

Computing Honours Project

(COMP10034)

Lecture 4

Primary Research and Advice for
Writing Hons Project

If you are struggling, have problems, queries then either:

- (i) Email me**
- (ii) Arrange to see me in person**

Don't leave it until it too late and make the problem worse

Importance of Primary Research

Primary research forms key part of your Hons Project – requires careful planning and implementation

Examples of primary research can include be:

- Set of interviews/surveys with organisations in order to produce technical requirements
- Design, development and evaluation of software prototype
- Development and evaluation of network simulation

Importance of Primary Research

If it all goes wrong – don't have time to go back and redo it!

Your primary research should be informed by the literature/technical review

Key concepts, issues, themes should underpin your primary research

Importance of Primary Research

The literature/technical review should provide you with an idea as to what key issues, factors, areas for future research are relevant to your research topic

Literature/technical review should also give you an understanding how previous authors/researchers examined an area

What research/development methods and approaches did they use?

What were the main lessons, findings and recommendations?

Importance of Primary Research

The link between what is already out there and your own research is very important

It helps situate your work

It helps 'validate' your work and provide academic credibility

At this level your Hons Project does not have to be earth-shattering or unique

You are demonstrating your ability to undertake a comprehensive, well thought out and 'joined-up' piece of work on a topic of your choice

Research Method

Often a weak area of the Hons project

Not sufficient to design your practical work with little or no reference to ideas on research method – need to relate this to previous examples of work / literature in the area

What you discuss in your research method section/chapter should be directly relevant to what you do in your Hons Project

Research Methods

(1) Qualitative Research – small sample, examine peoples' opinions, usually involved interviews or focus groups, more indepth

(2) Quantitative Research – larger sample, less indepth, more structured in approach, involves surveys, some form of statistical analysis

(3) Mixed Methods Research – mixture of both

Software Development Methods

Often a **weak area** of the Hons project

Some examples include:

- Waterfall
- Spiral
- Rapid Application Development (RAD)
- Prototyping
- Agile

IMPORTANT

You need to make your stance clear and justify it

Description of other relevant methods then justify your approach

IMPORTANT

Probably a good idea to do some reading on **how research/development/simulation (i.e. the primary research) is generally conducted** in your area

How is **testing & evaluation** in your area carried out

Look at previous papers and literature

*****Discuss with your supervisor*****

Length of the Final Hons Project Report

10,000-15,000 words

Depends on **nature of the Hons Project**

i.e. whether it is more **investigative** in nature (more report based with some technical content) or **developmental** Hons Project (more based around prototype, simulation)

You should consult your supervisor for advice

Structure of the Final Hons Project Report

Hons Project Report is **main means of communicating** your work and ideas with the examiners/markers

You could produce a 1 or 2 page **outline plan** indicating main chapters, headings and points and discuss this with your supervisor first

Structure of Final Hons Project Report

The Hons Project Report should be divided into:

Chapters (usually around 6 or 7 and not more than 10)

Each chapter should have:

- Chapter number
- Chapter title
- Headings
- Subheadings

Chapter 2

Literature Review

2.1 Introduction to Chapter

2.2 Another Heading

2.2.1 Subheading

etc..

etc ..

2.6 Summary of Chapter

Structure of Final Hons Project Report

In terms of chapter titles your **Marking Scheme** can provide useful ideas for example:

Literature Review

Evaluation and Testing

Primary Research

Design of Mobile App

Analysis of Results

Critical self-Appraisal

Development of Mobile App

Recommendations and Conclusion

Language and Style

Be formal – this is an academic report

Avoid first person

Try not to use **I/we/me** etc

Use **passive** rather than active voice – write about the **action rather than about the actor**

e.g. I sent out a survey to the end users (**avoid this style of writing**)

A Survey was sent out to the end users (**this style is better**)

Language and Style

Avoid slang words and phrasing (e.g. I interviewed some bloke from the IT Department)

Avoid informal abbreviations/contractions (e.g. don't, wont, can't, isn't etc)

Do not use **texting language** (e.g. CU, L8R, OMG)

Be professional

- Check spelling
- Check grammar
- Check punctuation

Overall Formatting

Typed using **Word compatible format**

Include **page numbers** (often overlooked)

Use **A4** paper size

2.5 cm margins at top, bottom and edges of paper

Either **single or 1.5 spaced**

Font size of main body text should be **11pt or 12pt**
using clear fonts such as Arial or Times New
Roman

Writing

For the Literature Review **don't use multiple lines of quotes** from the literature just strung together over pages and pages

Use quotes where necessary **but don't over do it**

Writing and Referencing

Use a writing style such as the following for example:

You might say:

Major shortfalls associated with approach X have been highlighted by Smith (2009) and Jones (2010) who make the points that

Or...

Writing and Referencing

A number of authors have highlighted particular shortfalls with approach X in terms of how it can be applied in the real world (e.g. Smith, 2008; Jones, 2010). Commonly cited problems associated with approach X that these authors highlight include ...

Discuss the authors' points without directly quoting all the time or just cutting and pasting

You can use quotes for example in defining terms or concepts etc but don't overdo it

Figures, Illustrations etc

If directly referred to in the narrative should be placed **in the text as close as possible to the first point at which they are mentioned**

Each type of illustration should be **numbered consecutively throughout the Hons Project**, e.g. Figure 1, Table 3.1 etc.

If taken from other works, **the source of the illustration should be given under the illustration**

Figure 1: Title (Source: Smith and Jones, 2011)

Appendices

Used for material which is:

- Too large or detailed for the main body of text
- You will refer to from the main body of text

Examples include:

- Tables of results, examples of completed questionnaires, interview transcripts
- Program code or configuration files

Report writing – the structure

Appendices : Supplementary information

Will the reader need to know this?

Yes

No

Do they need to know it to follow the argument?

Don't include in report

Yes

No

Put in the main body

Is it referred to several times?

Yes

No

Put in main body

Put in appendix

The Writing Process

Use commas, full stops, paragraphs etc – don't have 10 line sentences or pages full of 1 line sentences

Use other people to proof read if you wish

Supervisors may provide feedback on the overall content, flow of arguments, structure etc

It is **not your supervisor's role** to proof read your Hons Project – that is your responsibility!

The Writing Process

It is **not your supervisor's job or role** to write the Hons Project report for you

Nor is it the supervisor's role to **spot all errors and mistakes – they don't do your work for you**

Get any **drafts to them early** – they are likely going to be very busy and you are in a queue

Do not **stalk or hound** your supervisor!

Advice

Start early on the drafts

Plan out the **structure**

May be leave the **Introduction a few weeks** when you have a clearer idea and picture

Think about **headings** and **subheadings** of chapters

Planning

Important to start off by brainstorming the outline/structure of the report and particular chapters

- Write down the purpose of the chapter in the middle of a piece of A4 paper
- Write down the key ideas/phrases that link to the chapter
- Group pieces of information under the key areas connecting them by links

Planning

- Review the plan, adding or deleting points where necessary
- Look for a relevant structure, and order the key ideas
- You could structure the report around key areas of the marking scheme
- This could make up key sections/chapters of your report

Advice

- **Check existing knowledge**, i.e. what you know already, and what you need to find out
- Find out where there might be weak areas/gaps in your work or thinking and how these can be addressed

Report/Chapter writing – After writing

Check your chapter/report for:

- Completeness
- Accuracy
- Layout
- Spelling
- Numbering
- Illustrations

Report/Chapter writing – After writing

Your chapter/report may require several revisions before you get to the final version

Rushed chapters/reports produced at the last minute are not usually of the best quality and highest standard

There are usually ‘tell tale’ signs that show a report/chapter has been produced quickly with little time and effort spent

Report writing – After writing

*****Very Important*****

Check against the marking scheme with your supervisor to ensure you have not overlooked anything

Don't throw away marks by forgetting to include important sections/work

Advice

Start writing as soon as you can

Don't spend all your time planning, thinking and banging your head against a brick wall!

Once you start writing you have **something tangible** to show your supervisor to get comments and feedback

Advice

Have a look at the Hons Project Examples on Moodle

Don't use them as a template – but see what structure/layout might be appropriate to your programme/subject area

Check with your supervisor that the layout, structure, style of writing is appropriate to your chosen area and what they would expect to see