



TASK 6
YEAR 12 ATAR PSYCHOLOGY
UNIT 4
RESPONSE TEST

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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	

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 school aged children between 11 to 18 years old who practice mindfulness once a day over a two-month trial will score lower on a stress test than children who practise mantra meditation once a day or no meditation at all over this trial period demonstrating that they are less stressed in comparison to the other groups.

- * Subjective
 - * Convinced
 - * Study habits.

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

Two possible sources of error in the conclusion of the experiment
of the experiment is the use of convenience sampling, likely leading to bias in the results. Additionally,
they did not consider or screen the ~~from~~^{stress} results of individuals prior to beginning the trial, thereby the amount of
information they can gather, and the validity of the results.

- c) Define stress as defined by Selye (1936) (2 marks)

Stress according to Selye (1936) refers to the non-specific response of the body to any demand, physiological and psychological.

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

- This would be categorised as Psychological stressor.
A psychological stressor refers to an internal source of stress arising from an individual's thoughts, perceptions, and emotions. It is categorised by an individual's ^{internal} thoughts, perceptions and emotions.

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

~~What this means:~~ (3 marks)

~~They are likely experiencing Eustress. Eustress is a positive stress response that motivates and/or enhances functioning. It typically occurs when an individual feels stressed but prepared. In this case, due to their exam preparation, they will likely be fairly stressed because they're prepared, their standards are high, it's challenging, and they're experiencing Eustress.~~

~~Eustress~~

~~Environmental~~

~~Social~~

~~Intrinsic~~

~~Cultural~~

~~Psychological~~

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)

If it was an acute, meaning it was a short term, temporary response to his specific situation.

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

Hugh was in the Alarm stage. This stage is the initial stage of the General Adaptation Syndrome model and lasts up to 48 hours from when the stress is discovered. It is characterized by the production of stress hormones, cortisol, adrenaline and noradrenaline. As well as the activation of the sympathetic nervous system, increased heart rate, breathing rate and impaired cognitive functioning.

Which model??

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)

If Hugh is unable to resolve the stress he will likely transition from the resistance stage of the General Adaptation Syndrome model to the exhaustion stage. Short term effects may include a decreased immune system, ^{impaired cognitive abilities} decreased energy and decreased responses of stress hormones, cortisol, adrenaline and noradrenaline. As well as decreased blood sugar. Long term effects may include death, development of depression and/or anxiety, extended periods of illness. This is because his body would have exhausted his resources of natural resources.

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 Holmes and Rahe (1967).

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

Quantitative subjective

HLCV's Rahe tool?

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

One strength is that because the data collected is quantitative it can be easily analyzed and compared. However, because it's quantitative it lacks qualitative information, such as why an individual would have particular coping its emphasis detaillessness.

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

Primary: The evaluation its role is to evaluate the stimulus and identify whether its a threat/challenging or of positive effect. In this case, Hugh evaluated the stimulus of a flat tire and identified it as negative stimulus, a challenge.

Secondary: Its role is to evaluate an individual's available resources and coping options. Hugh recognised that there was a repair shop close by, and engaged in problem-focused coping by getting the wheel fixed.

- g) Explain the method of coping Hugh is using in the scenario. (3 marks)

Hugh used problem-focused coping. Problem focused coping focuses on using an individual's resources to fix the cause of the stress. This is typically enacted, when an individual feels they have the resources to achieve the solution. In this case, jet was Hugh's likely action to fix the flat tire.

W
X
Y

Section Two: Extended Response

(16 Marks)

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

Suggested working time: 15 minutes.

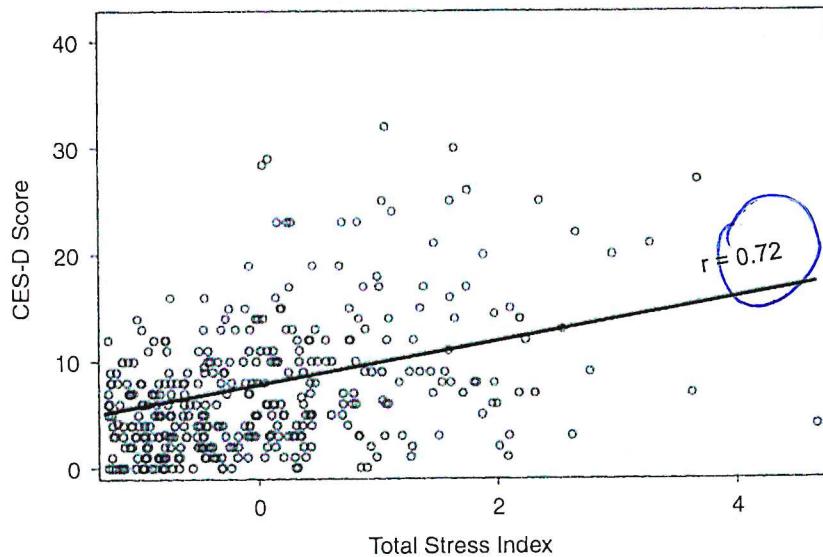
Question three

(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:

- 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)
- 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)
- Based on the data illustrated in Figure 1 on page 24, comment on the relationship between stress and depressive symptoms. (4 marks)
- Describe how psychological stress arises according to Lazarus and Folkman (1984) (2 marks)

Diagram illustrating the marking scheme for the questions:

The diagram shows a large bracket spanning all four questions, labeled "2m". Above the first question, there is a handwritten note "Outline what stress is according to Lazarus and Folkman (1984) and identify two types of stressors that the miner's experience in their work." To the right of this note, another handwritten note says "Trans action model" with an arrow pointing towards the question. Below the second question, there is a handwritten note "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." To the right of this note, another handwritten note says "more ethical see" with an arrow pointing towards the question. Below the third question, there is a handwritten note "Based on the data illustrated in Figure 1 on page 24, comment on the relationship between stress and depressive symptoms." To the right of this note, another handwritten note says "L2m" with an arrow pointing towards the question. Below the fourth question, there is a handwritten note "Describe how psychological stress arises according to Lazarus and Folkman (1984)" with an arrow pointing towards the question. To the right of this note, another handwritten note says "2m" with an arrow pointing towards the question.

Question number: 3

Stress, according to Lazarus and Folkman (1984) is defined as the individual reaction/response to external factors. Specifically, it is the consequence of the dynamic process by cognitive appraisals and utilization of coping options, deriving from the continuous need to assess a situation.

In this case, two types of stressors mind and ~~experience~~ experience are environmental stressors and social stressors.

2m Ethics committees play a significant role in approving and ensuring safe, ethical, just experiments take place, probably unethical experiments. This occurs because they have the power to prohibit and/or ~~regulate~~ mandate adjustment to investigations before they can go be conducted.

7m Two ethical guidelines that the committee would monitor during this study are ~~the~~ privacy and justice. Privacy refers to an individual's right to have their personal information and identity be protected. Justice refers to ensuring that investigations provide significant benefit to the parties involved in the experiments as well as any other parties involved, preventing exploitation of participants.

Question number: 3

In this case, these two ethical guidelines can be ensured by utilising the gathered research to make and implement improvements to the industry, such as utilising it to assess propensity of the people, specifically by ~~handing~~ ^{handing} the ~~information~~ ^{information} over to a workers union. Additionally, in collecting the data related to names, and storing it carefully and securely, ~~names~~ ^{identities} can be kept private. This could be monitored through the use of checks and balances, as well as assigning someone in charge of each aspect to make sure it occurs.

According to the data displayed in figure 1, there is a significant positive relationship between stress and depressive symptoms in men. This is because the r value, 0.72 indicates a positive relationship of significance as its quite close to 1. Therefore, there is a strong ~~the~~ positive correlation between stress and depressive symptoms.

According to Lazarus and Folkman (1984) psychological stress arises from the dynamic consequences of the dynamic process between the cognitive appraisals and the activation of coping options. Specifically, it arises from the continuous need to assess one's situation.

This means that on average an individual who experiences stress reacts to a stronger stressor, which also depends on increase in depressive symptoms.

Question number: 3

Additionally, the study should ensure they are not exposed to
themselves to an adverse effect such as through unnecessary probing
questions, ensuring they are protected from harm at all
times. This can be ensured by having an individual assigned
to check in with the minors throughout the process.

Protection from harm refers to individual responsibilities
responsibility to ensure participants are neither psychologically
or physically harmed in any way as a result of their
actions.

Question number: _____

END OF TEST