



University of Essex

Online

Research Methods and Professional Practice

Seminar 5

Diego Navarra

BSc, MSc, CIMA Cert BA, PhD, FHEA



Module Overview

- Unit 1: Introduction to Research Methods. The Scientific Investigation and Ethics in Computing
- Unit 2: Research Questions, the Literature Review and the Research Proposal
- Unit 3: Methodology and Research Methods
- Unit 4: Case Studies, Focus Groups and Observations
- Unit 5: Interviews, Survey Methods, and Questionnaire Design
- Unit 6: Quantitative Methods - Descriptive and Inferential Statistics
- Unit 7: Inferential Statistics and Hypothesis Testing
- Unit 8: Data Analysis and Visualisation
- Unit 9: Validity and Generalisability in Research
- Unit 10: Research Writing
- Unit 11: Going Forward: Professional Development and Your e-Portfolio
- Unit 12: Project Management and Managing Risk



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Unit	Seminar Title
1.	<u>Introduction</u>
3.	<u>Peer Review Activity</u>
4.	<u>Case Study on Privacy</u>
7.	<u>Inferential Statistics Workshop</u>
8.	<u>Workshop on Presenting Results</u>
11.	<u>e-Portfolio Preparation</u>



Deadline details

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Assessment

Assessment	Length/duration	Submission	Weighting
<u>Literature Review</u>	2,000 words	By end of Unit 7	30%
<u>Research Proposal Presentation</u>	15 Minute presentation and transcript	By end of Unit 10	30%
<u>End of Module Assignment: e-Portfolio</u>	2,500 words equivalent including 1,000 word reflective piece	By end of Unit 12	40%



Unit 8: Data Analysis and Visualisation

e-Portfolio Assessment | 14 hrs

Continue with the [Unit 7 Discussion forum](#). Considering what you have now learned in both units, you should respond to at least three of your peers' contributions from Unit 7. Please try to limit your posts to 200-300 words maximum, so that others may be encouraged to reflect on, and respond to your ideas. Your follow-up responses should be labelled as 'Peer Response'. For guidance, look at the guidelines for the peer review process on the [Department's homepage](#). This provides an excellent way to understand and constructively feedback on other peoples' points of view.

Complete the Charts worksheet in Excel or LibreOffice. The completed worksheets from units 8 and 9 should be included in your e-Portfolio. You will need to include your analysis and provide your interpretation of the results. You can complete the worksheets before or after the workshop this week.

Participate in the seminar this week.

Submit your Research Proposal Outline.



e-Portfolio Activity: Inference Worksheet

Mark as done



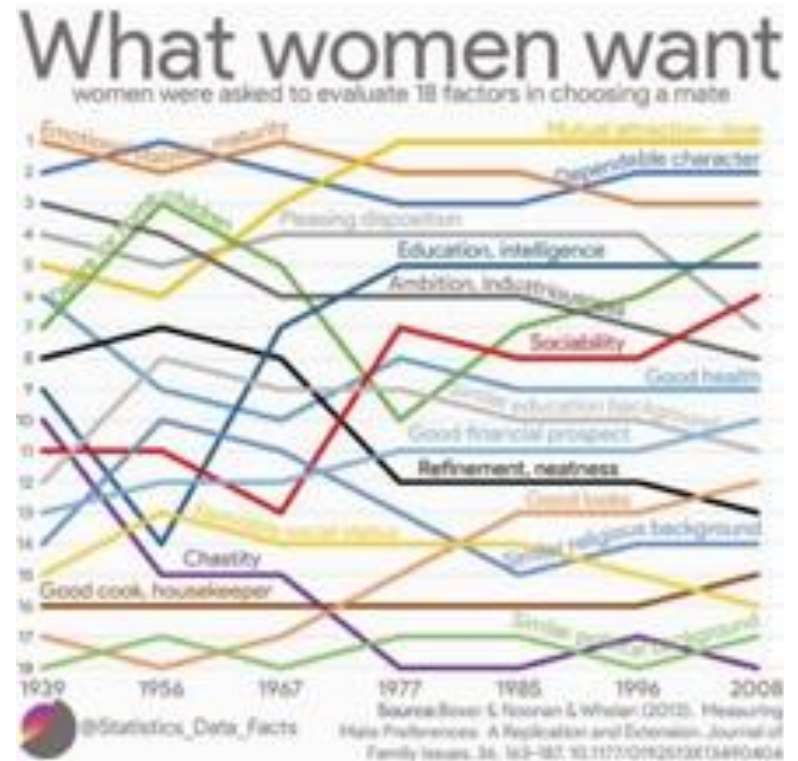
Unit 8 Exercises - Workbooks



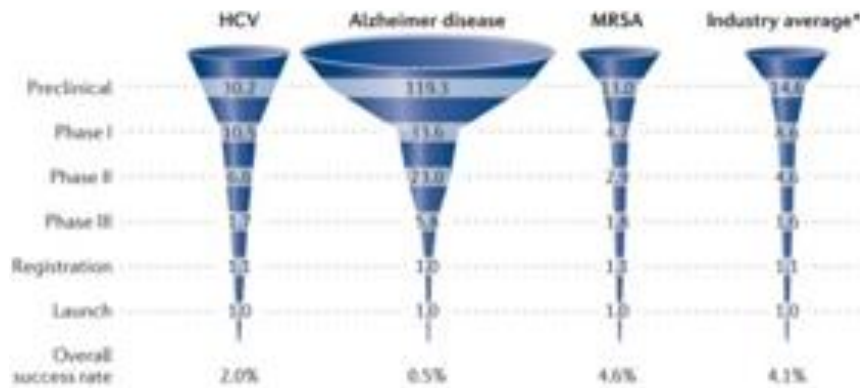
Unit 7 and 8 Data Annexe and Datasets



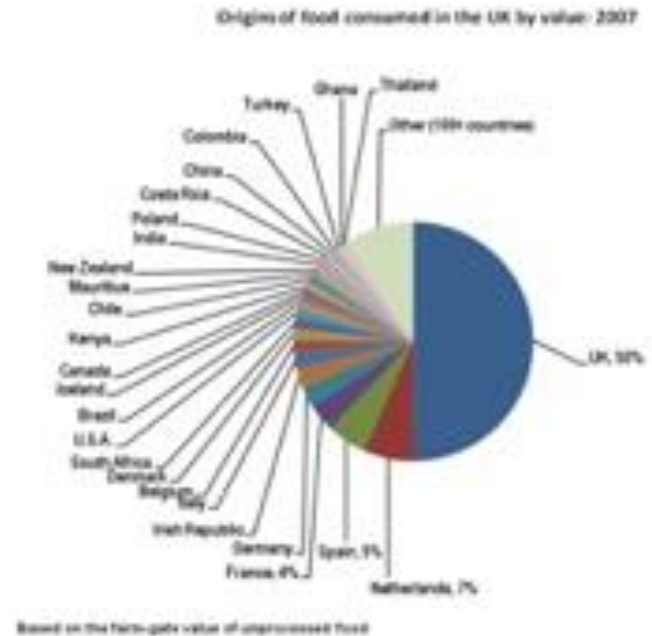
Unit 8: Data Analysis and Visualisation



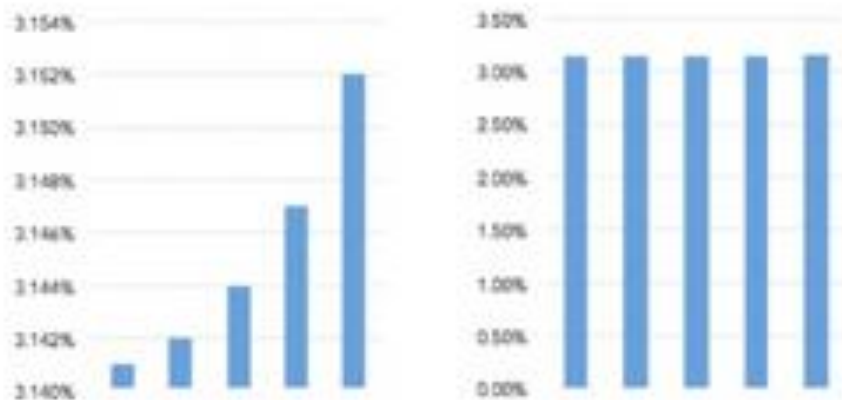
Unit 8: Data Analysis and Visualisation



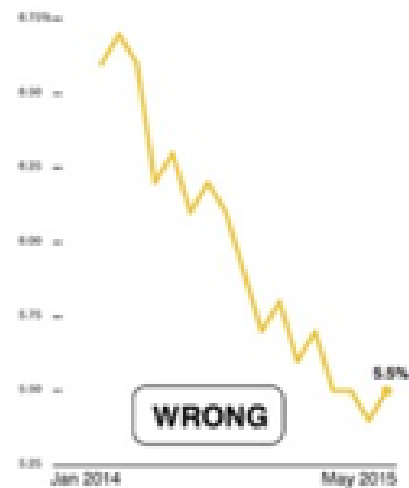
Nature Reviews | Drug Discovery



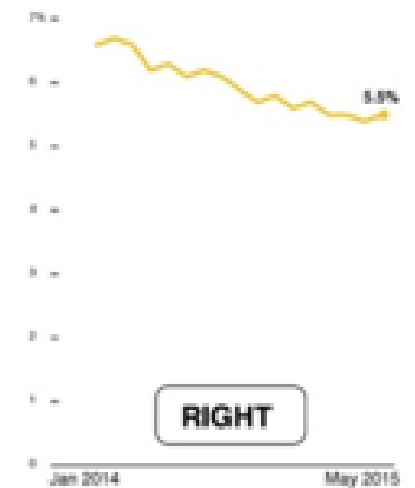
Unit 8: Data Analysis and Visualisation



US GDP



US GDP





Conflicting science

Hair dyes could raise risk of breast cancer

A recent study on hair dye and chemical straighteners spun so far off course that the people most at risk — black women who use these products more than others — weren't even mentioned in most of the coverage. Instead, headlines warned that "[Hair dyes could raise risk of breast cancer](#)" or predicted new trends about fearful women "[going gray](#)" or took crazy liberties with the researchers' findings. Fast Company even provided a few creative descriptors, "[A harrowing study of 46,000 women shows hair dyes are heavily associated with cancer](#)." Associated, yes. Heavily — if that means strongly — not at all.

<https://nypost.com/2017/10/14/hair-dyes-could-raise-risk-of-breast-cancer-study/>

<https://www.fastcompany.com/90438992/a-harrowing-study-of-46000-women-shows-hair-dyes-are-heavily-associated-with-cancer>

Chocolate is good for your health: <https://www.medicalnewstoday.com/articles/270272>

Chocolate is not good for you: <https://www.livestrong.com/article/392195-chocolate-negative-side-effects/>

Red wine is good for you: <https://www.goodhousekeeping.com/health/diet-nutrition/a33145/drink-wine-every-day/>

Red wine is bad for you : <https://www.telegraph.co.uk/news/health/12086226/Red-wine-is-bad-for-you-say-experts.html>



Assessment

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Research Proposal Presentation

This is the second summative assessment for this module and accounts for 30% of your final module mark. Submit by end of Unit 10.

Assignment Brief

The research proposal presentation fulfils the learning outcomes where you will evaluate critically existing literature, research design and methodology for your chosen topic, including data analysis processes and so produce and evaluate critically a research proposal for your chosen topic. This can be based on the literature review topic you chose in Unit 1 or the topic of your capstone project for MSc Students (MSc students - Please see the [BCS Project Requirements document on the Module Resources page](#) and also the [CyBOK Knowledge Base](#) for those taking on Cyber Security Projects as your Cyber Security project should fall into one of these CyBOK Knowledge Areas, as well as meeting BCS requirements).

You are required to create an audio-narrated slide presentation and a transcript in which you will present the following sections. These sections are required in a standard research proposal for the Computing department. You are free to combine/merge sections, where appropriate and without detriment to the structure of your presentation.

- Project Title.
- Significance/Contribution to the discipline/Research Problem.
- Research Question.
- Aims and Objectives.
- Key literature related to the project.
- Methodology/Development strategy/Research Design.
- Ethical considerations and risk assessment (as part of your ethical approval application).
- Description of artefact(s) that will be created (if applicable).
- Timeline of proposed activities.

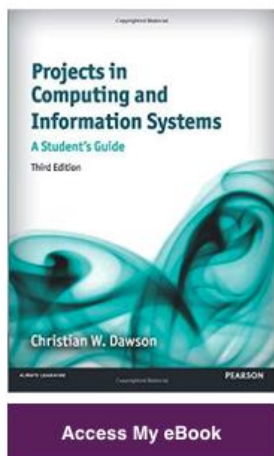
The research proposal presentation fulfils the learning outcomes where you will evaluate critically existing literature, research design and methodology for your chosen topic, including data analysis processes and so produce and evaluate critically a research proposal for your chosen topic. This can be based on the literature review topic you chose in Unit 1 or the topic of your capstone project (MSc students).



Main e-portfolio and formative activities

Unit(s)	Component	Deadline	e-Portfolio/Formative
1 - 3	Collaborative Discussion 1	End of unit 3	e-Portfolio
1	Reasoning Quiz	End of unit 1	Formative
1	Reflective Activity 1: Ethics in Computing	End of unit 1	e-Portfolio/Formative
2	e-Portfolio Activity: Literature Review and Research Proposal Outlines	End of unit 4	e-Portfolio/Formative
3	e-Portfolio Activity: Research Proposal Review	End of unit 3	e-Portfolio/Formative
3	Seminar 2: Peer Review Activity	End of unit 3	Formative
4	Seminar 3: Case Study on Privacy	End of unit 4	Formative
4	Literature Review Outline Submission	End of unit 4	Formative
5	Reflective Activity 2: Case Study: Inappropriate Use of Surveys	End of unit 5	Formative
5	Wiki Activity: Questionnaires	End of unit 5	Formative
7 - 9	Collaborative Discussion 2: Case Study on Accuracy of Information	End of unit 9	e-Portfolio
7	Seminar 4: Inferential Statistics Workshop and Statistics Worksheet	End of unit 7	Formative/e-Portfolio (worksheets)
8	e-Portfolio Activity: Research Proposal Outline	End of unit 8	e-Portfolio/Formative
8 - 9	Statistical Worksheet Submissions	End of unit 10	e-Portfolio (compulsory)
9	e-Portfolio Activity: Charis Example Worksheet	End of unit 9	e-Portfolio/Formative
11	Seminar 6: e-Portfolio Preparation	End of unit 11	e-Portfolio/Formative
12	Self Test Quiz	End of unit 12	Formative

eBooks



Projects in Computing and Information Systems: A Students Guide

Edition: 3rd

Author(s): Dawson, C.

Date of Publication: 2015

Publisher: Pearson

Place of Publication: Harlow

[Access My eBook](#)



Basic Business Statistics: Concepts and Applications

Edition: 14th

Author(s): Berenson, L., Levine, D., Szabat, K. & Stephan, D.F.

Date of Publication: 2020

Publisher: Pearson

Place of Publication: Harlow

Access via the University of Essex Library.

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Thank you

Any questions?

Email: diego.navarra@kaplan.com

Skype: diegonavarra

LinkedIn: <https://www.linkedin.com/in/diego-navarra-800228/>