2012 Assessment Report

2012   Psychology GA 3: Examination 2

GENERAL COMMENTS

Students' overall performance on the November 2012 Psychology examination was good.

As in previous years, the mean scores for the multiple-choice section were higher than for other sections of the examination.

In Section B, problems arose when students failed to apply their knowledge to a specific situation; for example, 'Use an example to explain …' (Question 1), 'With reference to Lazarus and Folkman's Transactional Model …' (Question 4), '… implement the conditioning techniques you chose in part a. to change each behaviour' (Question 4b) and 'Based on these results …' (Question 10b).

Although poor spelling is not penalised, students' meaning must be clear and unambiguous. Students should be able to spell Psychology terms correctly.

SPECIFIC INFORMATION

Section A – Multiple-choice questions

The table below indicates the percentage of students who chose each option. The correct answer is indicated by shading.

Question	% A	% B	% C	% D	Comments
1	10	4	81	5	
2	18	1	9	72	
3	1	13	3	82	
4	10	75	3	12	
5	12	76	9	3	
6	4	1	93	3	
7	3	7	89	0	
8	73	19	4	4	
9	6	73	2	19	
10	88	4	6	2	
11	1	12	28	59	'Negative reinforcement' (option D) is the correct answer, as it is more specific than 'reinforcement' (option C).
12	3	2	81	14	
13	86	8	3	2	
14	6	90	2	2	
15	12	81	4	3	
16	71	10	9	10	
17	0	12	86	1	
18	3	3	80	14	
19	95	2	1	1	
20	9	90	1	1	
21	13	3	20	64	
22	2	87	4	7	
23	79	11	3	7	
24	74	7	1	18	
25	1	80	7	12	
26	4	79	8	8	
27	86	7	5	1	
28	3	36	4	57	Eustress is a form of stress and is thus potentially harmful; therefore, option B is incorrect.
29	2	74	19	5	

Question	% A	% B	% C	% D	Comments
30	22	53	2	22	Stress hormones continue to be released as long as the body is required to respond to the stressor. Options A and D are therefore incorrect.
31	3	86	4	6	
32	15	48	32	4	Option C reflects a criticism – physiological response to stress is not considered in this model.
33	19	5	72	4	
34	11	4	63	22	
35	5	11	10	74	
36	4	82	4	9	
37	76	13	3	7	
38	80	3	4	12	
39	1	2	81	16	
40	15	61	8	16	
41	4	5	84	7	
42	5	12	10	73	
43	76	12	6	6	
44	10	74	9	6	
45	7	21	52	20	The fact that many students chose option B or D suggests that the concept of 'one-trial learning' was not well understood.

Section B – Short answer questions

This report provides sample answers or an indication of what the answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

Question 1

Marks	0	1	2	3	Average
%	6	13	36	45	2.2

Reflex actions are unlearned, simple, automatic/involuntary responses that do not require prior experience. For example, a person will blink when a puff of air is blown into the eye.

Important points to be made included
- it is a simple behaviour
- it is an unlearned behaviour/genetically programmed/innate/not due to past experience
- it is a non-species specific action
- an appropriate example
- correct explanation of a reflex action.

If students did not explain using an appropriate example, the score was limited to one mark.

Question 2a.

Marks	0	1	Average
%	13	87	0.9

Either of
- Polly breaking through the egg shell/hatching (maturation)
- screeching (maturation).

Question 2b.

Marks	0	1	Average
%	15	85	0.9

Polly being excited and screeching when she hears the aviary door open.

Students were required to identify both the stimulus and the response.

Question 2c.

Marks	0	1	2	3	Average
%	16	16	33	35	**1.9**

Marco could use shaping. When Polly makes an appropriate sound, Marco could reward her with a food treat, and then reward only sounds that are successively closer to the desired word sound until a word is said.

'Operant conditioning', 'shaping' and 'method of successive approximations' were all appropriate responses. Many students did not explain the process of learning.

It was essential that responses related to the scenario. A generic description of an appropriate technique could only achieve a maximum of one mark.

Question 3

Marks	0	1	2	Average
%	22	63	15	**1.0**

fMRI can take numerous highly detailed pictures in rapid succession during the task, indicating changes in directing blood flow to specific areas of the brain as the learning occurs.

Important points to be made included
- fMRI indicates active areas (structure) of the brain (by showing increased blood flow)
- fMRI gives high resolution (or highly contrasted) information
- changes can be observed in real time during the learning task.

Question 4a.

Marks	0	1	2	Average
%	30	48	22	**0.9**

Both of
- challenge/beneficial – for example, look for another job, use the time to travel, use the time to upskill or have more time for study
- threat/harmful/loss – for example, can't afford to study, panic, etc.

Various terms are used in the literature to describe these two types of appraisals, thus descriptions of the appraisals rather than naming the appraisal were acceptable. However, 'irrelevant' and 'benign' were not appropriate terms for this scenario.

Question 4b.

Marks	0	1	2	Average
%	16	36	48	**1.3**

- meditation: enabling Maddie to step back and take an objective view of the situation
- escape-avoidance: refusing to think about the situation and losing herself in her studies

Other possibilities included those identified by Folkman and Lazarus
- disclaiming
- escape-avoidance
- accepting responsibility or blame
- exercising self-control
- positive reappraisal.

Also acceptable were
- denial
- distancing
- avoiding
- minimising
- acceptance
- reframing cognition (CBT)
- relaxation
- physical exercise.

A maximum of one mark was awarded if the response did not appropriately relate to the scenario.

Question 5a.

Marks	0	1	2	Average
%	0	1	99	**2.0**

- swearing less: punishment or negative reinforcement
- doing more homework: negative reinforcement or punishment

Most students gained full marks for this question as both alternatives could be applied to each behaviour.

Question 5b.

Marks	0	1	2	Average
%	14	48	38	**1.3**

Behaviour 1: swearing
- He could choose punishment; for example, he could make his son put a dollar in the swear jar each time he swears, or he could speak sharply to his son every time he swears.
  or
- He could choose negative reinforcement; for example, he could turn off his 'easy listening' radio station whenever his son does not swear for 10 minutes.

Behaviour 2: homework
- He could choose negative reinforcement; for example, he could turn off his 'easy listening' radio station whenever his son does 10 minutes of homework.
  or
- He could choose punishment for all non-homework behaviours.

It was essential for the strategy described to be congruent with that identified in part a. Many students indicated 'negative reinforcement' in part a. and subsequently described 'punishment'. The contrast between these two clearly requires emphasis in teaching.

Question 6

Marks	0	1	2	Average
%	30	45	25	**1.0**

Either of
- the key difference is in the role of cognition. In trial-and error learning, with the cat, there is no cognition involved it is purely behavioural; whereas in insight learning there is a sudden realisation (cognition/ understanding) of the solution (cognitive behaviourism)
- the key difference is in terms of timing of learning. Thorndike showed that there was gradual and erratic improvement in the time taken to achieve the solution; whereas Kohler showed that learning was sudden and complete.

Accurate and labelled graphs showing the contrast in timing were acceptable.

Question 7

Marks	0	1	2	Average
%	23	49	28	**1.1**

Any two of
- to make a diagnosis
- so that psychologists, psychiatrists and mental health workers can effectively communicate and have the same understanding of what a diagnosis means
- it provides a framework for the study of the outcome of mental illnesses
- it allows for the formation of a prognosis
- it facilitates scientific research into possible causes and treatments of psychiatric disorders.

Many students answered this question as if it had read '… categorical classification system …'

Question 8

Marks	0	1	2	Average
%	25	24	51	**1.3**

Dimensional approaches (any two of)
- provide understanding of the relationship among bio-psychosocial variables
- help reduce stigma
- help reduce labelling/stereotyping
- help to identify factors that have the largest impact on wellbeing
- provide a richer and more detailed description of the patient's condition compared with categorical approaches.

Question 9

Marks	0	1	2	Average
%	17	65	18	**1.0**

Either of
- distress involves a negative psychological response to a perceived stressor, whereas eustress involves a positive psychological response to a perceived stressor
- in distress there is some perception of the stressor to be harmful, threatening or negative, whereas in eustress there is a perception of the stressor to be motivating, challenging or positive.

Students should note that eustress is still stress and, though in moderation it can be beneficial to health, if prolonged there will be negative effects similar to those experienced from prolonged distress.

Question 10a.

Marks	0	1	Average
%	66	34	**0.4**

Either of
- the sample is not representative of the population of research interest
- not every member of the population of research interest had an equal chance of being selected.

Simply stating 'convenience sample' was not sufficient to outline a weakness as requested. Some students stated that '… the sample was random and not stratified'; this suggests that these students do not understand the concept of random sampling.

Question 10b.

Marks	0	1	2	Average
%	47	43	10	**0.6**

No conclusion can be drawn because the results shown are descriptive statistics and are not inferential statistics.

A statement that no p-value can be calculated was also acceptable.

Both parts of this question were poorly answered, suggesting lack of understanding of sampling procedures and statistical inference.

Questions 11, 12 and 13

Question chosen	None	11	12	13
%	1	37	29	34

Part a.

Marks	0	1	2	Average
%	9	12	79	**1.7**

Part b.

Marks	0	1	2	3	4	Average
%	25	20	22	17	17	**1.8**

Part a. of each option related to factors that may contribute to the disorder and was generally well answered for each of the options. Part b. of each option related to the co-therapeutic roles of medication and psychotherapy in treatment.

Question 11 – Mood disorder: major depression
11a.
Poverty: people may be highly stressed and feel helpless when they never know if they will have enough money to buy food or pay bills.

Other stressors could include social isolation and abuse.

11b.
- Antidepressants: These medications are used to help relieve symptoms in the treatment of major depression. One example is SSRIs (selective serotonin reuptake inhibitors), which reduce the reuptake of serotonin, therefore increasing the level of serotonin in the synaptic cleft and enhancing mood by increasing the number of positive neural impulses.
- Cognitive behavioural therapy: This involves working with a therapist to identify dysfunctional beliefs, getting the patient to look for examples that challenge such thoughts, then identifying appropriate replacement thoughts.

SNRIs, MAOIs, hypericum (St John's Wort) and tricyclic medications could also have been described. Note that SSRIs do not increase the amount of serotonin in the body. By inhibiting reuptake into the pre-synaptic neuron, the same quantity of serotonin released enables increased transmission of neural impulses.

Question 12 – Addictive disorder: gambling
12a.
Social permission (acceptance) of gambling opportunities: society's customs regard it as legitimate.

Also acceptable were social learning (vicarious learning), modelling and the role of schedules of reinforcement in operant learning.

12b.
- Dopamine reward system: This is a neural pathway that delivers rewards or pleasurable experiences when stimulated. Inhibiting the dopamine reward system with a dopamine antagonist/naltrexone/blocker can result in decreased subjective feelings of pleasure and therefore not seeking pleasure through gambling.
- Cognitive behavioural therapy: This aims to identify the cognitive distortions (for example, the illusion of control and/or gamblers fallacy) that lead to flawed decision-making. These beliefs are then replaced with realistic/appropriate thoughts about gambling. (The behavioural component of CBT focuses on managing the arousal/anxiety/tension underpinning the urge to gamble.)

Question 13 – Psychotic disorder: schizophrenia
13a.
Any of
- genetic predisposition: genetic studies have shown a high level of inheritability factors in schizophrenia
- drug-induced onset: provided that the genetic predisposition exists, it has been shown that drug usage considerably increases the chances of schizophrenia

- overproduction of dopamine
- biological trauma: acquired brain injury (road accident, bacterial).

13b.
- Antipsychotic medications: Drugs such as neuroleptics or major tranquilisers reduce the symptoms of psychosis by blocking dopamine activity (these drugs relieve symptoms but do not cure).
- Cognitive remediation therapy: This is a training technique to promote problem-solving skills; for example, reasoning, memory, decision-making, organisation and higher-level cognitive functioning.

Other relevant information included
- 'typical' antipsychotics are dopamine antagonists (drugs given to treat schizophrenia for some individuals) and block dopamine receptors; some research suggests excessive activity of dopamine is related to schizophrenia
- 'atypical' antipsychotics treat negative (flat affect, withdrawal) as well as positive symptoms
- research is showing that reduction of glutamate can inhibit dopamine production, so medications acting on glutamate are recent developments in the treatment of schizophrenia.

Many students described cognitive behavioural therapy (CBT) rather than cognitive remediation therapy (CRT). CBT involves assisting the individual to identify and change the thoughts responsible for maintaining their symptoms. Cognitive remediation (problem-focused coping) teaches specific information-processing skills targeted at one or more cognitive difficulties. It focuses on decreasing the everyday problems experienced by schizophrenic individuals with cognitive difficulties such as attention and concentration.

Section C – Extended-answer question

Marks	0	1	2	3	4	5	6	7	8	9	10	Average
%	4	5	8	11	13	15	14	13	9	5	2	**5.1**

In general, this question this was well answered.

Research hypothesis
It is predicted that systematic desensitisation will reduce the phobic responses in healthy adults suffering from the simple phobia of snakes.

Identification of operationalised variables
- IV: use/non-use of systematic desensitisation in the treatment of the simple phobia of snakes
- DV: classification on DSM-IV of presence or absence of a simple phobia

Advantages and disadvantages of using an independent groups design for this research
Advantages
- quick and easy to do
- no order effects
- the experiment can all be done at once
- there is less chance for participants to drop out

Disadvantages
- there is less control over participant variables
- more participants are needed than for repeated measures or matched participants

Ethical considerations
- Treatment is withheld from some participants.
- No informed consent has been mentioned for this study.
- There is no mention of debriefing of participants.

Conclusions/generalisations
Conclusion: There was a significant reduction in the number of healthy adults with snake phobias after treatment with systematic desensitisation compared with patients who received no treatment.

A generalisation can be made to healthy adults suffering from the simple phobia of snakes, but this is limited because of the small sample size; there is no information about sampling procedures and the likely unrepresentative sample. It is therefore difficult to make valid generalisations.