 4 months. There is great temptation to feel that you can leave your project work until later. Doing this will inevitably cause serious problems which it is unlikely you will be able to overcome in the time available to you.

Start on top of your project, stay on top of it and finish on top of it!

Plan your work, so that all of the technical work should be completed within a reasonable time. Give an appropriate time allowance for writing up your final dissertation (also called thesis). Depending on your writing skills, this varies from one student to another, but on average, you will need at least what is equivalent to three to four weeks of full time hours. During this period of time, until the hand in date, you will be writing up your final thesis and, if needed, filling in any gaps as necessary. In total, you are expected to spend 600 hours work to complete your project, from start of project to submitting your dissertation.

6. Project Assessment

The exact nature of the assessment will, to some extent, depend on the nature of the project. However, marks for the project break down as follows:

Course Research Methodology (10 Credits)	
<i>Content</i>	<i>Mark</i>
Research Proposal	100%
Course Dissertation (60 Credits)	
<i>Content</i>	<i>Mark</i>
Interim Report	Formative
Project Dissertation**	90%
Final Presentation	10%

** This is an assessment of the overall technical and research progress achieved, and the overall write-up of the final dissertation.

The main assessor of the project is your Supervisor who will check the thesis format, and the evaluation will be done by LJMU Moderator/LJMU Academic Team, and where appropriate by External Examiners.

6.1 Interim Report/ Mid-Thesis Report

The interim report describes the state of your project, for the period that covers the start of the project until the submission of the interim report i.e. roughly 2 months from the approval of your proposal. It should include:

- A copy of the Project Proposal Form and the Thesis Proposal with a more detailed project plan. If needed, the drafts initially submitted may be revised at this stage for inclusion in the interim report.
- A literature review to survey relevant research work that is related to your project.
- Progress made to date (a review of work undertaken to date, any results obtained, problems and solutions).
- Specific and general difficulties encountered

- Plan (with a time schedule) of how you intend to proceed to the next, remaining work, risks, etc.

Make sure that you write a good interim report and take it as an opportunity to build up information for the final dissertation. It helps you organise your thoughts, which will facilitate a smoother continuation of the work.

Important Note: Your supervisor is entitled to request that you submit regular short progress reports (every 2 weeks or so). This should be seen as a good opportunity to build up for writing the final dissertation, and not as unpleasant pressure! It will help you organise your thoughts and link all parts cohesively. It is advisable that even if the supervisor/ link tutor does not request these regular reports, you should be self-motivated to do so.

6.2 Final Dissertation

This should describe the research, methodology, analysis and design, model/implementation, findings, and conclusions of the Project. The students will be required to submit a Thesis Report and submit a video presentation of their work along with Thesis Presentation in PowerPoint format. Based on the discretion of LJMU Academic Committee, a student might be asked to make a Live Thesis Presentation.

The dissertation should describe your entire project including all results and conclusions. The dissertation's content is the main means by which the technical work and research conducted are assessed. This forms the main bulk of the mark. The dissertation writing up is very important too and should give a good impression of your effort for the whole duration of 4 months. Your dissertation should conform to LJMU standards and good technical writing practice. Guidelines to dissertation writing-up is attached to help you in this task (see Part- 2 of this document).

You should complete your work and submit your dissertation for final assessment before the deadline. These regulations apply in regard to final thesis submissions:

- If no submission has been made within these deadlines, normally, the student will then have failed the project dissertation module.
- These deadlines may be extended only when the LJMU Moderator and LJMU Link Tutor agree on a new deadline due to justifiable circumstances.

Do not leave writing up of your Thesis Report until the last minute. A hastily written dissertation will not reflect well on your work and will mean that however good your technical work the marks you receive will be significantly less than they might otherwise be. As with all aspects of your project you should allocate time for writing up and make sure you stick to your plans. A good approach is to write short pieces on your project during the year so that when you come to the time for completing your dissertation you have a body of work on which you could put together as a cohesive story.

Important Note: Please note that it is very important that you should show the final thesis to your supervisor for his/her approval before you submit it. It is important too that you should give it to the supervisor at least two weeks before it is due for final submission, to allow him/her enough time to read it and approve it, and suggest changes before it is too late. Remember that the final dissertation is a reflection on your efforts, and therefore, it is in your best interest to get the supervisor's advice and approval on this matter.

6.3 Final Presentation

Towards the end of your project, you will be expected to prepare PowerPoint slides and submit a video presentation. Marks are awarded for the quality of the presentation. A detailed and tedious description of technical work will be marked lower than an interesting discussion of how your project has developed, the interesting problems you looked at, the research points tackled and how you might develop the work further.

You should stick to the time given to present your talk (i.e. 15 minutes). You will be marked down if you do not manage your time properly. These are some guidelines for the presentation, to help you be precise, but straight to the point:

- Slide-1: Project Title, Student Name (When you present this Slide, you may introduce yourself and the motivation for selecting the project).
- Slide-2: Outline of the talk. On this Slide, just show a list of the headings that you intend to cover in your talk. This varies from one project to another. Normally, a list of these points in this sequence is recommended:
 - Project main aim and objectives
 - Literature Reviewed and main Findings
 - Theory or Model
 - Analysis and Design
 - Development or Implementation
 - Evaluation

- o Main Contribution to Knowledge
- o Possible Future Work
- o Evaluation of the Experience as a whole.

- For each of the heading listed on Slide-2, you may prepare a Single Slide with bullet points of main points (for example, to discuss methods used or/and main results obtained, under each of these headings). You may also have Screen Dumps of diagrams, or pictures, which you could discuss verbally.

NOTE: Please refer to the Dissertation Coursework Specification to find the details about the Learning Outcome, detail of the tasks and marking scheme.

- 7610UPGRAD (ML)
- 7611UPGRAD (Data Science)

6.4 Final Advice

You should have few problems (if any), provided you work sensibly and in an organised way. The project is a chance for you to work on something that interests you; take the opportunity to enjoy the work. The golden rules for good projects are:

- Consult your supervisor regularly.
- Work steadily throughout the 4 months.
- Make writing down notes, small essays or reports, a habit.
- Read research articles in scientific journals for efforts similar to your work and the latest in the field. Keep copies of the articles you find useful and full information of their sources.
- Talk to someone early if you have difficulties.

PART 2: Guidelines to Writing-Up Reports and Final M.Sc. Dissertation

Writing-Up is a very important skill that you are required to develop during the MSc Programme. During the lifetime of the project, you will be asked to write Project Proposal and an Interim Report, and towards the end of the project, you are required to write and submit a Thesis. This has to be completed in a professional scientific manner to produce quality documents. The Interim Report and the Final Thesis are marked on the quality of the technical work achieved as well as on the writing style.

2.1 Overview of Writing -Up Requirements

The following requirements shall be adhered to in the format of all written reports, and most importantly, the Final MSc Thesis submitted:

- Reports and Final Thesis should be presented in English, in A4 format.
- An Abstract of approximately 300 words should be written to provide a synopsis of the work completed. This includes stating the nature and scope of the work undertaken, and of the contribution made to the knowledge of the subject treated.
- Should include a statement of the candidate's objectives and shall acknowledge published or other sources of material consulted (including appropriate bibliography) and any assistance received, from people, like your thesis Supervisor, Subject Tutor, and others.
- The text of the Final Thesis should normally about 12,000 words.
- Dissertation shall be presented in a permanent and legible form in either typescript or print.
- The formatting styles and referencing guide (Harvard Reference) are given in the separate documents.

2.2 Sample Report Detailing Good Technical Writing Practice

One of the features of many Courses/Programmes at universities is a project for which the student is required to present a formal report or thesis. Many students are not aware of the work involved in preparing and writing this report with the result that it is often poorly written.

Part of the problem is that many students do not regard writing as an enjoyable and essential part of their work. It is often done quickly and inadequately. Project work is, however, of little value unless others know about it, and this communication of the work is as essential as any other aspect of the project.

This booklet is a short guide to help students write better reports. It suggests guidelines, not rigid rules, for organising the material, presenting the material in an appropriate style and producing a well laid-out final report.

The booklet is concise mainly to encourage the student who would not normally spend time on this most important aspect of his project to avoid at least some of the basic errors in writing up.

2.2.1 Limitations

This booklet is a short guide to help you produce a good project report. It is not as detailed as many of the larger texts on the subject. For example, though stylistic principles are suggested, the problems of English grammar, punctuation, and spelling are not examined in any detail.

Every project and thesis supervisor will have different requirements. You are therefore advised to consider the guidelines suggested in this booklet in the light of the advice given to you by your supervisor.

Finally, this guide will only be useful if you allow sufficient time for writing the report. You should think about the report at all stages of the project. It is helpful to practice writing specimen sections, which may be of use later, as you proceed with the project. Your thesis supervisor may be prepared to comment on your proposed structure and on the style and level of detail of a draft section or chapter. You should consider the tasks discussed in this booklet early in the project and make a time-table for each stage in the production of the report. This time-table should be discussed with your supervisor who will check that you have left sufficient time for writing the report. You should allow time for correcting the drafts. Remember also that producing text and inserting diagrams may take several days or even weeks.

The structure of the report as a whole is examined in section 2.3. This is, in

effect, an analysis of the table of contents for the report. The structure of the main body of the report. The processes of selecting and ordering the material are examined.

Aspects of English usage are discussed in section 2.3.4. Illustrations and computer program documentation are also introduced. The final section covers the revision of the drafts and the layout for producing the final draft.

These guidelines were adapted from a basis draft initially produced by D. Avison of the University of Aston in Birmingham. Thanks to John Pardoe and Sandi Duffy for their input and comments.

2.3 Organisation and Format of the Thesis

2.3.1 Structure of the Thesis

A thesis is made up of three main parts namely preliminary pages, text and references. These are arranged as in Table 1.

Table 1. Arrangement of parts in a thesis

S. No	Subject*	Status
1.	Cover page	Compulsory
2.	Dedication	Optional
3.	Acknowledgements	Optional
4.	Abstract	Compulsory
5.	Table of Contents	Compulsory
6.	List of Tables	Compulsory (If any)
7.	List of Figures	Compulsory (If any)
8.	List of Symbols/Abbreviations/Notation	Compulsory (If any)
9.	Body of Thesis	Compulsory
10.	References	Compulsory
11.	Appendices	Compulsory (If any)

*The samples are available in the UpGrad platform or LJMU Canvas

2.3.2 Preliminary Pages

2.3.2.1 *Title Page*

Include the following in the title page:

- The title of the report
- The name of the author
- The qualification for which the report is a part
- The name of the department and institution
- The date of completion of the report

The title itself should be short and yet aim at indicating the content of the report as accurately as possible.

2.3.2.2 *Abstract*

This summary of the report should be no more than a page in length and should, like all elements of this structure, begin on a new page. Though it is placed at the beginning of the report, it is written after the main body of the report, which it summarises, has been completed. It gives the potential reader a framework showing the main features of each section of the report, including any conclusions reached. It is therefore both self-contained and self-explanatory.

2.3.2.3 *Acknowledgements*

This section should be used to acknowledge your Supervisor, the Subject Tutor, and other individuals who have helped you and guided you to complete your project. Also, an acknowledgement for the use of facilities or help from particular sources may be recorded here.

2.3.2.4 *Contents*

The table of contents gives the reader a detailed structure for the report by giving headings and associated page numbers. The title, abstract, and contents page thus give the potential reader information from which he can determine whether the report is relevant to him.

2.3.2.4 Introduction

The introduction has a number of purposes and its contents will vary according to the type of work being reported. It can be used to provide background information to the problem under discussion. The introduction may be used to state the aims of the project, and also to discuss the approach used by the student in carrying out the project. It may also give the reader an outline of the work, and hence make apparent its purpose, methods, and scope.

Having clearly stated the problem area that you have investigated, you should state your results. As [Trelease, 1969] argues: 'The introduction should state clearly and definitely the most significant result of the investigation... The reader is (then) able, as he goes through the paper, to judge the development of evidence and inference brought forward in its support.' The evaluation or explanation of the results should be further pursued in a later section of the report. The limitations of the project, as well as its achievements, may also be discussed in the introduction. This could include the reasons for any disparity between the original terms of reference for the project and its achievements.

2.3.2.5 Body of the Report

This should include the information obtained during the project work and the discussion it contains will normally lead to the conclusions and recommendations of the report. The framework and contents of the main body of the report may be determined by the processes of selecting and ordering. The use of headings and subheadings and their numbering, (for example, '2.6. Body of the Report'), give the reader the landmarks for this structure and therefore show how the report is developing. So as to maintain the reader's interest and understanding, good English and style are important in communicating the material.

2.3.2.6 Conclusion and Recommendations

The conclusion does not usually present any new idea. It may simply summarise the discussion in the main body of the report or the results achieved in the project and their evaluation. This section may, however, be used to make points which link your project to other areas and to recommend ways in which the study may be developed.

2.3.2.7 Appendices

An appendix is used for material which, though relevant to the subject, is particularly detailed or lengthy and if included in the main text would distract the

reader from the main theme. Computer printout and other systems and program documentation will normally be included as an appendix.

2.3.2.8 References

Where reference is made to a text or paper, full details of that reference should be given in this section. One method of citing references, used in this booklet, is to give the author's name and reference number when quoting from a work. The reference numbers are allocated consecutively as required. The relevant page numbers of the citation are given amongst other details in the list of references.

2.3.2.9 Bibliography

This further list of references give the opportunity to acknowledge those works which have been extensively used in the preparation of the report which make useful additional reading. You should add comments to each entry.

2.3.4 Additional

2.3.4.1 Illustrations

Where appropriate, illustrations can be a very good way of conveying information. The use of tables and graphs can also have considerable impact in expressing relationships. So as not to reduce this impact, it is preferable to keep the information in graphs and tables to essentials, though they should be comprehensible without reference to the text. Avoid too many columns in a table so as to include only the most important relationships. If necessary, extend the information over a number of simpler tables.

There are a number of types of diagram which can be used. These include:

- Histograms
- Graphs
- Pie charts
- Flowcharts

2.3.4.2 Code Documentation

If you have written code as part of your project, you must provide documentation. This would normally describe their purpose, design, construction, use, and maintenance. Some of this information can be provided in the listing itself. Good layout, particularly the use of appropriate indentations, will make your programs much more readable. The exact nature of the program documentation required should be discussed with your project supervisor. Program documentation is normally given in appendices.

2.3.4.3 Use of English

The style of writing must maintain the interest of the reader, and allow him to interpret the meaning of your report correctly. This requires the use of English to be clear, interesting, and informative. Gowers [Gowers, 1977], amongst others, discusses English usage in detail, but the principles can be stated here. These principles aim at simple, readable English. Flowery language, long words and complex sentences hinder good understanding.

Whenever there is a choice, use short words. A project report, however, is to be read by people who understand the subject of the report and therefore the use of technical terms will be appropriate. It may be helpful to define these terms in a glossary, particularly if there can be a number of interpretations for a word or if you have used it in a non-standard way. Specialist dictionaries may help in defining terms and concepts. There may also be authoritative definitions in the particular area of your project such as those provided on databases and programming languages. Make sure that the use of these technical terms is helpful. Gowers [4] gives examples of writing by computer people where jargon is confusing. In these examples the technical terms are probably meant to impress, rather than inform, the reader.

Long and complex sentences are difficult to organise clearly. It may be better to break these up into smaller sentences. A paragraph should normally discuss only one topic. A sequence of short sentences and paragraphs can, however, be a source of irritation to the reader.

Understanding is reduced by vagueness in sentences. This vagueness is either due to the unwillingness of the writer to commit himself, his desire to 'pad' his material, or his lack of understanding of the subject.

Care should be taken with spelling, punctuation and grammar. A good dictionary, such as the Concise Oxford English Dictionary, should always be at the side of a writer so that spelling may be checked. Whenever there are alternative spellings for a word, choose one and use it throughout the report. Good punctuation is also an aid to achieving clarity. To correct any deficiencies in grammar and punctuation refer, for example, to Gowers [Gowers, 1977] or Close [Close 1975].

The style of a project report should be formal. To put it simply, this means that you should not write as though you were talking to a friend. Therefore avoid abbreviations, contractions (such as can't), exclamations, emotive language (such as 'disastrous'), and slang. The use of 'I' is a subject of much debate, but usually the third party is preferred rather than using 'I', or 'We', etc. (the first person).

If a quotation is short, it may be included within a sentence. Longer quotations, as Parsons [Parsons 1973] points out, should 'be preceded by a colon, set off from the text and indented'.

2.3.5 The Final Draft

It is essential to allow time to amend the first draft of the report. This is usually better written without pausing which tends to hold up the flow of ideas. Many reports are the result of several drafts.

You will gain from the comments of your supervisor and colleagues and you must allow time for this.

O'Connor and Woodford [O'Connor et al 1975] suggest:

'It is a waste of time trying to improve stylistic details before you are sure that the sections, paragraphs and sentences are in the right order, that all the essential points have been included and any superfluous ones removed... examine everything... for logical order, accuracy, consistency and truth'.

When the report is structurally correct, the style of the report should be examined.

- Have you expressed yourself clearly without being patronising or casual?
- Are the spelling, grammar and punctuation correct?
- A colleague or your supervisor may be particularly helpful in pointing out stylistic deficiencies.

2.3.5.1 Layout and Final Draft

Unless the appearance of the report is good, a potential reader may not bother to read further and an examiner may be biased against the work from the outset.

Finally, always make regular back-up copies as the loss of work can cause many problems.

2.3.5.2 Conclusion

It is hoped that you are now aware of the nature of the task that confronts you. The success or failure of this booklet will depend on your answers to the following questions:

- Is the material factual, up to date, relevant, and complete?
- Does the structure of the main body of the paper flow well? Is it logically sound?
- Is the table of contents correctly completed with page and section numbers and meaningful headings?
- Is it written in a clear, informative, and interesting manner? Is it well set out?
- Most importantly, are the contents, structure and style suited to the target audience?

References

Close, R.A., *A Reference Grammar for Students of English*, Longman, 1975.

Gowers, E.G., (revised by B. Fraser), *The Complete Plain Words*, Penguin, England, 1977.

O'Connor, M. and Woodford, F.P., *Writing Scientific Papers in English*, Elsevier, Amsterdam, 1975.

Parsons, C.J., *Thesis and Project Work*, Allen and Unwin, London, 1973.

Trelease, S.F., *How to write Scientific and Technical Papers*, M.I.T. Press, Cambridge, Mass., 1969