

Please write clearly in block capitals.

Centre number

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Candidate number

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Surname

StemUp Model Solution

Forename(s)

Candidate signature

I declare this is my own work.

A-level PSYCHOLOGY

Paper 2 Psychology in context

Time allowed: 2 hours

Materials

For this paper you may use:

- a calculator.

Instructions

- Use black ink or black ball-point pen.
- Fill in the boxes at the top of this page.
- Answer **all** questions. You must answer the questions in the spaces provided. Do **not** write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s).
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 96.
- Questions should be answered in continuous prose. You will be assessed on your ability to:
 - use good English
 - organise information clearly
 - use specialist vocabulary where appropriate.

For Examiner's Use	
Section	Mark
A	
B	
C	
TOTAL	



Section A**Approaches in psychology**

Answer **all** questions in this section.

0	1
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Describe psychosexual stages as outlined in the psychodynamic approach.

[6 marks]

Freud proposed that personality develops through five psychosexual stages, each defined by the part of the body on which the libido (the pleasure-seeking energy of the id) is focused. At each stage there is an unconscious conflict that must be resolved before the child can move successfully on to the next stage.

In the oral stage (0 to 1 year) pleasure centres on the mouth, and the mother's breast is the object of desire. In the anal stage (1 to 3 years) the focus of pleasure is the anus, and the child gains pleasure from withholding and expelling faeces during toilet training. In the phallic stage (3 to 5 years) the focus is the genitals, and the child experiences the Oedipus complex (boys) or Electra complex (girls), resolved by identifying with the same-sex parent. In the latency stage (6 years to puberty) earlier conflicts are repressed and sexual drives are dormant, so the early years are largely forgotten. In the genital stage (puberty to adulthood) sexual desires become conscious and are directed towards adult relationships. If a conflict is unresolved the child becomes fixated at that stage, which shows in adult personality, for example oral fixation leading to smoking, or anal retentiveness producing a tidy, obsessive personality.



0 2

At a local school, teachers took part in Active Lifestyle Week to encourage students to become more active. The week involved daily staff netball matches during breaktimes and a step count challenge.

Two of the teachers were talking at the end of the week. Miss Honey said, "That was such a great week! I felt proud to win the staff step count challenge and receive the medal in assembly and demonstrate the joy of sport. My students loved watching us compete, I really think it will inspire them to be more active themselves!"

Mrs Wilson replied, "It's alright for you, you're young and the students like you. My students were so embarrassed to see me tripping over in netball. I think I may have put them off sport forever!"

Apart from mediational processes, use your knowledge of social learning theory to explain Miss Honey's and Mrs Wilson's comments.

[6 marks]

Both teachers act as role models for their students: as teachers they have high status in school, so students are likely to observe and imitate their behaviour (modelling). Both comments show that the teachers believe their behaviour will be learned through observational learning.

Miss Honey thinks her students will identify with her because, as Mrs Wilson says, she is "young and the students like you", so students see her as similar and attractive. Students also saw her active behaviour being vicariously reinforced: she won the step count challenge, received a medal in assembly and showed "the joy of sport". Because they saw her being rewarded, they are more likely to imitate her, which is why she believes it "will inspire them to be more active themselves".

Mrs Wilson believes her students are less likely to identify with her, as she
Extra space *sees herself as older and less liked. Her students also saw her "tripping over" in netball and were embarrassed, which acts as vicarious punishment, as the consequence of being active was humiliation. Students therefore expect negative consequences and are unlikely to imitate her, which explains why she feels she "may have put them off sport forever".*

Turn over ►



0 3

Whether or not students learn to be more active could depend on mediational processes.

Explain how mediational processes might be involved in the students becoming more active.

[4 marks]

Attention: students must notice the behaviour, which is likely as netball matches were daily at breaktime and Miss Honey's medal was presented in assembly. Retention: the daily repetition of matches helps students store the behaviour in memory. Reproduction: the step count challenge needs no special equipment or fitness, so students can easily copy it. Motivation: students will only become more active if the expected rewards, such as a medal or "the joy of sport", outweigh costs, such as being embarrassed like Mrs Wilson.

0 4

Discuss self-actualisation **and/or** conditions of worth in explaining human behaviour.

[8 marks]

Rogers argued that everyone has an innate drive to self-actualise. Self-actualisation is the top level of Maslow's hierarchy of needs: achieving psychological growth, fulfilment and our full potential. It is only possible when there is congruence between a person's self-concept and their ideal self. Rogers believed incongruence develops because of conditions of worth: limits that significant others, usually parents, place on their love and positive regard, such as "I will only love you if you get good grades". The child then seeks approval by meeting these conditions rather than being their authentic self, leading to low self-worth and psychological issues. In client-centred therapy the therapist offers unconditional positive regard to dissolve conditions of worth and guide the client towards self-actualisation. One strength is research support. Harter et al. (1996) found that teenagers who felt they had to fulfil conditions to gain their parents' approval often ended up not liking themselves, supporting the claim that conditions of



worth damage self-worth.

A further strength is real-world application. Rogers' ideas led to counselling, which is now widely used in schools and the NHS and is effective for mild anxiety and depression, showing the concepts have practical value.

However, the concepts are difficult to test scientifically. Self-actualisation is vague and subjective, so it cannot be operationalised or falsified, and most humanistic research uses qualitative methods. On the other hand, the Q-sort does give a measure of congruence, and qualitative data gives rich, valid insight into personal experience.

Finally, the concepts may be culturally biased. Self-actualisation reflects individualist values of personal growth, whereas in collectivist cultures fulfilment may come from meeting the needs of the group, so the theory may not generalise. It also cannot easily explain self-destructive behaviour, which suggests it oversimplifies human behaviour.

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Section B

Biopsychology

Answer **all** questions in this section.Only **one** answer per question is allowed.

For each question completely fill in the circle alongside the appropriate answer.

CORRECT METHOD



WRONG METHODS

If you want to change your answer you must cross out your original answer as shown. If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown. **0 5** Which of the following neurons carries electrical impulses towards the brain?Shade **one** box only.

[1 mark]

A Interneuron

☐

B Motor neuron

☐

C Relay neuron

☐

D Sensory neuron

☒**0 6** Which **one** of the following is **not** a way of studying the brain?Shade **one** box only.

[1 mark]

A Electrocardiogram (ECG)

☒

B Electroencephalogram (EEG)

☐

C Event-related potentials (ERPs)

☐

D Functional magnetic resonance imaging (fMRI)

☐

Turn over ►



0 7

Describe the divisions of the nervous system.

[6 marks]

The nervous system is divided into the central nervous system (CNS) and the peripheral nervous system. The CNS is made up of the brain and spinal cord. The brain is the centre of conscious awareness and decision making, and the spinal cord relays information between the brain and the rest of the body and controls simple reflexes.

The peripheral nervous system carries messages to and from the CNS via millions of neurons. It is divided into the somatic nervous system and the autonomic nervous system (ANS). The somatic nervous system contains sensory neurons, which carry information from receptors to the CNS, and motor neurons, which carry information from the CNS to skeletal muscles. It controls voluntary movement and is involved in reflex arcs.

The ANS controls involuntary, unconscious functions of vital organs, such as heart rate, breathing and digestion. It has two divisions. The sympathetic nervous system prepares the body for fight or flight in stressful situations, for example increasing heart rate and dilating the pupils. The parasympathetic nervous system returns the body to its resting state, providing "rest and digest" functions such as slowing heart rate and stimulating digestion.



0 8

Discuss localisation of function in the brain.

[16 marks]

You may use this space to plan your answer.

Localisation of function is the idea that specific areas of the brain are responsible for specific behaviours and processes. This view developed in the 19th century, partly from phrenology, and replaced the holistic theory that all parts of the brain work together equally. The brain is divided into two hemispheres and shows contralateral organisation, so the left hemisphere controls the right side of the body and vice versa. Some functions are lateralised, for example language is usually in the left hemisphere. The motor area, at the back of the frontal lobe in both hemispheres, controls voluntary movement. The somatosensory area, in the parietal lobe just behind the motor area, processes sensory information from the skin such as touch, pain and temperature. The visual area in the occipital lobe receives information from the eyes via the optic nerve, with each visual cortex processing the opposite visual field. The auditory area in the temporal lobe analyses speech-based information. Broca's area, in the left frontal lobe, is responsible for speech production, and Wernicke's area, in the left temporal lobe, is responsible for language comprehension. Damage to these areas causes Broca's aphasia (slow, effortful speech) and Wernicke's aphasia (fluent but meaningless speech).

Turn over ►

Strong support comes from case studies of brain damage. Broca's patient "Tan" (Leborgne) could only say one word, and after his death Broca found a lesion in the left frontal lobe, suggesting this area is specialised for speech production. Similarly, Phineas Gage's personality changed dramatically after an iron rod damaged his left frontal lobe, suggesting this area regulates mood and behaviour. Brain scanning gives more objective evidence: Petersen et al. (1988) used PET scans to show that Wernicke's area was active during a listening task and Broca's area during a reading task. However, case studies involve unique individuals with brain damage, so it is difficult to generalise from them to the wider population. Also, Dronkers et al. (2007) re-examined Tan's preserved brain using MRI and found that the damage extended to other areas, so speech production may not depend on Broca's area alone.

A further challenge comes from Lashley's (1950) equipotentiality theory. He removed areas of the cortex in rats learning a maze and found that no single area was more important than another for learning, suggesting that higher cognitive functions are distributed holistically. However, findings from rats may not generalise to complex human cognition.

Brain plasticity also challenges strict localisation. The case of EB, who had his left hemisphere removed as a young child, showed that the right hemisphere took over language functions, so functions can be relocated after damage rather than being fixed to one area.

Localisation can also be seen as reductionist, because complex behaviours such as language may depend on how brain areas communicate within networks, rather than on single regions working alone.

Finally, there are individual and gender differences. Harasty et al. (1997) found that women have proportionally larger Broca's and Wernicke's areas



than men, so maps based mainly on male brains show beta bias. Language is also less often lateralised to the left hemisphere in left-handed people. Universal maps of localisation may therefore be oversimplified.

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[illegible]

Section C

Research methods

Answer **all** questions in this section.

A controlled observation was designed to compare the social behaviours of pre-school children of working parents and pre-school children of stay-at-home parents. The sample consisted of 100 children aged three, who were observed separately. Half of the children had working parents and the other half had stay-at-home parents.

The observation took place in a room which looked like a nursery, with a variety of toys available. In the room, there were four children and one supervising adult. Their behaviour was not recorded.

Each child participant was brought into the room and settled by their parent. The parent then left to sit outside. Each child participant's behaviour was observed covertly for five minutes while they played in the room.

The observation was conducted in a controlled environment and a standardised script was used when the children and their parents arrived.

0 9

Explain why the researcher used a controlled observation **and** a standardised script in this study.

[4 marks]

A controlled observation lets the researcher control extraneous variables, such as the toys available, the room and the number of children and adults present, so any difference in social behaviour is more likely to be caused by whether the parents work or stay at home, increasing validity. A standardised script ensures every child and parent gets the same greeting. Otherwise the welcome might vary, for example friendlier vocabulary with some children making them less anxious and more sociable, biasing the results.

1 0

Identify **one** limitation of controlled observations.

[1 mark]

They lack ecological validity, as the artificial nursery setting may produce less natural social behaviour than in everyday life.

Turn over ►



The researcher used two trained observers to record the social behaviours of each child during the observation.

1 1

Give **two** behavioural categories that the observers could have used in the observation to assess the pre-school children's social behaviour. Explain why your chosen categories are appropriate.

[4 marks]

Category 1: child shares a toy with another child.

Category 2: child talks to another child.

These categories are appropriate because they are clearly social, as each involves the child interacting with another person, so they measure the target behaviour. They are also observable and objective, so the observers do not have to interpret the child's feelings, and they are clearly defined and do not overlap, so each behaviour fits only one category, improving reliability.

1 2

Describe how the observers could use time sampling to record the social behaviour of each child during the five-minute period.

[4 marks]

The observers would divide the five-minute observation into set intervals, for example every 20 seconds, giving 15 recording points per child, with a signal such as a beep marking each interval. At each interval the observers look at the child and tick every category on the behavioural checklist shown at that moment, for example if the child is smiling and chatting to another child they tick both "smiles at another child" and "talks to another child".

Behaviour between the sampling points, such as sharing a toy just after an interval, is ignored and not recorded.



1 3Explain **one** strength and **one** limitation of using time sampling for this observation.**[4 marks]**

Strength: with four children playing together, many social behaviours occur continuously, so recording only at set intervals is more manageable than trying to record every behaviour, and suits ongoing behaviours such as conversations or playing together.

Limitation: the data may not be representative, as behaviour between intervals is missed. For example, a child may be playing alone at the sampling point but share toys or talk to another child straight afterwards, so their social behaviour score is underestimated.

1 4

Explain how the reliability of the controlled observation could be assessed through inter-observer reliability.

[4 marks]

The two trained observers would first discuss and agree on the behavioural categories and how each social behaviour should be interpreted, and practise using them. They would then observe the same child at the same time (or watch the same video of each five-minute session) and record their tallies independently, without conferring. The two observers' tally charts would then be compared by correlating their scores for each child. A correlation of +0.8 or above would indicate good inter-observer reliability.

Turn over for the next question**Turn over ►**

The data from the observation was summarised by converting the number of agreed observations into a total social behaviour score for each child.

The researcher then conducted a statistical test to identify whether there was a significant difference between the social behaviour scores for the children of stay-at-home parents and those of working parents.

1	5
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Identify an appropriate statistical test that the researcher could use to analyse the social behaviour scores in this study. Explain **three** reasons for your choice in the context of this study.

[7 marks]

The Mann-Whitney U test.

Firstly, the researcher is testing for a difference, not a correlation or an association, as they are comparing the social behaviour scores of children of working parents with the scores of children of stay-at-home parents.

Secondly, the study uses an independent groups design, because each child can only be in one group: they either have working parents or stay-at-home parents. Different children provide the data in each condition, so the data is unrelated.

Thirdly, the data is ordinal. The total social behaviour score is created by adding up agreed observations of categories such as smiling or sharing, and these behaviours are not of equal value, so the intervals between scores are not fixed or equal. The scores can therefore only be ranked, so a non-parametric test is needed.

Extra space _____



1 6Explain **one** reason why collecting quantitative data could reduce the validity of this study.**[2 marks]**

Social behaviours are complex and depend on context, so turning them into a tally score loses detail. For example, a friendly smile and a sarcastic smile are counted the same, so the score may not truly measure sociability.

The findings of this study might have implications for the economy.

1 7Explain **one or more** possible implications of this study for the economy.**[3 marks]**

If children of stay-at-home parents were more sociable, parents might delay returning to work until their child starts school, reducing the workforce and tax income and harming the economy. If children of working parents were more sociable, parents may return to work earlier, boosting the economy, although more childcare would be needed, creating jobs for nursery staff.

This study was written up as a scientific report.

1 8

Describe features of the abstract section in a scientific report.

[3 marks]

The abstract is the first section of a scientific report. It is a brief summary, usually about 150 to 250 words, giving an overview of the aims and hypotheses, method, results and conclusions of the study. It lets readers quickly decide whether the full report is relevant to them.

Turn over for the next question

Turn over ►



A new TV programme has been developed to increase positive social behaviours in pre-school children.

There is a proposal to carry out an experiment to compare the effects of the new TV programme and an existing TV programme, on positive social behaviours in pre-school children.

A sample of 500 pre-school children and their parents is available for the experiment. The parents have given consent for their children to take part in this experiment.

The experiment will take place over an 8-week period. Data on the children's social behaviours will be gathered from the parents using a self-report method.

1 9

Design the experiment to investigate whether watching the new TV programme leads to an increase in positive social behaviours in the children, compared with watching the existing TV programme.

In your answer you will gain credit for providing appropriate details of the following:

- the type of experimental design, with justification
- a self-report method of data collection, with justification
- how to control **one** extraneous variable, with justification as to why this would need to be controlled.

[12 marks]

You may use this space to plan your answer.

I would use an independent groups design. The 500 children would be randomly allocated, for example by drawing names from a hat, so that 250 watch the new TV programme and 250 watch the existing programme. This design is appropriate because repeated measures would cause order effects: positive social behaviour learned from the first programme would carry over into the second condition, and doing both conditions would double the 8-week period. Random allocation reduces the risk of participant variables,



such as the children's existing sociability, being unevenly spread between the groups.

Each child would watch their allocated programme at home for 30 minutes every day for the 8 weeks.

Data would be collected using a questionnaire completed by the parents at the start and end of the 8 weeks, so the change in behaviour can be measured. It would be sent to parents' mobile phones, which is quick and cheap for 500 families and is likely to give a high response rate. It would use closed questions with rating scales, for example "How often does your child share toys with other children? 1 (never) to 5 (very often)", covering sharing, helping, taking turns and comforting others. This produces quantitative data, so a total positive social behaviour score can be calculated for each child and the improvement in the two groups compared using a statistical test. Questions would be worded neutrally to avoid leading questions, and responses would be anonymous and confidential, reducing social desirability bias, as parents might otherwise exaggerate how well behaved their child is. Parents would not be told which programme is the new one, so their expectations do not bias their ratings.

One extraneous variable to control is the amount of other TV the children watch. Parents would be asked to let their child watch only the allocated programme and no other children's programmes during the 8 weeks, and to keep a viewing diary to check this. This needs to be controlled because other programmes may also contain positive or aggressive social models, so any change in social behaviour could be caused by these programmes rather than the new programme, which would reduce the internal validity of the experiment. Viewing conditions would also be standardised, for example watching at the same time of day without distractions.

Turn over ►



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48

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