



TASK 6
YEAR 12 ATAR PSYCHOLOGY
UNIT 4
RESPONSE TEST

Name: Abdullah

20 (1)
 1 A B D E
 4 2 2 3

Syllabus points

- Applications of Psychology to Health: stress as defined by Selye (1936), models of stress, health related consequences of stress – maladaptive and adaptive coping strategies
- Science Inquiry: Ethical guidelines and practices for psychological research, Formulating research, Methodology, Processing and analysing data.

Conditions

- Reading time: 5 minutes
- Working time: 50 minutes

Task Weighting

- 8% total weighting

Structure of this paper

Section	Number of questions available	Number of questions to be attempted	Suggested working time (minutes)	Marks	Score
Section One: Short Answer	2	2	35	33	
Section Two: Extended Response	1	1	15	16	
Total				49	

25 33
 16 12

Section One: Short Answer Response

(33 Marks)

This section has two questions. Write your answers in the spaces provided.
Suggested working time: 35 minutes.

Question One

(13 marks)

Mrs Lee and her Psychology class wanted to test their theory that different types of meditation techniques would improve stress levels before exams. The class collected participants from their own school; Year 7's, Year 9's, Year 11's, and Year 12's. The participants were aged between 11 and 18 years old and were randomly allocated into three groups. Group 1 practices mindfulness once a day and group 2 practice Mantra meditation once a day (a practice that involves repeating a word, phrase, or sound to bring about mental focus and clarity). Group 3 practiced no meditation beyond their normal daily routine. At the end of a two-month trial, a week before the exam period, all the participants completed a stress test.

The following results were collected:

	Mean Score on Stress Test (out of 100)
Group 1: Mindfulness	57
Group 2: Mantra Meditation	65
Group 3: No Meditation	79

A statistical test on the difference between the effect of practicing meditation verses no meditation on stress found that $p = 0.47$

- a) Suggest a directional hypothesis that the class would have developed for this study.

(4 marks)

It is hypothesised that participants from year 7, 9, 11 and 12 were sampled ~~and~~ by convenience sampling who were aged 11-18 years old were split into 3 groups and at the end of the 2 month trial, the group ~~who~~ 1, who practiced mindfulness once a day scored the lowest on a stress test compared to group 2 and 3 who practiced Mantra meditation once a day and No meditation.

- b) Identify two possible sources of error in the conduction of this experiment. (2 marks)

- Other factors aren't taken into account, such
 - a) social life, @work and family which can cause stress.
- Their preparation for the exam could be different
 - c) Define stress as defined by Selye (1936)
stress is the non specific response of the body to any demand (psychological or physiological)

- d) Outline what type/nature of stressor that being stressed about the upcoming exam is categorised by. (2 marks)

Psychological stressor. This is where the stress is caused by the individual's cognitions.

- e) Name the type of stress these students are experiencing due to exam preparation and outline what this means. (3 marks)

distress preparing for the exam. This type of stress is positive and enhances motivation. E.g. ~~studying~~ studying for the exam can be stressful, but helps them stay motivated.

Question Two**(20 marks)**

Hugh recently graduated University and was travelling to his first big job interview. Along the way he noticed his car tire had started to go flat and needed replacing. Hugh was panicked and felt instantly stressed about making it on time for the job interview. Luckily a repair shop was close by, and he managed to get it replaced almost instantly.

- a) Describe the duration of the stressor. (1 mark)

Acute (short term) and chronic (long term)

- b) Identify the stage of stress Hugh was in when realising he had a flat tire and outline the characteristics of this stage. (4 marks)

Alarm stage, this is where the amygdala sends a signal to the hypothalamus which then activates the sympathetic Nervous system, which secretes stress hormones such as Cortisol, Adrenaline, and nor-adrenaline from the adrenal glands. This stage occurs within 6-48 hours of the initial stressor and is the first stage. Hugh realised he had a flat tire and would miss his interview so he got stressed.

Hugh unfortunately did not get offered the job position, and it is now 3 months later, and he has failed to secure another interview opportunity. His financial situation has been a serious stressor of his for these past few months.

- c) Explain what may happen if Hugh is unable to resolve the stress, including both short-term and long-term impacts. (5 marks)

Exhaustion Hugh is now in the exhaustion stage which is the final one. If there is prolonged periods of stress, the body's blood sugar drops which causes problems. The short term effects are decreased motivation and fatigue. The long term effects are depression/anxiety and the immune system also weakens which can lead to disease such as heart disease. If Hugh doesn't resolve this stress, he may experience those long term and short term effects.

Due to the prolonged stress, Hugh decides to visit a psychologist, seeking help and support in managing his stress. The psychologist decides to assess Hugh's vulnerability to stress through The Social Readjustment Scale, developed by Homes and Rahe (1967).

- d) Name the type of self-report measure used in the Social Readjustment Scale. (1 mark) 1

Linkert scale

- e) Outline one strength and one limitation of this measurement tool. (2 marks) 2

strength- Quantitative data, so it can be analysed statistically.

limitation- Respondents can make up their own fake scores as it is subjective.

- f) Using Lazarus and Folkman's (1984) theory, outline the role of the following cognitive appraisals and apply them to Hugh. (4 mark) 2

Primary: This is an initial assessment of the stress situation. Hugh can't find a job and becomes stressed which is impacting his health.

Secondary: This is an evaluation of the stress and to see what can be done to stop it. He goes and visits a psychologist which helps him manage the stress.

- g) Explain the method of coping Hugh is using in the scenario. Adaptive, problem (3 mark) 2

Adaptive method of coping is being used by Hugh. This is ~~not~~ a positive method of coping which is healthy and reduces the stress. He visits the psychologist which will help him deal with the stress.

Section Two: Extended Response

(16 Marks)

This section has **one** question. Write your answers in the spaces provided.

Suggested working time: 15 minutes.

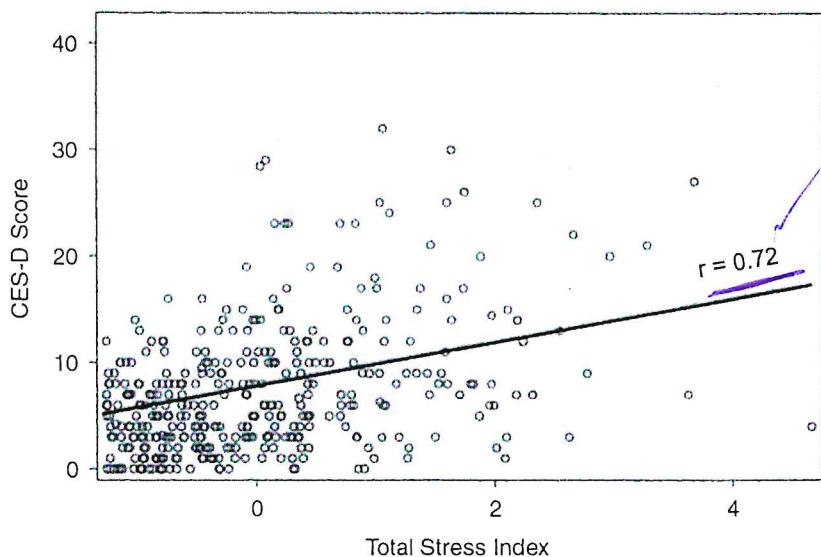
Question three

(16 marks)

Psychology students at Harvard University investigated the relationship between occupational stress and depressive symptoms among coal miners. The participants were 364 coal miners from Ohio, America. The study was approved by the internal review board of Harvard University.

A total stress index score was calculated for each miner to measure the level of stress they experience as part of their occupation. The Centre for Epidemiologic Studies Depression (CES-D) scale was used. It contains 20 item that are self-rated on a four-point Likert scale according to how often each symptom occurred in the past week. The sum of the scores represents the overall (CES-D) score between 0 to 60. A score of greater than 16 is considered indicative of depression. The scatterplot below shows the results for the study.

Figure 1: predicted mean CES-D score by miner's stress index



Notes: Adjusted for age, sex, race/ethnicity, alcohol intake and smoking status.

In a series of questionnaires used to gather qualitative data, the miner's reported threat of harm (intentional and unintentional), excessive work in hard conditions and a lack of support from supervisors as their three main stressors.

In your answer, refer to the above scenario by creating a well-constructed response, addressing the following:

1. Outline what stress is according to Lazarus and Folkman (1984) and identify two types of stressors that the miner's experience in their work. (4 marks)
2. The university's Internal Review Board is an example of an ethics committee. Describe the role of an ethics committee and outline two ethical guidelines that this committee would monitor during the study, stating how this would occur. (6 marks)
3. Based on the data illustrated in Figure 1 on page 24, comment on the relationship between stress and depressive symptoms. (4 marks)
4. Describe how psychological stress arises according to Lazarus and Folkman (1984) (2 marks)

positive

r = moderate / strong 0.72

- direction
- strength

12

4 3

5

3

1

Question number: 3

Stress is the non-specific response of the body to any demand (psychological or physiological). The two types of stressors that miners experience in their work are environmental stressors and psychological. Environmental stressors are stressors that arise from the individual's surroundings. Coal miners work in extreme weather heat conditions which can be very hot and they also are exposed to harmful chemicals. Psychological stressors are stressors to do with the individual and their cognition. The miners are away from their families working in the middle of nowhere which can make them stressed and lonely.

The ethics committee ensures that the experiment which is conducted by the experimenter is safe, secure and does more good than bad as well as is ethically appropriate. They have to approve of the experiment before it's conducted. During the study, the ethics committee would monitor ~~confidential~~ privacy and informed consent. Privacy is the right of the participant to

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stay anonymous and not have their name, address, and personal details leaked. They could refer to the participants as participant 1, 2, 3 instead of their ~~real name~~. Informed consent is where the participant has to know what they are participating in which includes the aim of the study, any harm, their rights and must state that they can withdraw at any point. This is all on a form, which has to be signed by the participant, and if the participant is under 18 years old, the legal ~~guardian~~ guardian has to sign it.

In the study which is the predicted mean of the CES-D scores by miners stress index, it can be seen that there is a positive, and a ~~moderate~~ ^{strong} correlation between the total stress index and CES-D ~~score~~ score. A correlation coefficient of 0.72 ~~states~~ states that it is positive and strong. Other factors aren't accounted for, that may of caused the stress such as family or social life, which can reduce the validity.

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Psychological stress is stress that ~~arises~~ happens from the individual and their cognitions. This is within them selves. It arises from situations such as ~~not~~ relationship changes. ~~and~~

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END OF TEST