Choosing a Topic and method for your group project

You have three inter-related choices to make.

1. The **topic** of your project.

This can be anything covered in this module, as long as the topic is something that can be studied ethically and practically. See the lecture material on Ethics from lecture 1. In terms of practicality, remember this has to be submitted by the end of the module, so you can’t study the effects of 3 months of exercise on general mood, for obvious reasons!

1. The **question** you would like to ask with this project

Within a particular topic (e.g. Exercise), there are many potential questions. Do some personality types exercise more than others? Do they choose different kinds of exercise? Does exercise affect how much time people spend studying? Do those who exercise watch less TV? (and so on). Of course, there are also other topics (diet, risk-taking, decision making, memory, social judgements etc).

1. The **research method** you will use to try to answer this question

Depending upon your question, you may be able to approach it using different methods. For example, you might want to look at whether differences between people (such as on a personality measure) are correlated with how much they exercise. **This is Option 1 below**.

Alternately, for the exercise examples given above, you might want to compare groups of people who rate themselves as high vs low on a particular exercise measure (e.g. do you exercise for at least 30 minutes more than 3 times a week? or are you a member of a sports club?),. You could then compare these two groups on another measure such as attendance at lectures, or healthy eating choices. **This is Option 2 below**.

Finally, you could compare performance on an outcome under two conditions. Here you have to be careful because you can’t force people to do exercise vs not. However, you could compare performance on a task such as memory performance in the morning vs the afternoon, or decision making ability in noisy vs quiet conditions and so on. **This is Option 3 below**.

**Option 1: Correlational design**

Choose an outcome measure

Some examples:

Self-reported rates of attendance at lectures.

Belief in fake news.

Face recognition ability

Healthy choices in diet

Willingness to exercise

Self-reported Risk-taking behaviour

etc

Choose an individual difference measure

e.g. Existing measures of personality, attitudes or ability such as

Extraversion

Openness to experience

Conscientiousness

Self-esteem

Religiosity

Etc

<https://ipip.ori.org/newIndexofScaleLabels.htm>

Correlate this measure with a behaviour that you expect it to relate to

You can choose your own examples, but remember that the project has to be both ethical and achievable.

**Option 2: Comparing existing groups (quasi-experimental design)**

Choose an outcome measure

Some examples:

Self-reported rates of attendance at lectures.

Belief in fake news.

Personality measures

Face recognition ability

Healthy choices in diet

Alertness on a task

Biases in reasoning

Self-reported risk taking behaviour

etc

Choose two groups you wish to compare

e.g. Men vs women

Left vs right handed people

Older vs younger people

Science vs Arts students

First born vs later born children

Or self-reported attributes such as

Smokers vs non-smokers

High vs low exercisers

“Morning” vs “Evening” people.

etc

Compare these two groups on behaviour that you expect them to differ on

You can choose your own examples, but remember that the project has to be both ethical and achievable.

**Option 3: Compare behaviour under 2 conditions / sets of instructions**

Choose an outcome measure

Some examples:

Face recognition ability

Alertness on a task

Working memory capacity

Biases in reasoning

Preference for healthy (vs unhealthy) food choices

Risk taking behaviour

etc

Think about the conditions you would like to compare.

These can be environmental / physical:

e.g. noisy vs quiet conditions

Alone, or in the presence of others

With or without a secondary task.

In the morning, or afternoon.

Colour vs B&W pictures

etc

Or they can be instructional.

instructions to prioritise speed vs accuracy (on a task).

Instructions to relax vs get motivated prior to taking a task

Compare these two conditions on a task or outcome of your choice

You can choose your own examples, but remember that the project has to be both ethical and achievable.