Mini-Dissertation

Detailed Guidance 2024/5

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Detailed Mini-Dissertation Briefing

Overview

The Mini-Dissertation is an integral part of your academic journey, contributing **70%** of your module grade. It mirrors the structure of an APA lab report, similar to the reports you completed last year. However, in this task, nothing is pre-packaged – you and your group will make all the research decisions, with support from your teaching team, lab tutors, and personal tutors.

Key Parameters:

- **Duration**: 20 weeks.
- **Group work**: You will be working in a group of 3 or 4 students, with each student researching a separate combination of IVs and DV.
- **Focus**: The project will require you to design and conduct an original psychological experiment.

Project Components

1. Identify an Area of Psychological Research

Your first task is to select an area of research that interests you or you think important - but this could be anything at all. There is no right answer. This could be drawn from your past studies

(Extended Essay or Research Participation Scheme/Practical Issues module with Tegan and staff last year), ongoing debates in psychology, or gaps in the literature. You'll need to ensure that this area lends itself to an **quantitative approach** (using a 2x2 ANOVA design) and that it's feasible within the timeframe and resources available. Your Lab-Tutor (and extended support team) want to help you with this!

Action point:
Explore journal articles or speak with your teaching team to help narrow down a research domain. Seek feedback from your lab tutors to confirm that the chosen area is appropriate.

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2. Literature Search and Critique

Once you've identified your research area, you will conduct a **literature search and critique**. This involves identifying relevant studies, reading some of them to varying levels of detail, critiquing their methodologies, and discussing how your project will build upon or diverge from the existing research.

Tip for the top: Your Mini-Dissertation project will require you to read a number of journal articles and text-books will not be terribly useful. It is wise to aim to improve how you find and read journal articles to get the most out of the process with least cost in terms of time and stress. Being organised and strategic is key.

Resources:
Make use of the readings provided in your modules, exploit all the tools we identify in the labs, and use the library wisely. Consider this one of the most important skills you will develop. Please make sure that you learn to identify, and use, credible, peer-reviewed journal articles as evidence in your Mini-Dissertation (and in your Critical Proposal).

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3. Design a 2x2 ANOVA Experiment

Your individual part of the group study must follow a **2x2 factorial design**, where you have two independent variables (IVs), each with two levels. This will allow for the examination of main effects and interaction effects between the variables. Importantly, your design should be **unique** within your group, but it is absolutely fine for groups to work on similar topics. You will be given plenty of support to get to this point.

It is common when reading this in week 1, to find this unclear and intimidating Please do not despair, there are MANY aspects of this process that will become clear only once you do

it. Consider this an opportunity to impress yourself once you overcome this initial confusion. Your lab-tutors have done this loads, and it's the same every year. Hang loose and trust us!

Considerations: - This is Research **Methods** and so always be thinking about the methods you are using and the merit of them How will you operationalize each variable? Does it sound accurrate and reliable? - What tools or resources will you need for data collection if you choose to use this method?

Tip for the top:
Do not get hung up on the design in the early stages of the term. Just look for a topic that interests your group, read around and see what methods are used and what we already know. Design & Analysis will introduce ANOVAs more. Gordon will demonstrate ANOVAs and you will see examples in the coming weeks. It's not critical to understand this until the second half of term 1, but you can engage with figuring it out yourself using the resources we provide if you wish.

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4. Develop a Testable Hypothesis

Your hypothesis must be based on the literature you've reviewed (otherwise it will be difficult to make a sensible introduction to your Mini-Dissertation) and should clearly state **what you expect to find** in your 2x2 ANOVA. There are going to be up to three hypotheses you might have in your study, so keep notes about what predict will happen as you go along.

Example Hypotheses:
You will each have a 2x2 ANOVA design, meaning you will have a so-called 'main effect' of IV1 and a 'main effect' of IV2, and a possible 'interaction'. Pop a pin in those for now, but we cover this in detail in the coming weeks in both Research Methods AND Design & Analysis.

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5. Ethical Approval

Before any data collection, you will need to secure **Ethical Approval**. This involves submitting an ethics proposal outlining your study design, recruitment methods, data handling procedures, and how you will safeguard participant welfare.

Signpost:
Work closely with your lab tutor to ensure that your ethics submission is thorough. Templates and guidance is available, and students should adhere to College guidelines on ethical research practices. This is a crucial dry-run for your Y3 Dissertation, where you will do this on

your own. This year, Ethical Approval is expected to take a week. In Y3 it will take about a fortnight, so it's something to plan for and to recognise will never be something that can be rushed.

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6. Data Collection

You will be required to collect **REAL data** for your experiment. This will involve recruiting participants, administering your experimental manipulations, and ensuring data is collected in a controlled, valid, and reliable manner.

Key Tips: Never start collecting data without trying everything out and checking it works. Every year somebody only finds out their data-collection didn't work as expected after they have spent a long time recruiting and/or running the study. It's heartbreaking. But not a problem this year. We have safeguards in place. But next year... It might not be as simple.

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7. Data Analysis: Conduct a 2x2 ANOVA

Once the data are collected, you will conduct a **2x2 ANOVA** to test for main effects and interaction effects. This statistical analysis is essential to your Mini-Dissertation, so it's important to understand the process. You will all do exactly this analysis (taught in weeks 8-10 of Design & Analysis). This will include Descriptive Statistics, Assumption Testing, Tables, Figures, Inferential Statistivs (one of the 3 flavours of ANOVA) with APA format narrative reporting of the results and post-hoc tests as necessary.

Stats Anxiety:
It is common that people will over-estimate the complexity of the data analysis phase of this project. It is also common that people will avoid thinking about it and hope it doesn't happen. It will. But here's the good news. We know the analysis you need to do and start paving the way early on. It's a focus of the second half of term 1 in Design & Analysis, and we give detailed support too. We even give support to do it using tools other than SPSS, should you wish. And it only usually takes the lab session in week 17 to do. And as with all other parts of this project, you can show your Lab-Tutor and get help all the way through the process in the labs designated for that activity. By getting anxious, you will likely avoid the tips and support we give about this, and fret about something that takes about 2 hours to do in total. But we understand. We've been there too.

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8. Write the APA Report

Your report must be written in **APA format** and should not exceed 2,500 words (from the first word of the title to the last word of the Discussion). You should include the following sections:

- **Title Page**
- **Abstract** (150-250 words - this is part of the 2,500 word allowance)
- **Introduction**: Summarize your literature review, state your hypotheses, and justify the research.
- **Method**: Describe the participants, materials, procedure, and design in detail.
- **Results**: Descriptives and Assumption testing, then Present your 2x2 ANOVA analysis, report the main effects and interactions, and include post-hoc tests if necessary.Don't forget figures and tables as necessary.
- **Discussion**: Interpret your findings, link back to the literature, and suggest implications for future research.
- **References**: APA-style references of the works cited.

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9. Supporting Materials

Along with your report, you must submit the following materials: - **Open Data**: The raw data you collected, anonymised where necessary. - **Open Materials**: Any instruments, surveys, or stimuli used in your experiment. Aim to allow perfect replication - **Critical Reflection** (±200 words not included in 2,500 word limit of report - and you can write more if you wish): A brief statement reflecting on the decision-making process, challenges, and any adjustments that were made during the project. How do you feel at point of submission? How do you feel about next year?

Key Tips for Success

- **Attendance**: Active participation in all group meetings and lab sessions is crucial.
- **Collaboration**: Work closely with your group members, but remember, the final write-up and some elements must be your individual work.
- **Paperwork**: Keep a record of your work. Consider this part of the project. It's going to be too much to keep in memory alone, and if you find a cool paper, or a piece of information you want to use in the write-up, it's not uncommon for it to hide when you need it most. Naughty, naughty.

- **Reflection**: Keep a reflective diary of decisions made, challenges faced, and changes in your understanding. You will thank yourself when it comes to the Compulsory Reflective Account and the CHIP elements, which are this!
- **Confidence**: Mistakes are expected! The teaching team will not penalize you for decisions that may seem 'sub-optimal' in retrospect (shows you are learning!). Penalties come from not doing the things we encourage or following the advice/guidelines, or just getting behind and losing track of what your group is doing.

Final Thoughts

The Mini-Dissertation represents the culmination of the skills you've developed over the past year. While it may seem challenging, the extensive support materials and guidance provided are designed to help you every step of the way. The key to success is active engagement – from group discussions to lab sessions, don't hesitate to ask for help when needed.

Hundreds of students have done exactly this before you. The overwhelming majority have even ended up saying they found it useful and not at all as scary as they thought. Some even said they enjoyed it. But when you exclude the people who fail by dint of non-attendance, and even the people who pass but just miss out important bits because they didn't listen, or left it too late, this module will often be your highest mark. It will be the springboard to your 45 credit Final Year Dissertation, where a good mark can really boost your final degree. And the skills you learn here are worth a fortune. Just you wait, years from now, when you least expect it, you'll unleash your critical faculties, dive into some data, or just generally science the s**t out of something, and you'll mutter to yourself "Thank you, Team RM!"

You are very welcome. Smash it!