Guidelines for the Individual Project Dissertation

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Please note that these guidelines are intended to be used by the students that I supervise and are based on my experience supervising UG and PGT student projects. Other supervisors might have a different view on the issues discussed in this document. Keep in mind that your individual project is worth many credits, so it really **deserves time and effort**. You should **aim to dedicate at least as much time and effort as you would spend studying modules totalling 40 or 60 credits** depending on the type of project that you are doing. It is usually the case that a high grade being awarded to a project is the result of discipline investing time and reporting progress regularly throughout the whole project.

The concept **dissertation** can be seen (not necessarily) as equivalent to the concept **thesis**. A subtle difference is that dissertation can be defined as the written document that describes the *path to formulating a thesis*, and a thesis can be defined as *an intellectual proposition or statement that is put forward to be maintained (defended) by arguments against objections*. Developing your project should result in a dissertation that expresses a thesis.

Writing a Project Plan or Proposal

"The more you over-promise, the more likely you will under-deliver"

Usually, a project plan (project proposal) is required for PGT projects, is no more than a few pages, and it should be prepared within the first few weeks of starting the project. Once you have a clear idea of your project, the purpose of the project plan is to describe in sufficient detail what the project is about and the plan for execution. The project coordinator provides a proposed template with the sections to include in the project plan. You can follow that structure or a variation, but it is important to cover the following points.

1. **Motivation for the project** giving rationale for conducting the proposed research and/or building the proposed system.
2. **Description of the intended system/research** identifying features, components, intended users of beneficiaries, and any preliminary work (e.g. conceptual models or GUIs) already completed.
3. **Concise review of related work** including scholarly literature and other relevant resources.
4. **Intended contribution** from the project stating the intellectual and possible technological contribution that is expected from the project in reference to existing knowledge and systems.
5. **Methodologies and tools** that are being considered to execute the project which of course could change as the project progresses and better understanding is achieved, it is also important to outline the approach to conducts tests and evaluate the project.
6. **Project stages and timeline** that indicate a coherent approach to execute the project and achieve the intended contribution, identifying risks and mitigating measures would also be welcome.

For more guidance about preparing a project proposal, see (Dawson, 2005) who suggests the following actions:

1. Introduction to the area
2. Current research in the field
3. Identify a gap in the field
4. Identify how the project fills the gap
5. Identify solutions and risks

The project coordinator provides the marking criteria for the project plan. In general, it is expected that a high-quality project plan provides:

- Evidence of **understanding** of what the project entitles (deeper understanding should be achieved later).
- Context and justification for the project, reflecting the **intended contribution** (new ideas, innovations, theories, results).
- Insight into **your own arguments, ideas and concepts** in relation to the project.

Other points to consider when writing the project plan are as follows:

- Use a **project title** that clearly describes what the project is about without being too general or vague. The title is very important to communicate the purpose of your project and it should not be too long or too short. Note that you can choose the final title in your dissertation reflecting what was achieved.
- Provide the necessary **background information** to set the context and understand the project. At this point, some review of existing work in the literature (articles, books, existing systems, etc.) is also expected.
- Write a clear **description** of the problem and the proposed solution. Describe the project **motivation** and the expected system requirements. It is important to identify clearly the project's **suitability and relevance** with respect to your degree and explain the importance of the project.
- Define clear and achievable **aim and objectives** for the project. The project aim is the overall purpose of the system to be developed and written in a clear and unambiguous manner. The objectives are more specific and measurable in relation to the system requirements and the objectives build towards the aim. That is, the objectives contribute to achieving the aim and overall purpose. The objectives represent components of the project usually in chronological order and are used to measure project progress and completion. There should be a **clear outcome** that will benefit someone. It is also very important to clearly establish the **scope and limitations** of the project as this will help you to keep focused.
- Identify clearly the **distinctive features** of your project that make it a challenging and innovative idea. If there are existing similar systems, that is OK, but make sure you describe those alternatives and make a critical assessment to justify the feasibility and suitability of your project. Identify the core features (those you commit to develop) and the desirable features (those to be developed if time permits) of the proposed system.
- Prepare an **intended schedule** by listing/describing the tasks involved, expected outcomes and target dates. There is no need to create a Gantt chart (the management of your individual project is not that complex), a table with the above elements is adequate. Please be **cautious when planning** your project,

consider time for unexpected (but likely) difficulties. Having a plan that guides you on how to undertake your project one step at a time, will prove to be extremely useful. The project plan will be used to monitor and assess progress in the project.

- Given a brief account of the **knowledge, skills and resources** (e.g. software tools) required to undertake the project. Do not list resources without thinking carefully if they are justified. This can be a good estimate of what you already know that can help you to develop your project and what you need to learn.
- Include a short list of references. Make sure you use an appropriate format for **references and their citation**. It is also very important that you are aware of the **ethics of academic work**: plagiarism, misinterpretation, concealing data, authorship, confidentiality and misleading information.
- Aim for a good **organisation and presentation** of your project proposal with respect to headings, sections, subsections, cover page details, spacing and formatting, headings, illustrations, references and citations, etc.

It is normal that some parts described in the project plan change as you progress in your project, but preparing this document well will help you to **plan and organise** your work. Preparing the project plan helps to better define your project but it also represents a **commitment** for what should be delivered. See **Chapter 5 of the (Berndtsson et al. 2008) book** for more guidelines on writing a proposal.

Conducting a Literature Review

"Be the worst enemy of you own idea, always challenge it, always test it."
Sir Paul Nurse, Nobel Prize Winner, BBC Horizon: Science Under Attack

A literature review should be conducted when preparing the project plan (or interim progress report if there is one), but it should normally be expanded in the final dissertation. Conducting a **literature review** means to search, select, organise and digest the related materials and then to write your own **understanding and critical evaluation** of the material selected. Adequate **referencing and citation** are key elements of a high-quality literature review. The literature review should evolve during the project duration to reflect your increased understanding of the subject.

This is a list of suggestions that might help you when selecting and using sources of information.

- Select **relevant and reliable sources** that help you to test, support and even challenge your propositions and ideas. Speed reading can help to identify the main themes, arguments, and claims, to make a preliminary selection of sources in the early stages of research. Note that "recent" and "relevant" are not synonyms. Selecting references that are "recent" does not necessarily mean that they are credible, reliable, valuable and relevant.
- Ideally, you should **check directly the reliability** of sources. Some characteristics that suggest (but not necessary ensure) the reliability of a source of information are: published by a reputable press, peer-reviewed publication, reputable scholar source, up-to-date source.
- Using an Internet search engine or AI chatbot to find information does not necessarily mean good research. Browsing the Internet and querying an AI chatbot can help to generate ideas and arguments,

but the **reliability of resources found on the Internet** should be strictly verified. For every piece of information found on the Internet, it is crucial to ask about its credibility, the credentials of whoever published the information, whether the information has been assessed and by whom, whether the information is updated/supported/criticised/copyrighted and by whom, etc. Please be aware that AI chatbots (LLMs like ChatGPT and Gemini) sometimes "hallucinate" or provide inaccurate information.

- In general, **scholarly sources** should be preferred although there are some cases in which blogs, forums, and other similar sources are adequate. Overall, the resources selected should be: published by a reputable publisher, academic or professional organisation; online version of a reliable printed source; recent and relevant information; reliable source, etc.
- Take notes while reading the sources of information. Make sure you record all bibliographic details of the source so that you can locate it easily in the future. Some **forms of referring to sources** are: mentioning, summarising, paraphrasing and quoting. Be very careful when **making quotations and summaries**, double-check to ensure that the quotation is accurate, and no plagiarism is committed. Take notes that reflect your understanding and critical thoughts when reading the sources. Once again, be aware of the limitations and risks for academic integrity of using AI chatbots.
- Make sure you **read sources in an objective way** whether they support or contradict your propositions and ideas. Seek the main arguments when reading sources. Search for evidence, if a quotation in a source seems relevant, search the quotation in its original form and context. Treat claims made in sources with caution, do not take them as facts. Relying on text produced by AI chatbots is not advisable because it can mean you are not reflecting your own thoughts and writing style.
- Making only a summary of published work is not enough, you should also provide an **analysis and critical evaluation** of the related information and identify in a clear manner what is its relevance to your own work. It is not impossible to identify text that may have been produced by AI chatbots.
- There are several appropriate formats for **listing and citing references**, select a standard one and use it consistently throughout the report. It is very important that you provide the required details when listing references (e.g. pages, chapter, publisher, date, etc.) There is a subtle difference between a list of references and a bibliography. A list of references includes only those sources that are cited while a bibliography can also include sources that are not cited. Having good references and citations are key components of a high-quality dissertation. Make sure to avoid citing references that are not listed. Appropriate citation of references is **key for academic integrity and honesty**.

Preparing an Interim Progress Report (or Presentation)

"Earning trust requires more than just focusing on the science, we have to communicate it effectively too."
Sir Paul Nurse, Nobel Prize Winner, BBC Horizon: Science Under Attack

You might be required to report progress on your project in the form of a written report and/or an oral presentation. Demonstrating good progress is important for eventually achieving a first class or distinction mark. The key elements to address when **reporting progress in your project** include:

- Clear motivation, aim, objectives, scope and limitations
- Evidence of planning, analysis and good progress

- Demonstrate good understanding of topic
- Review alternative solutions and related work
- Good structure and organisation, enough details and good quality slides
- Interesting, clarity, confidence, enthusiasm, good grammar and lexicon
- Time management and answering questions

In terms of content, the progress report/presentation should address the aspects listed below which relate to planning, analysis, design and implementation of systems development. The report/presentation should be a **concise and informative description of your progress** on the project. Include only quality information and make sure you make good use the limited time available, for example, use illustrations to convey information instead of only words.

- Problem title, description, motivation
- Project aim, objectives, limitations
- Background and related work
- Research questions or intended contribution
- Details of system specification and design
- Details of implementation
- Schedule and progress to date
- Summary and remarks

Consider writing a **sample chapter** and **the table of contents** for your dissertation as part of the progress report. Select well the chapter that you will write at this stage, i.e. the chapter for which you have enough material and a clear structure in mind. The aim of writing a **sample chapter** is so that you get feedback on various aspects including the formulation of arguments, writing style, citation of references, organisation and presentation, etc. so it is important that the chapter is as complete as possible so that the feedback is meaningful.

Deciding the **table of contents** is also very important because that would reflect the overall content, structure and scope of the dissertation. You should try to estimate the length of each chapter and main sections. Select the headings for sections and subsections carefully so that together they reflect the flow in which material and arguments are presented in the dissertation. Giving a short description of each chapter and/or major section (except the sample chapter of course) is also a good idea.

It is very important that you provide **credible evidence of the progress to date** in the development of your project. Include appropriate illustrations to illustrate the methodology applied. It is expected that you use the appropriate tools and techniques learnt during your course when developing your project, providing evidence of good understanding and awareness but avoid including superfluous material just to increase the page or slides count.

Note that the schedule or **plan of activities in the progress report should reflect** on the initial plan included in the project plan. You should comment on whether the project is within the proposed schedule or adjustments have been made. In the case that the project is behind schedule, a brief explanation of the reasons for this and proposed corrective actions should also be given.

The **summary section is an opportunity to make a reflection** on your progress. For example, it is in this section where you can comment about the deviations and changes on goals and planned work if any. The feedback provided on your progress report/presentation should be used to adjust project plan and improve writing of the dissertation if necessary.

Tips for the Demonstration/Presentation

There is usually a live demonstration and/or presentation by the end of the project. For some projects there is also a requirement to record a short video describing the project and outcomes. The video is usually submitted together with the dissertation, while a live demo/presentation is usually delivered after the markers have looked at the dissertation. If both are required in your case, **do not simply cover the same content in the video and the demo/presentation**, instead make the most of each to convey your work and achievements.

If the submitted video and the live demo/presentation do basically the same thing, it is duplication and a waste of everyone's time. It **makes sense for the video to give an outline of the project**, its execution, methods, evaluation, and outcomes. The markers will usually see the dissertation and the video first, then for the demo/presentation it is good to show software execution (or research analysis), explain your code, and answer questions about the technical accomplishment in the demo/presentation. I think that **the demo/presentation, should be used to dig deeper into what has been implemented**, and even to corroborate that what is claimed in the dissertation has been done. Some addition suggestions for the live demo/presentation:

- Make sure to state clearly the aim and objectives of your project
- Practice getting the timing right
- If you use slides prepare to talk not just to read them
- Ensure any slides or handouts are clear and readable
- Describe and evaluate progress and outline future work
- Prepare for questions and give extended answers
- Setup well in advance instead of improvising
- Consider preparing a plan and 1-page handout illustrating your project
- Highlight strengths of the system but also know its limitations and faults
- Be prepared to show deep understanding of your computer code
- See **Chapter 12 of the (Berndtsson et al. 2008) book** for more guidelines on presentations

There is no time to demonstrate everything in your research and/or software, so you really need to prepare and plan to make the most of the limited time available. Focus on the key accomplishment in the computer

science aspect. However, make sure you mention the other things in your research and/or software capabilities but cannot be demonstrated in the time available.

Prepare input data well to demonstrate your software, entering random senseless data trying to improvise, does not give a good impression (like typing 'test' when entering a name). If you want to demonstrate functionalities and features, then **design good test scenarios and prepare data** accordingly.

Be ready to show and explain your code, not only the software in execution. If necessary, have windows already open with the relevant code so that if asked, you can show it quickly without wasting time on finding the relevant parts of the code.

Prepare a demo plan and **consider preparing a software leaflet for your demo** (no more than 1 page). You then can hand-out the leaflet to the markers and that can show the project name, its purpose, main features and some screenshots of the software.

Advice for the Final Dissertation Document

It is critically important that you aim to write your dissertation in **academic writing style using appropriate grammar and lexicon**. But do not overuse AI chatbots or other tools to produce text and present it as your own.

The final dissertation builds from the project plan and the interim progress report as applicable. There is no point on developing a good project and then preparing a low-quality written dissertation, but a low-quality project cannot be made good by preparing a good written dissertation. Before starting to prepare your dissertation, remind me to show you some examples of past dissertations with 1st, 2nd, and 3rd class marks so that you get a better idea of what it is expected. Some **examples of good past dissertations** are also available from the projects Moodle page.

The final dissertation is organised in chapters. Each chapter should have a brief introduction, main body divided in sections, and summary. Sections, subsections and chapters should be of an adequate and consistent length, not too short or too long.

The dissertation should include a clear and detailed description of the problem or application being tackled and the motivation for the project. The purpose is to provide the reader with a **good general understanding of your project but also to convince about its importance**. Ensure to only write about what you understand fully and transmit this to the reader. You should assume that the reader is 'computer literate'. That is, assume the reader is familiar with computing technologies but not necessarily an expert in the topic of the project.

Clear aim, objectives and limitations of the system to be implemented should also be identified. Specific **objectives would translate into specific actions in the plan of future work** and together with clearly identified resources and limitations serve as evidence of good understanding and early progress.

The dissertation should also include enough background information for your project, i.e. a literature review including the concepts that are necessary to fully understand your project. The literature review should also make an account of related work to obtain a good idea of the ‘state of the art’ in the selected topic. This should

help you to **put your project in context**. A literature review includes historical motivation, main developments, main contributions, relation between different works, research directions, etc. If this is the case, make an account of the solutions that are already available. Justify your proposed solution to tackle the problem/application selected and state the original/novel aspect that you are incorporating. It is very important that key concepts are defined at least briefly from the introduction even if they are explained and illustrated in more detail later in the document. The dissertation should also include an **account of the tools/technologies used** to design and develop the system. In the report, you should provide arguments to justify such selection including the programming language, office tools, etc. if relevant.

Move information to appendices only if necessary, bulky information generally goes to appendices, but make sure the flow of reading your document is not interrupted. Presenting details of software implementation is important but should be done in the appropriate form. Ensure to provide evidence of the following aspects: good software practice, graphical representation of code, explanation in text of code, very relevant parts of the code, etc.

Conclusions in the dissertation should be reflective and critical expressing clearly: what was good? What could be better? What would you do different? What would you propose to extend the work in this project?

Include a comprehensive **list of references (or bibliography)** that are useful sources of information for your project. This includes books, magazines, journals, online resources, etc. At the beginning of the project, do not take too much time on reviewing each resource, just concentrate on identifying those that seem to be relevant. Later in the project, you should 'filter' this list by examining each resource in detail. Keep those that are of good value for your project. Compile a final annotated list, that is, write a brief comment for each resource, this will be useful to cite them when writing the dissertation.

In the final dissertation you should **clearly identify the important contribution** of your work, make a critical assessment, and propose possible extensions. Have a look at some past dissertations (BSc/MSc) and PhD theses to get an idea of how to organise your dissertation.

- A dissertation should not be just a content/data dump, you must select carefully the material that supports the problem description, aim, objectives, proposed solution and ultimately, helps you to establish an effective communication with the readers.
- There is no greater contributor to the quality of your work than your commitment to do a good project and to write a good dissertation.
- Your dissertation should explain in a clear manner: what are you writing about?, what do you want to investigate and develop?, and why is that important for you and the readers?
- Do not forget that your proposed solution should be significant for others, not just yourself. Think of the audience saying: *so what?* after reading your report. As Booth et al. 2003 say: "The worst response you can get from a reader is not *I don't agree*, but *I don't care*".

Remember that the dissertation should **clearly express the intellectual proposition** that you are putting forward and the arguments to support it. A good dissertation communicates *claims* that answer a research question or provide solution to a problem. The claims should be supported by good *arguments*. Arguments are made with good *reasons* and based on strong *evidence*. It is also important that the arguments are presented

in a way that is interesting and convincing for your readers. Therefore, you should acknowledge and respond to other views that your readers might have about your work. Explaining in a clear manner the principles of your reasoning will help to communicate your claims and arguments more effectively. That is, claims are the focus of the dissertation because they indicate what is the actual *contribution* and *significance* of the work presented. Reasons and evidence provide the basis for you making good arguments to support your claims: why should the readers accept the claims made in the report? What tangible or intangible evidence is provided? It is also expected that readers will question the claims and arguments provided, therefore you should try to anticipate their questions, acknowledge them and then respond. Of course, the most difficult part is to anticipate the questions from your readers, you should try to imagine these questions, being self-critical of your work will help to do that.

Propositions and claims are crucial in the report, they should be specific and significant, but also acknowledge their limitations. Claims explain the causes of the problem that you try to solve, and they also explain how your proposition will solve the problem.

Reasons and evidence support the claims made in the dissertation. Reasons provide logical structure and coherence to the dissertation while strong evidence provides the supporting facts. Evidence includes the evaluation and discussion of results. It is not uncommon that readers view evidence sceptically, therefore you should present your evidence clearly (so that reader can interpret it) and say how it was collected. Evidence should be accurate, sufficient, representative and precise (Booth et al. 2003). A test plan involving static and dynamic (white box and black box) testing is part of the evidence.

Often, there is **need is to communicate evidence** visually by means of tables, charts, graphs, etc. Evidence should be reported clearly, adequately, fairly, and avoiding a misleading effect. Provide sentences that explain what readers should see in the reported evidence and highlight those data that are most relevant. Visual elements complement the text and can help to engage the reader and enhance the communication, but they should not just repeat what is already explained in text. Some specific recommendation in relation to visual elements:

- Should be located close to the text where it is referred.
- Should stand alone in meaning so that can be interpreted without the need to read large amount of text, writing concise descriptive captions is good practice too.
- The size of visuals should be planned carefully to allow readability but also avoid waste of space.
- Select carefully the type of visual that will improve the communication: tables, line graphs, scatter plots, bar charts, histograms, pie charts, flow charts, pseudocode, mind maps, organisational charts, drawings, photographs, etc.

Planning and drafting are good practices when writing your dissertation. Writing in good academic style is important, therefore you should think before writing and prepare a tentative plan before starting a first draft. The steps for planning a dissertation as suggested by (Day 2013, chapter 6) are:

1. Suggest a series of chapter titles
2. Write one or two sentences for the content and intent of each chapter
3. Write a list of section headings for each chapter

4. Suggest logical steps in the argument within each section
5. Write a phrase or sentence for each paragraph within a section and/or subsection
6. Estimate the number of words for each section, then each chapter, and then for the whole dissertation

For example, a plan for drafting your dissertation can include:

1. Prepare the **main proposition, claim or contribution** which will be expressed both in the introduction and in the conclusions.
2. Organise the **main body** of the dissertation. Prepare a sketch of background information. Establish a good order for the reasons and evidence that will support the claims. Decide where to locate the acknowledgement to the readers' questions and objections and your responses to them. Then, decide where to locate the principles of your reasoning.
3. Prepare the **introduction and state the main claim** at the end or close to it. Note that the introduction should be prepared once the main body of the report has been drafted.
4. Draft the **conclusions and state the main proposition, claim or contribution** at the beginning or close to it. The conclusions should be drafted once the drafts of the main body and introduction have been revised several times. It is crucially important to carefully revise the conclusions in the last stage of preparing the dissertation.

Composing a first draft can be challenging but it should be done rapidly to allow sufficient time for reviewing and editing your writing. When writing a draft, avoid perfecting sentences and structure, instead let ideas to flow and make notes to indicate where further work (examples, expanded discussion, etc.) is needed. There are some techniques that can be helpful in writing a draft rapidly. One technique is **writing to a prompt** which involves writing the purpose of the next section to drive the writing by focusing on answering the prompt. Another technique is **freewriting** which involves writing sentences in an uninhibited and uncensored way to let ideas flow, brainstorm and make connections.

Revising the organisation and writing style of the dissertation should be approached in a top-down fashion. That is, start by revising the overall organisation, then revise the individual sections and points, finally revise the clarity of sentences together with spelling and punctuation. It is very important to revise the continuity of topics and points as this will affect the quality of arguments and the credibility of claims and propositions. It is generally recognised that tree levels of editing are needed: **developmental editing** (major changes to structure and organisation)**, copy-editing** (fine tuning and readability) **and proof-reading** (completeness, consistency and correctness). Revising **grammar, spelling, punctuation and presentation** are also essential good practice for good academic writing.

A good writing style will serve the purpose of the dissertation. Complex writing does not reflect complexity of ideas, avoid convoluted, indirect and impersonal writing. Each **paragraph should normally develop one main idea** and arguments are usually developed by coherent linking of related paragraphs. Sentences should be clear and readable. In general, readers prefer **sentences that are short, specific, precise, and concrete**, that is, avoid verbose writing. According to Booth et al. 2003, passive writing is more appropriate when referring to actions that other can replicate (measure, execute, record, etc.), while active writing is more appropriate when referring to actions that only the author is suggested to perform (suggest, claim, show, prove, demonstrate,

etc.). All **acronyms must be defined** before using them in the report, but in particular those that are not part of the common language. Make good use of graphs, charts, tables, bullets, subsections, etc. to improve the presentation and readability of the report. Tables and illustrations should be included is they add value to the report not to make the report 'look nice'. Note that it is very important to always use captions so that graphs, charts, tables, etc. are self-explanatory even if they are described in more detail within the report.

Introduction and conclusions should be prepared after the main body of the report has been revised and no considerable modifications to the organisation of the document are expected. The introduction is the main opportunity to grab the readers' attention, and therefore, this part of the dissertation should convince readers that the problem you tackled is an important one, that the problem demands a solution, and that you have found a good solution. The introduction should contain adequate background information, clear statement about the problem, and the proposed response to solve the problem. It is also common that the organisation of the report is described briefly at the end of the introduction, i.e. what is the topic in each chapter, content of appendices, etc. The conclusions section is where the actual contribution of the dissertation is highlighted. The conclusions should: contain the main claims and propositions, add significance, and propose extensions and improvement to the work presented in the dissertation. It is important reflecting back on the aim and objectives in the conclusion and also to discuss your results in the wider context of the subject area. It is also crucial that the conclusions include implications and recommendations while also summarising the most important points argued in the main body of the dissertation. The conclusions should also evaluate the project achievements and suggest future extensions.

The **title and abstract** of the dissertation should be prepared only after the dissertation has been carefully revised. The title should include the key terms that appear in the main claim or proposition. The abstract should only communicate the purpose and significance of the dissertation is a concise and accurate way, not the organisation of the document. The abstract should state the subject problem, communicate the key topics, and finalise with a statement about the main claims and propositions of the dissertation. The abstract should normally not include citations. As suggested by (Berndtsson et al. 2008), a good abstract should give a high-level presentation of the project topic, convince about its importance, give a high-level presentation of the project methodology and summarise the contributions.

It is critically important that you take special care of the following two aspects: PLAGIARISM and REFERENCES/CITATIONS. You must select good quality references for supporting your work, be very selective, in particularly when using Internet resources. Make sure that you always acknowledge the work from others by citing the sources accordingly. See **Chapter 6 of the (Berndtsson et al. 2008) book** for a quick guide on references and citations.

Academic misconduct is not tolerated in any coursework. Plagiarism is the use of words or ideas from someone else (including AI chatbots) without giving credit to that person/system. Plagiarism may be intentional or not, avoid plagiarising inadvertently by taking notes carefully and paraphrasing your sources.

Finally, in terms of keeping with the page/word limit, you should take into account that:

"Research is like gold mining: dig up a lot, pick out a little then discard the rest. Even if all that material never appears in your report, it is the tacit foundation of knowledge on which your argument rests. Ernest Hemingway

once said that you know you're writing well when you discard stuff you know is good - but not as good as what you keep" (Booth et al. 2003).

Quality Indicators of Individual Projects

Although there are specific marking criteria explained in the project handbook, there are more general characteristics and quality indicators that have been proposed in the literature for assessing individual projects.

According to Healey et al. 2013 the characteristics of final year projects and dissertations are:

1. It should be an extended piece of work
2. It should be research or inquiry-based
3. It should be relevant to a discipline or take an inter-disciplinary approach
4. It should be underpinned by a range of relevant sources
5. It should be contextualised and show recognition of the provisional nature of knowledge
6. It should incorporate an element of critical thinking, challenge and evaluation
7. It should be clear what it is contributing
8. It should have a clearly defined and justified methodology
9. It should build up to its conclusions and where appropriate have an element of reflective commentary, including recommendations
10. It should communicate the research outcomes appropriately and effectively

Also, according to Healey et al. 2013, the generic assessment criteria for dissertations are as follows:

Fundamentals of the dissertation

- Evidence of originality and perceptiveness
- Clarity of aims and topic identification
- Evidence of reading and awareness of literature
- Quality of research design and methodology
- Awareness of any shortcomings of design and methodology
- Quality of data
- Presentation, analysis, evaluation, synthesis and interpretation of data
- Conceptual awareness and theoretical understanding
- Sustained argument
- Logical organisation
- Findings and conclusions justified and contextualised in the literature
- Where appropriate, improvements or further developments of study
- Recommendations for the topic and research process

Presentation

- Standard of presentation, use of English language and structure
- Use of complex academic terminology

- Correct use of referencing conventions
- Coherent integration of illustrative material
- Clarity of communication and ideas

Administrative

- Conduct including engagement with administrative processes
- Assessment of risks and ethical considerations
- Fulfilling requirements

Independence

- Ability to work independently
- Demonstration of personal initiative and responsibility
- Conduct and competence during practical work
- Cognitive, intellectual, practical and personal skills
- Appropriate and correct use of ICT applications
- Reflective, critically evaluating own performance and personal development

The 'X Factor'

- Demonstrable critical ability
- Creative thinking
- Flair and innovation

References

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