

Unit 1 Trivia

What is your team name? *

Answer Key

Research Methods Questions

An advantage of conducting a correlational research investigation is *

- variables can be controlled for allowing the researchers to manipulate the IV and test their hypothesis
- statistical analysis is a cheaper and faster process than an experiment
- a causal relationship can be developed between the variables studied
- there is no advantage; an experiment is the best way to study ALL variables

Match the following examples of research with the most appropriate method *

	case study	correlational study	experiment	survey
beliefs about refugees and their treatment in Australia	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
an investigation of a child with a rare medical disorder	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
the influence of sleep deprivation on academic performance	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
the affect of smoking on the development of lung cancer	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

An experiment is conducted to test if sleep influences academic performance. All participants are asked to complete a simple logic test prior to the experiment. One group of participants is kept awake all night, while the other participants are monitored to ensure they have 8 hours of sleep overnight. All participants repeat the simple logic test the next morning. The difference between their pre- and post- test scores is recorded. What is the IV of this experiment? *

- number of hours slept overnight
- scores on the simple logic test
- ability to focus after no sleep
- the gender of each participant

In the experiment described above, the DV is? *

- the gender of each participant
- scores on the simple logic test
- ability to focus after no sleep
- the gender of each participant

A possible confounding variable of the experiment above is

- individual differences in ability
- the gender of participants
- practice effects
- there are no confounding variables possible

The main purpose of ethical standards for research is to *

- ensure validity and reliability of the results.
- ensure that the research proceeds scientifically.

- safeguard the rights and wellbeing of participants.
- keep problems with participants to a minimum.

A researcher studied differences in the behaviour of newborn babies who are breast-fed and newborn babies who are bottle-fed. The psychologist conducted the research with 20 mothers and their newborn infants at the Royal Women's Hospital (RWH). The 20 mothers (and infants) were selected from a group of 45 mothers at the RWH who had all volunteered to participate in the experiment. There were another 50 mothers with newborn infants at the hospital, but these mothers did not volunteer to be in the experiment. In this experiment, there were _____ mothers (and their infants) in the sample, and _____ mothers (and their infants) in the population. *

- 20; 95
- 45; 50
- 20; 45
- 45; 95

A researcher interested in the effects of anxiety on exam performance asked research participants to describe how they feel during an exam when they come across a question they know they will get wrong. The participants' responses were tape-recorded so that they could be analysed at a later time. The type of data obtained by the researcher is best described as *

- secondary data
- quantitative data
- numerical data
- qualitative data

When the researcher replayed the tape of participants' responses to

the questions asked in the experiment described in question 3, it was decided to summarise the data using a table which showed the number of times certain anxiety-related words, such as 'worried' and 'scared', and non anxiety-related words such as 'nothing' and 'didn't care', were used. This type of data is best described as *

- secondary data
- quantitative data
- qualitative data
- quantitative and qualitative data

To test the notion that 'two heads are better than one', a psychologist measures how long it takes people working either in groups of two or working alone to solve a problem. The independent variable is *

- the problem
- the number of people working on the problem
- the time it takes to solve the problem
- whether or not the problem is solved

A research hypothesis is *

- a prediction about the results to be obtained for a study
- theory or findings from prior research of interest
- a statement about whether the results apply to the population of research interest
- a statement about the accuracy of the results of a study

The steps in the scientific method are as follows (please select the order 1 - 6) *

1 2 3 4 5 6 7

analyse data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
design the research	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
report findings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
formulate the hypothesis	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
collect data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
interpret data	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
propose a research question	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Validity in research means that *

- the participants knew what they had to do
- the researchers knew what they were doing.
- the research study produced results that accurately measured the behaviour or event that it claimed to measure.
- the researchers obtained results that were consistent and dependable.

A research hypothesis with operationalised variables states *

- whether the results are valid and reliable.
- the sample from which the population was drawn.
- whether the IV and DV can be controlled.
- how the IV and DV will be manipulated and measured.

An extraneous variable is linked to the lack of motivation by participants in an experiment. This type of extraneous variable is best described as a/an _____ variable *

- experimental

- experimenter
- participant
- motivational

A difference between a confounding variable and an extraneous variable is that *

- a confounding variable can become an IV
- an extraneous variable can become an IV
- an extraneous variable may or may not affect the IV
- an extraneous variable may or may not affect the DV

In an experiment, the variable that is manipulated or changed in some way by the experimenter is called the ____ variable, whereas the variable that is measured to find out the effects of the treatment is called the ____ variable *

- control; experimental
 - independent; dependent
 - experimental; control
 - dependent; independent
-
-

Brain Understanding

Over time, new theories and technologies have developed to understand the structure and function of the brain. Order the theories from 1 (earliest idea) to 6 (current idea) *

	1	2	3	4	5	6
brain ablation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
electrical stimulation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
mind-body problem	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
neuroimaging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
phrenology	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
brain vs heart debate	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The outer layer of neural tissue covering the human brain is called the *

- corpus callosum
- cerebral cortex
- meninges
- association cortex

The main function of the spinal cord is to *

- protect the vertebrae
- initiate voluntary muscle movement
- enable sensory neurons to connect directly with motor neurone
- connect the brain and peripheral nervous system

In split-brain experiments a patient is presented with an object in their left visual field. The information is sent to the _____ hemisphere and the patient remarks _____.

- left; I see nothing

- left; I see the object
- right; I see nothing
- right; I see the object

The brain structure involved in regulation of eating, drinking and body temperature is the *

- cerebellum
- reticular formation
- thalamus
- hypothalamus

The brain structure that coordinates bodily movements to ensure precise and smooth execution is the *

- cerebellum
- cerebrum
- medulla
- hypothalamus

The brain area primarily involved in regulating bodily activities that are vital for survival is the *

- cerebral cortex
- hindbrain
- forebrain
- midbrain

In the flight-fight response the _____ nervous system is response for initiating the quick response, while the _____ nervous system is

responsible for returning functioning back to normal. *

- somatic; autonomic
- autonomic; somatic
- sympathetic; parasympathetic
- parasympathetic; sympathetic

The main advantage of a PET scan compared to a CAT scan is that *

- a PET scan provides information about brain movement, whereas a CAT scan provides only structural information
- a PET scan provides information about brain activity, whereas a CAT scan provides only structural information
- a PET scan provides magnetic brain images, whereas a CAT scan provides computerised cross-sectional brain images
- a Pet scan is non-invasive, whereas a CAT scan is invasive because radiation is used

Which of the following are examples of modern neuroimaging techniques *

- fMRI
- MRI
- ablation
- PET
- CT
- electric stimulation

The hindbrain consist of the following structures *

- cerebellum
- reticular formation
- hypothalamus

- hypothalamus
- thalamus
- cerebrum
- pons
- medulla

The midbrain consist of the following structures *

- cerebellum
- reticular formation
- hypothalamus
- thalamus
- cerebrum
- pons
- medulla

A neurosurgeon electrically stimulated parts of a patient's primary somatosensory cortex. If the patient was conscious during the procedure, which of the following was probably experienced? *

- 'hearing' a faint sound
- 'seeing' random visual patterns
- a sense of having the skin touched
- movement of one or more of the larger body parts

If injured, the _____ is likely to adversely affect mental abilities such as symbolic thinking, planning and decision making. *

- forebrain
- midbrain
- hindbrain

cerebellum

Broca's area is located in the _____ lobe, whereas, Wernicke's area is located in the _____ lobe. *

- frontal; occipital
- frontal; temporal
- occipital; temporal
- occipital; frontal

Match the sections of the neuron to the appropriate description *

	myelin sheath	axon	dendrite	synapse	cell body	nodes of ranvier
the insulating covering that surrounds the axon	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a gap between two nerve cells where impulses pass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
contains the nucleus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
a gap in the myelin sheath of a nerve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
long thread-like part of a nerve cell along which impulses are conducted	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
the branches that receive impulses from other cells	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

____1____ neuron cells send sensory information to the brain via ____2____, which pass the message to ____3____ neuron cells to initiate movement. *

	1	2	3
motor	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

sensory



interneuron



The study of cranial shape to predict personality was known as *

- brain ablation
- phrenology
- electrical stimulation
- craniology

Synaptogenesis *

- is an acquired brain injury
- starts before birth
- starts after birth
- refines neural connections

When neural connections are repeatedly used, then it is likely they will *

- strengthen
- be pruned
- disappear
- weaken

The last brain area to reach maturity tends to be the *

- motor cortex
- sensory cortex
- cerebral cortex

Classify the following changes caused by a severe brain injury as a biological, psychological or social change *

	Biological	Psychological	Social
Inability to maintain focus	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Damaged neural connections	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Random outbursts of anger	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Lack of desire to spend time with family	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Anxiety at parties	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Theories of Development & Mental Health

Which of the following can be considered to be a developmental change? *

- being in a good mood after getting back a maths test result
- trying bungee jumping for the first time
- having a good night's sleep after not having slept for three nights
- regularly speaking in public without getting anxious after having learnt a strategy to manage anxiety

Which of the following is most correct about the effects on psychological development? *

- Heredity is more important than the environment in shaping psychological development
- The environment is more important than heredity in shaping psychological development.
- Environmental influences are stronger than the influence of heredity in psychological development.
- Genes provide the plan for how development will proceed and environmental influences determine how that plan unfolds in determining psychological development.

Piaget's theory describes _____ development *

- social
- cognitive
- emotional
- none of the above

According to Piaget, logical and abstract thinking are not consistently apparent until an individual has reached the ____ stage. *

- sensorimotor
- pre-operational
- formal operational
- concrete operational

Classify the following achievements into each stage *

	sensorimotor	pre-operational	formal operational	concrete operational
object permanence	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
idealistic thinking	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
egocentric thinking	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

- | | | | | |
|----------------|-----------------------|----------------------------------|-----------------------|----------------------------------|
| transformation | <input type="radio"/> | <input checked="" type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| conservation | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input checked="" type="radio"/> |

A mental disorder is best described as *

- maladaptive behaviour
- a mild and temporary change in the way a person thinks, feels and behaves
- a mental condition that will usually resolve itself without treatment
- a diagnosable psychological condition that significantly disrupts how a person usually thinks, feels and behaves

Which of the following is not a biological factors that could contribute to the development of a mental disorder *

- social stress
- genetic inheritance
- dopamine activity
- enlarged ventricles

The biopsychosocial model explains the development of a personality disorder by emphasising *

- how biological factors influence psychological factors, which in turn influence social factors.
- the relative contribution of biological, psychological and social factors.
- the interaction of biological, psychological and social factors.
- the impact of underlying biological factors on psychological and social factors.

Mood is best described as *

- irritability
- depression
- mania
- an emotional state

All personality disorders are characterised by *

- distress
- inflexible behaviour
- adaptive behaviour
- erratic behaviour and disregard for others

The DSM, Diagnostic and _____ Manual of Mental Disorders, is used by psychologist to *

- statistical
- symptoms
- labelling
- explanatory

Judging normality or abnormality on the basis of what most people do or do not do reflects the _____ approach *

- historical
 - statistical
 - functional
 - situational
-

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