

Name: _____ Teacher: _____

Mark: /47

Percentage: %

ANSWER KEY

Section One: Research methods

(10 marks)

Question 1

(6 marks)

Dr Sarmiento is researching localisation of function in the brain. She asks Paul, one of her stroke patients, to undertake a series of tasks so she can observe the possible changes to localisation of function as a result of his stroke.

- (a) Dr Sarmiento explained the nature and purpose of the tasks to Paul before he agreed to participate in her research. State the ethical principle that Dr Sarmiento followed. (1 mark)

Informed consent

- (b) Identify the type of sampling used in the study. (1 mark)

Convenience sampling

- (c) State whether the method Dr Sarmiento used was experimental or non-experimental. (1 mark)

Non-experimental

- (c) State the specific type of method this study used and explain one advantage of this method. (3 marks)

Case study (1)Produces highly detailed results (1)Provides insight ^{or} for future researchFurther explanation of advantage (1)

Question 2**(4 marks)**

As part of an experiment, a psychologist records the number of correct responses on a memory test. He records the following scores: 11, 15, 17, 24, 19, 27, 28, 15, 15, 15, 19, 16. Work out the mode, median and range for this data.

(a) Mode: 15

(b) Median: 17

(c) Mean: $221 \div 12 = 18.42$ (18)

(c) Range: 17

Section Two: Short answer**(18 marks)****Question 3****(3 marks)**

David was born in England, but when he was five years old, his family moved to Australia. When David started school in Australia, the other boys teased him because they did not like his English accent; they wanted him to speak with an Australian accent. David quickly learned to speak with an Australian accent at school so that the boys would stop teasing him.

- (a) State the type of reinforcement the boys at school used in order for David to quickly learn to speak with an Australian accent. (1 mark)

Negative reinforcement

- (b) Mr Zhang, the class teacher, tried to make the boys stop teasing David. Mr Zhang's strategy was to take away recess time from any boy he caught teasing David. State the name of this strategy. (1 mark)

Negative punishment

- (c) Mr Zhang's second strategy was to praise the boys if they were not teasing David when he checked on them. State the name of this strategy. (1 mark)

Positive reinforcement

Question 4**(3 marks)**

Shailyn is drinking a coffee during recess at school.

(a) State the class of psychoactive drug that she has taken.

(1 mark)

Stimulant

(b) Identify one psychological effect of this drug:

(1 mark)

Increased feelings of excitement, higher energy level
increased confidence

(c) Identify one physiological effect of this drug.

(1 mark)

speeds up activity in the central nervous system,
increases heart rate, rapid breathing

Question 5**(12 marks)**

Cara began to crawl at 10 months and started to read and write simple words at age four. Her parents tried to teach her to walk, read and write at the earliest possible age by demonstrating the desired behaviour, and then smiling and clapping if Cara reproduced a similar behaviour.

(a) In regards to Cara learning to walk, read and write, identify the two (2) types of learning used by Cara's parents and explain how both were implemented.

(6 marks)

observational learning (1) and operant conditioning (1)

- Cara observed (1) her parents walking, reading and writing and replicated the behaviour (1)

- Cara was positively reinforced (1) each time she demonstrated the desired behaviour through her parents smiling and clapping. (1)

(b) State the type of learning that involves the element of extinction.

(1 mark)

Classical Conditioning

(c) Bayley wanted to teach his dog, Misha, to sit on command. When first teaching Misha, Bayley would say 'sit' and then would give Misha a dog biscuit every time Misha sat on command. After a number of training sessions, Bayley noticed that Misha began to salivate whenever he said 'sit'.

(i) The neutral stimulus is: Saying 'sit' (1)

(ii) The unconditioned stimulus is: Dog biscuit (1)

(iii) The unconditioned response is: Salivating (1)

(iv) The conditioned stimulus is: Saying 'sit' (1)

(v) The conditioned response is: Salivating (1)

Operant conditioning (1)

- **A definition of the type of learning demonstrated by Kate.**

Definition: a learning process in which the likelihood of behaviour being repeated is determined by the consequences of that behaviour (1).

- **Definition of the term 'reinforcement'.**

Definition: Any event that increases the likelihood that a response or behaviour will occur again (1).

- **The reinforcement present in Kate's scenario.**

Feeling of relief and eating baked beans after opening the can (1).

- **Two theorists and their research, the main findings/conclusions of their research and the reinforcements used in the research.**

Name of theorist: Skinner (1).

Description of Skinner box with mouse: a typical Skinner box is a small, cage-like chamber. There is little in the box to stimulate the animal. The walls are bare, except for a metal lever, one or more stimulating lights, and a tray or hatch into which food pellets can be dispensed (1).

Mouse presses lever (1) to get food pellet or drop of water (1).

Reinforcement was food pellet or drop of water (1).

Main finding: The rat did not acquire new skills – the rat was already physically able to depress the lever. The food reward only altered how frequently the rat pressed the lever. In operant conditioning, reinforcement is used to alter the frequency of responses, or to mould them into new patterns. (1).

Name of theorist: Thorndike (1).

Description of puzzle box with cat: he placed a hungry cat inside a wooden box (puzzle box). The box was enclosed on all sides but the cat could see out and even stick its paws out between the wooden slats. The only way for the cat to escape was through a door, which could be opened by pressing a lever inside the box (1).

Cat presses lever (1) to get out and eat fish (1).

Reinforcement was fish (1).

Main finding: Thorndike proposed that the cats had learnt to obtain the fish through acting on their environment in a trial-and-error fashion OR the probability that a response will be repeated is strengthened each time the response is followed by a satisfying state of affairs, while the probability of a response not being repeated is strengthened each time the response is followed by an unsatisfying state of affairs (1).

Quality of extended response	
Well-constructed response with an introduction, conclusion, and well-developed sentences and paragraphs. Consistent use of appropriate psychological language.	3
Coherent response with adequate sentence and paragraph structure. Use of clear everyday language.	2
Incoherent response, lack of paragraph structure and/or poor sentence structure. Colloquial language or poor English expression.	1
Response is too brief or irrelevant to be awarded marks	0