

## Lesson 5

# Experimental Methods Research Practical: Planning and Conducting Your Study



### Learning Objectives

- All students **will** formulate a plan for the research practical.
- All students **will** conduct a pilot study in preparation for the research practical.
- All students **should** draft a procedure section for their research practical report.
- All students **could** draft a method section for their research practical report.

### Key Terms

- Briefing
- Consent form
- Debriefing
- Pilot studies

**Extension activity:** Go to [www.hoddereducation.co.uk/psychologyreviewextras](http://www.hoddereducation.co.uk/psychologyreviewextras) and see the additional resources for Psychology Review, Volume 21, Number 2, November 2015: Access a vodcast discussion of ethical issues and a poster about becoming an ethical researcher in psychology.



### Questions to guide your thinking ...

- What should be included on a consent form?
- Think of a study that you have learned about. How would you debrief the participants?
- Why do researchers run pilot studies?
- What is included in the methods section of a research report?
- How do you write the procedure sub-section?

## Ethics: Consent Forms and Debrief Sheets

Ethical issues guide practical choices and decisions at all stages of the research process. An important principle of research is to ensure that participants are able to give their fully informed consent to take part in a study. This means you must *brief* the participants about what is involved in a study, what they will be asked to do and roughly how long it will take. Participants should be asked to sign a consent form to say that they understand this information. The consent form should make it clear that they can withdraw at any time.

### Writing a brief:

A consent form should be appropriate to the target population (e.g. written using age-appropriate language) and should aim to include:

1. The title of the study.
2. An introduction to the purpose of the study with brief details of the background too (you might withhold certain information to prevent participants knowing the aim of the study).
3. Answers to relevant FAQs, such as:
  - a. Do I have to take part? (Explain the right to withdraw at any point.)
  - b. What will happen to me if I take part?
  - c. How long will it take?
  - d. Where will it take place?
  - e. Are there any risks of taking part?
  - f. Who will see the results? Will they be confidential/anonymous?
4. The name and contact details of the researcher (email or phone number).
5. A thank you to the participant for considering taking part in the study.

At the end of the consent form, there is usually a series of statements. The participant confirms their understanding and agreement by ticking a box alongside each statement and signing the form. The statements should include:

1. Confirmation that the participant:
  - a. Has read and understood the information sheet
  - b. Has had the opportunity to ask questions
  - c. Understands that their participation is voluntary and that they are able to withdraw without giving a reason.
  - d. Consents to specific aspects of the study, e.g. being videoed.
2. Their signature and the date.

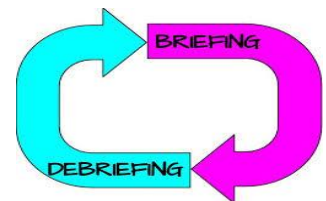


## Debriefing

This is an important way of dealing with **deception** and **reminding** participants of their other ethical rights.

It should be written **so that it can be read out to the participant** and may include the following:

- The true aim of the study.
- If an independent groups design has been used, there should be an outline of **both** conditions of the study. Otherwise, an outline of the study should be given.
- Ask the participants if they have any questions and if so who they can address these to.
- Relevant ethical considerations e.g. remind them of their right to withdraw, privacy, confidentiality etc.
- Offer someone that they can talk to if they are distressed/have been negatively affected by the study.
- Thank the participants for taking part.



For example:

*Thank you for taking part in this experiment. The aim of this study was to investigate the effects of language (i.e. two different lists of words) on the reproduction of a series of abstract figures (pictures) i.e. the effect of language on thought. This was done by splitting the participants into two groups. Each group saw a different list of words. If after reproducing the picture they are distorted towards their given verbal labels then the experiment will show that language affects thought. Please remember that your results are confidential and you can choose to withdraw your results at any time. Do you have any questions?*

## The role of pilot studies

To help foresee any problems in research, a small scale 'pilot study' may be carried out as a trial run before the researchers commit to conducting their full-scale main study.



Pilot studies allow researchers to identify any potential problems in the method/design chosen, the instructions given to participants, procedures, materials and measurements.

These problems can then be rectified without an entire participant sample and a set of stimulus materials being wasted. This can save a lot of time and money.

## Our experimental methods research practical

Our experiment is based on the levels of processing theory of memory devised by Craik and Lockhart (1972). For details of the theory and some supporting evidence, see page 3 of Practical Workbook 1.

Our study will be a relatively simple test of the theory. The study will involve two groups of participants. Group A will be shown five stimulus lists, with each list comprising of four words (see pages 6-10 of the workbook). Group B will be shown stimulus lists with the same words, but these will be paired with related images (see pages 11-15 of the workbook).

After participants have been shown the stimuli, they will be asked to write down all the words they can remember (this is known as 'free recall'). Craik and Lockhart's theory predicts that information that involves images or associations will be processed more deeply and therefore be more memorable. We would therefore expect that Group B participants will recall more items from the lists.

### What you need to do for the practical:

1. Pilot the study to prevent an unexpected problem (e.g. with materials or instructions) from affecting your results.
2. **Before next week's lesson**, you need to recruit and test two participants. One participant will take part in condition A (words only), the other participant will undergo condition B (words and images).
3. You will need to brief each participant and gain their consent (see the forms on pages 17-18 of the workbook).
4. Your participants should be tested separately, using the relevant standardized instructions for Group A and Group B (page 5). Each stimulus list should be presented for approximately 3 seconds with a 5 second interval between lists. You will need to provide participants with a pen and paper so that they can write down the words they remember after being shown the lists.
5. After participants have written down all the words they can remember, debrief them (see page 16).
6. Keep a record of the words correctly recalled by each of your participants and record this information in the table on page 16.
7. **Bring your results to next week's lesson.**



## Writing a method section

The method section of a psychological report is divided into different sections:

### ***Design***

- For experiments – was it a laboratory, field or natural experiment? Which experimental design was used (independent groups, repeated measures or matched pairs)? For any experimental design, you should talk about how you have controlled extraneous variables. What was the independent variable and how was it operationalised? What was the dependent variable and how was it operationalised?
- All decisions should be justified.

### ***Participants***

- Explain who the participants were – number, gender (any other relevant details as long as it does not compromise confidentiality).
- If using an independent groups design, explain how participants were assigned to the conditions.

### ***Apparatus/Materials***

- Consider what materials were used and describe them e.g. consent form, standardised instructions, anything you give the participants to read or look at.

### ***Procedure***

The most important thing here is to make sure that someone could **REPLICATE** (repeat) your study. It is essentially a list of what happened from beginning to end, but written in prose form.

- Outline any standardised instructions given to the participants and what was on the consent form and debrief sheet.
- Explain when and what materials were used, when and where the participants are tested, how long they will have etc.
- Explain what happened in the pilot study using the materials and standardised instructions. Explain any necessary changes.

### ***Ethics***

- An explanation of how ethical issues were addressed within the study.