**Psychology Summer Work**

Psychology is the science of the mind and behaviour. Psychologists investigate human behaviour including obedience, conformity, addictions, memory, psychological disorders (phobias, schizophrenia, depression and OCD) and memory using the scientific process. Students will develop an understanding of how science contributes to our understanding of human behaviour.

All students are encouraged to build upon their knowledge from GCSE Maths and Science to deepen their understanding of psychological investigations and the use of the scientific process in Psychology. At least 10% (28 marks) and 25-30% (72-86 marks) of the overall assessment of psychology will assess mathematical skills and knowledge and understanding of practical research skills. For this reason, as part of the Psychology course students will plan and implement ethical practical research activities.

Task:

1. Use the PowerPoint to complete pages 2-8 of the activity workbook to demonstrate your understanding of the topics/ key concepts
2. Plan and carry out your own research

![C:\Users\sogunfidodo\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\03B79L7U\science_Science_News_12_13.5851858_std[1].gif]()

**Selecting and Applying Research Methods**

* There is a diverse range of research methods that are used in psychology.
* The choice of the method is directed by what the researcher wants to find out.

Is the aim of the research to collective descriptive data or to investigate links between variables?

What sort of links – relational or causal?

Do you want to study the behaviour of groups or individuals?

Causal?

**EXPERIMENT**

Relational?

**CORRELATIONAL**

**ANALYSIS**

Groups?

Individuals?

**CASE STUDY**

Do you need a large sample or more detailed data from individuals?

Do you want to get information by asking for responses or by watching behaviour?

Observing?

**OBSERVATION**

Detail?
**INTERVIEW**

Large scale?

**SURVEY**

|  |  |  |
| --- | --- | --- |
| **Key term**  | **Definition**  | **Example**  |
| **Participants** | * Individuals who take part in psychological investigations.
* Individuals whose behaviour is investigated
 |
| **Aim**  | Psychologist start with a theory which is a general idea about a behaviour and then develop a hypothesis which makes the theory testable.  |
| **Hypothesis**  | Formulated at the beginning of the research process• A clear statement• A prediction• Testable |
| **Experimental Hypothesis**  | Hypothesis for all types of **experiments**- Laboratory, Field, Quasi and Natural |
| **Alternative Hypothesis**  | Hypothesis these are for all types of **non-experiments**: Correlations, Content Analysis, Interviews, observations and questionnaires  |
| **Directional hypothesis (one tailed)**  | * States that there will be a difference between two conditions/ groups
* States the kind of differences or relationship between two conditions or groups of participants
* States which condition will do **better or worse**
 | For example:* Younger adults have better memories than elderly people
* Males are better at map reading than females
 |
| **Non-directional hypothesis****(two tailed)** | * States that there will be a difference between two conditions/ groups
* It **does not** state what the difference will be.
* It does not states which condition will do better or worse
 | For example:* There will be a difference between the amount of information remembered by young adults and the elderly
* There will be a difference between males and females and their ability in map reading
 |
| **Variables**  | Variables are anything that can be **measured or controlled.** | * Height
* Weight
* Intelligence
* Memory capacity
 |
| **Operationalising variables**  | This means that there must be a precise description for all variables that are being measure or controlled.  | **Age**- young adults (18yrs old- 65 yrs old) or the elderly (over 65 yrs old) **Memory retention**- how many words each individual can recall  |
| **Independent Variable (IV)** | Variables that are **manipulated by the experimenter** and have a direct effect (cause a change) on the dependent variable.  | Age (IV) affects memory retention (DV) |
| **Dependent Variable (DV)** | **Affected by changes** in the independent variable |
| **Confounding Variable**  | An **uncontrolled variable** that affects the findings of the investigation.  | * Weather
* Differences in the instructions given by the researcher
* Differences in the materials being used
* Differences between Ps (e.g age/ gender)
 |

**Tips on how to write a hypothesis:**

* Always use the word ‘participant’ in your hypothesis (unless studying non-human animals of course). Never use the words: people, folks, humans etc
* Use the word male and/or female instead of man, woman, boy, girl etc. You can state the age if you are studying a particular age, e.g. Participants aged between 18-19.
* Always operationalise the DV. In other words, say how you are testing the DV, so if it is intelligence, you may operationalise it as ‘IQ’ for instance. Make sure you operationalise any other variable.
* Know the difference between experimental and alternative hypothesis. They are written completely differently and for different kinds of research.

***Task 1: Directional or non-directional?***

1. Pupils studying AS Level Psychology are much happier than those studying AS Geography.

2. There will be a difference between the number of times male and female drivers fail to stop at a red light.

3. Year 10 students are more likely to conform to a teachers incorrect response in a test than Year 11 students.

4. There is a difference between the IQ of boys and girls.

5. Girls are smarter than boys.

***Task 2: Identify the IV and the DV for the following:***

1. Severe punishment causes anxiety

IV

DV

1. There is a difference in the ability of grey and white rats in learning to run a maze

IV

DV

1. Stressful experiences causes headaches

IV

DV

1. Social class affects IQ scores

IV

DV

**Ethical Issues**

All psychological research must conform to the highest ethical standards.

The British Psychological Association (BPS) in their publication <http://beta.bps.org.uk/news-and-policy/bps-code-ethics-and-conduct> ‘Ethical principles for conducting research with human participants” point out:

“In all circumstances, investigators must consider the ethical implications and psychological consequences for the participants in their research”.

Researchers should try to predict and avoid anything that might upset their participants.

The BPS code of ethics, *Ethical Principles for Conducting Research with Human Participants,* covers nine different aspects of ethics that relate to research with human participants:

* 1. **Consent**
	2. **Deception**
	3. **Debriefing**
	4. **Withdrawal from investigation**
	5. **Confidentiality**
	6. **Protection of participants**
	7. **Observational research**
	8. **Giving advice**
	9. **Colleagues**: psychologists have a duty to make sure all research is ethical, and this includes colleagues.

**Use the words below to fill in the blanks.**

active intervention mental children observational research

colleagues participants confidential penalty

consent personality data protection act physical

debriefed psychological deceiving right to withdraw

destroyed risks distress sex

ethical ethical committee informed consent

**1 General:** Researchers must always consider the \_\_\_\_\_\_\_\_\_\_\_\_ implications and the \_\_\_\_\_\_\_\_\_\_\_\_ consequences for the participants in their research. This should be done for all the participants taking into account ethnic, \_\_\_\_\_\_\_\_\_\_\_\_, age and \_\_\_\_\_\_\_\_\_\_\_\_ differences.

**2 Consent:** Researchers should always try to obtain \_\_\_\_\_\_\_\_\_\_\_\_ from the participants. Wherever possible this should be \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_, that is the researcher should explain in as much detail as possible the aim and procedure of the research before starting the study.

**3 Deception:** Researchers must avoid \_\_\_\_\_\_\_\_\_\_\_\_ participants about the type of research if at all possible. If deception is being considered the researcher must get advice from \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ . Sometimes deception is unavoidable but at all times researchers should consider how the deception will affect the \_\_\_\_\_\_\_\_\_\_\_\_.

**4 Debriefing:** Participants should be fully \_\_\_\_\_\_\_\_\_\_\_\_ . This must take the form of \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ i.e. the researcher must be ready to discuss the procedures and findings with the participants.

**5 Right to withdraw:** Researchers must tell participants of their \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_, without \_\_\_\_\_\_\_\_\_\_\_\_, at any time during the study. This might be difficult to achieve with \_\_\_\_\_\_\_\_\_\_\_\_ or with \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_, but it should still be attempted. If a participant withdraws they can ask for their own data to be \_\_\_\_\_\_\_\_\_\_\_\_.

**6 Confidentiality:** Participants have the right to expect that all information they provide will remain \_\_\_\_\_\_\_\_\_\_\_\_ unless they agree beforehand. They are protected by the 1984 \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_.

**7 Protection of participants:** Researchers must protect their participants from \_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_ harm during the study. Participants shouldn’t have to face \_\_\_\_\_\_\_\_\_\_\_\_ greater then those they would face in everyday life.

**Consent Form- Example**

 Hello, I cannot give you all the details about this experiment because you may try to influence or guess the results and then my experiment will have invalid data. I can however tell you loosely that this experiment is about body perception. I will give you full details about the experiment at the end, in a debrief and you may also ask questions at that time. I can tell you that in no way will you be humiliated or harmed and if you feel uncomfortable at the end of the experiment you have the right to withdraw you data. Any data you give will be completely confidential; you do not have to give your name. If you are now happy to take part in my experiment please sign in the space provided. Please remember you can stop taking part at any time.

 I consent to taking part in the above an experiment on body perception.

Signed........................

Name……………………….

Date……………………..

**Debriefing Example**

Debrief

Hello, thank you for taking part in my experiment. The experiment was about how the media affects attitudes towards the body. You looked at images of women of size 8-10 or images of women size 12+. I wanted to see how looking at images of these women would affect how you felt about your own body, I predicted that those of you looking at thinner women would feel more negatively about your body than those of you who looked at images of larger women. Did you know that less than 2% of women featured in the media are obese and that the media portrays thinner women as being more attractive, successful and desirable, Kurman (1976).If you are uncomfortable about the aim of my experiment you can withdraw your data. If you do not choose to withdraw your data, it will be kept completely confidential.

‘I have read and understand the debrief and I am happy for my data to be used’

Signed........................

Name……………………….

Date……………………..

Research suggests that Short Term Memory (STM) cannot hold very much information. You are going to design and carry out an experiment to see whether the capacity of STM differs between two groups: A-level students and older people.

|  |  |
| --- | --- |
| **Aim/ Title of research** | **An experiment to see whether the capacity of STM differs between two groups: young people and older people.** |
| **Hypothesis** |  |
| **Directional or non-directional** |  |
| **Independent variable** |  |
| **Dependent variable** |  |
| **Materials/Apparatus** **(Devise and justify an appropriate task for measuring the capacity of STM. This might be a world list containing about 20 words. Think carefully about the materials you will use and explain why these factors need to be controlled, eg:****• length of words****• type of words****• number of words)** |  |
| **Participants** **(Decide upon and justify your choice of participants for the two conditions (the two age groups). Explain how and why you selected your participants.)**  |  |
| **Instructions/** **Procedure** **(Devise a brief and suitable set of instructions that will be read or given to participants in order to:****• gain their consent to take part****• enable them to carry out the task appropriately)** |  |
| **Write a consent form for your participants** **(please refer to the consent form checklist)** |  |

**Consent Form Checklist**

|  |  |
| --- | --- |
| The name and institution responsible for overseeing the research |  |
| The title of the project |  |
| A clear statement of the purpose of the study |  |
| What participants will be asked to do |  |
| What data will be recorded |  |
| Likely risks or discomfort and any payment |  |
| How anonymity and confidentiality will be ensured and who will have access to the data |  |
| Assurance that participants can withdraw at any point during the study |  |
| A statement that the participant has read and understood what they are agreeing to and have had any questions about the research answered; space for both the participant and researcher to sign the consent form |  |
| Contact details should the participant want to discuss issues later |  |

Results

Produce a summary table of your results

**Young people- over 16 yrs old Older people**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Participant** | **Total words/ letters/ numbers remember**  |  | **Participant** | **Total words/ letters/ numbers remember**  |
| **1** |  | **1** |  |
| **2** |  | **2** |  |
| **3** |  | **3** |  |
| **4** |  | **4** |  |
| **5** |  | **5** |  |
| **6** |  | **6** |  |
| **7** |  | **7** |  |
| **Average number of words/ letters/ numbers recalled** |  | **Average number of words/ letters/ numbers recalled** |  |

Also generate an appropriate graphical display. Ensure these are appropriately labelled and have a title.

