Cambridge Assessment International Education

Cambridge International AS & A Level

PSYCHOLOGY **9990/41**

Paper 4 Specialist Options: Application **May/June 2020**

1 hour 30 minutes

2300508771

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 Newspaper headline: Treatment for schizophrenia is successful.
Sensky et al. (2000) conducted a longitudinal study and found that cognitive-behavioural therapy was effective. It treated both negative and positive symptoms in patients that were resistant to drug treatments for schizophrenia.

(a) Explain what is meant by the term 'baseline' when gathering data. [2]

(b) Suggest **two** weaknesses of the longitudinal method in the study by Sensky et al. (2000). [4]

(c) A randomised controlled design was used by Sensky et al.

(i) Identify the **two** therapies that this design compared. [2]

(ii) Suggest why a randomised controlled design was used. [2]

(d) Discuss the strengths and weaknesses of cognitive-behavioural therapy as an alternative to drug treatments for schizophrenia. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 *'There has been little attempt to understand the influence on children of branded products that appear in television programs and movies. A study exposed children of two different age groups (6–7 and 11–12) in classrooms to a brief film clip. They were then individually asked to demonstrate their witness skills by describing in as much detail as possible what they had seen.'*
Extract from the abstract from Auty and Lewis (2004)

(a) Explain what is meant by 'brand recognition'. [2]

(b) Give the **two** conclusions from the study by Auty and Lewis (2004). [4]

(c) **(i)** Give **two** examples of what Auty and Lewis did to ensure that the ethical guideline of informed consent was followed. [2]

(ii) Suggest **one** way in which this study could be considered to be unethical. [2]

(d) Discuss the advantages and disadvantages of using interviews to investigate brand recognition in children. You should include a conclusion in your answer. [5]

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Psychology and health

3 The Wong-Baker faces pain rating scale for children.

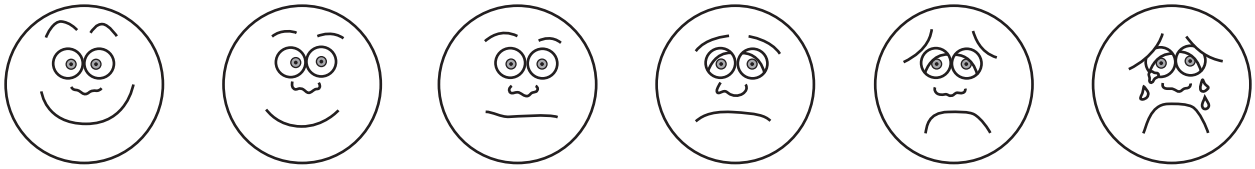


Fig. 3.1

(a) Explain how the Wong-Baker scale is used to measure pain in children. [2]

(b) **(i)** Explain how the test-retest reliability of this scale could be tested. [2]

(ii) Suggest **one** reason why this scale might be less useful with older children than with younger children. [2]

(c) Suggest **two** ways in which pain can be measured in children without using a pain rating scale. [4]

(d) Discuss the advantages and disadvantages of having pain measures specifically for use with children. You should include a conclusion in your answer. [5]

Psychology and organisations

4 Wedley and Field (1984) proposed that the decision-making process of any group can be improved using a pre-decision support system. Their model of the pre-decision process begins with the manager answering situational questions. Examples of these questions and how they could be answered appear in Table 4.1.

Table 4.1

Question number	Questions	Your answers
1	Is quality required?	Yes ~~No~~
2	Have you sufficient information?	~~Yes~~ No
3	Is the problem structured?	~~Yes~~ No
4	Is acceptance important?	Yes ~~No~~
5	Would your autocratic decision be accepted?	Yes ~~No~~

(a) Explain what is meant by the term ‘pre-decision support system’. [2]

(b) **(i)** Identify the type of questions used to gather the data in Table 4.1. [1]

(ii) Identify the type of data gathered in Table 4.1. [1]

(iii) Suggest **one** disadvantage of this type of data, using an example from Table 4.1. [2]

(c) Suggest **two** ways in which any decision support system can improve managerial effectiveness. [4]

(d) Discuss the advantages and disadvantages of gathering data from managers and workers about decision-making in their organisation. You should include a conclusion in your answer. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design a study to investigate which type of phobia the general public think is the **most** common. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a study using a questionnaire to investigate whether people prefer a customer-focused approach or a product-focused approach when buying a new car. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and health

7 **(a)** Design a study using an interview to investigate what the students in a school understand by the terms ‘acute pain’ and ‘chronic pain’. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study using observations to investigate which followership type is the **most** common in an organisation producing toys. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Symptom assessment of schizophrenia using virtual reality will one day remove the need for a doctor.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'The theory of planned behaviour: if you plan to buy and you intend to buy, you definitely will buy.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'Health promotion strategies developed in one country, such as those in the five-city project (Farquhar et al., 1985), can never generalise to other countries.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'Errors in group decision-making are always due to the cognitive limitations of an individual rather than to being part of a groupthink situation.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/41

Section A: Psychology and abnormality

1(a) A baseline is a measure of the participants' symptoms or behaviour taken at the start, before any treatment is given. Later measurements (e.g. after nine months of CBT) can be compared with this baseline, so changes can be tracked to show whether the intervention has been effective.

1(b) One weakness is participant attrition. Sensky et al. followed patients over nine months of therapy and a further nine months of follow-up, so some patients may drop out, e.g. because their symptoms worsen or they move away. The final sample may then be biased towards those who responded well, which exaggerates the effectiveness of CBT.

A second weakness is that over such a long time extraneous variables cannot be controlled. Patients may not follow the treatment programme exactly, may change or take other medication, or may experience life events or other illnesses, so it is hard to be sure that any change in their schizophrenic symptoms was caused by the CBT itself.

1(c)(i) Manualised cognitive-behavioural therapy developed specifically for schizophrenia, compared with a non-specific befriending intervention used as a control.

1(c)(ii) In a randomised controlled design the researchers do not choose who goes into each condition; patients are allocated randomly, by chance. This removes

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researcher bias and spreads participant variables (e.g. severity of symptoms) evenly across the CBT and befriending groups, so any difference in outcome can be attributed to the therapy. The befriending group also acts as a control for the attention patients receive from a therapist.

1(d) One strength of CBT is that no drugs are taken, so the patient avoids side effects such as weight gain or tardive dyskinesia, and cannot become dependent on medication. This is important for the drug-resistant patients in Sensky et al.'s study, for whom drugs had not worked anyway.

A second strength is that the patient plays an active role in their own treatment, guided by a therapist who helps them challenge beliefs about voices or delusions. Sensky et al. found that the improvement after CBT was maintained at the nine-month follow-up, suggesting the patient learns lasting coping skills.

However, one weakness is that CBT needs much more effort from the patient than passively swallowing a pill, and patients with severe negative symptoms such as avolition, or with disorganised thinking, may not be able to engage with it.

A second weakness is that the cause of schizophrenia may be biochemical, e.g. excess dopamine, so a drug treatment targets the cause directly, whereas CBT only helps the patient cope. CBT also needs a trained therapist for many sessions, which costs more and takes more time than taking medication.

Conclusion: CBT should not replace drugs for every patient, because it depends on the patient being able and willing to engage, but for drug-resistant patients it is a valuable alternative, and for most patients the best outcome is likely to come from using it alongside medication.

Psychology and consumer behaviour

2(a) Brand recognition is the consumer's ability to identify a particular brand or firm

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	from its distinctive cues, such as its logo, motto, colours or packaging, e.g. recognising Coca-Cola from its red and white logo without seeing the name.
2(b)	First, it is not simply exposure to the film clip that affects choice. The interviews suggested that it was previous exposure to the brand together with a reminder in the form of recent exposure (seeing Pepsi in the Home Alone clip) that made children more likely to choose that brand. Second, age, and so processing skill, does not appear to be a mediating factor in choice. Both the 6 to 7 and the 11 to 12 year olds were affected, because implicit memory (mere exposure) seems to be more important than explicit recall of the brand.
2(c)(i)	Prior written permission to offer the children a soft drink during a brief interview was obtained from the parents. Parents and teachers were told that the children would be asked questions about their observations after they had viewed a film clip.
2(c)(ii)	The children may not have been properly debriefed. Each interview took about five minutes, after which the child was returned to the classroom and the next one called out, so there is no evidence the children were told the true purpose of the study (that it was about product placement, not witness skills).
2(d)	One advantage is that an interview allows children to give their own view in full detail, explaining what they saw and why they chose a drink, which a questionnaire could not capture, especially for young children who cannot read or write well. A second advantage is that the interview can be done individually, as in Auty and Lewis, so the child is not embarrassed or influenced by classmates, and it can be

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	recorded as evidence of exactly what was said.
	One disadvantage is that children may be reluctant to be interviewed by a strange adult but go along with it because they think it is what the adult wants, so their answers may reflect demand characteristics rather than genuine brand recognition.
	A second disadvantage is that children may misunderstand the questions, especially the younger 6 to 7 year olds, or may hide or change information, which lowers the validity of the data.
	Conclusion: interviews are probably the most suitable method with children, provided the questions are simple and structured, because they need no reading or writing skills, but they should be combined with a behavioural measure such as which drink the child actually chooses to check validity.
	Psychology and health
3(a)	The scale is shown to the child, who is asked to point to the face that best reflects how much pain they feel. The faces range from a happy face (no hurt, scored 0) to a crying face (hurts worst, scored 5), so the chosen face gives a number for the child's pain.
3(b)(i)	The same children would rate the same painful events on the scale again after a period of time, e.g. the day after the first test (2 to 4 days later in some cases, as in Wong and Baker), and the two sets of ratings would be correlated. A high positive correlation shows good test-retest reliability.
3(b)(ii)	Older children may find the cartoon faces childish and lose interest, so they are less motivated to rate their pain accurately than younger children who enjoy the task. Wong and Baker found reliability decreased at around age 12, so the scale is less useful for older children.

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3(c)	One way is an observational (behavioural) measure. A nurse or parent observes the child for signs of pain such as crying, facial grimacing, guarding the painful area or distorted walking. This is useful for very young children who cannot describe their pain. A second way is the McGill Pain Questionnaire (Melzack, 1975). The child could mark on a drawing of the body where the pain is, and choose words describing what the pain feels like (e.g. throbbing, stabbing) and how it changes with time. A clinical interview, in which the practitioner asks the child about the pain, could also be used.
3(d)	One advantage is that children may be too young to explain their pain or take part in an adult clinical interview, so a simple measure like choosing a face lets them express their pain without needing a large vocabulary. A second advantage is that children may be nervous of the practitioner or the procedure. A child-friendly task such as a row of cartoon faces or a colouring task may put them at ease, so they give a more honest rating. One disadvantage is validity: the smiley faces may not translate into the actual amount or type of pain the child is feeling, e.g. a child may choose the crying face because they are scared rather than in pain. A second disadvantage is that such measures may not be reliable or may be tested in artificial conditions. In Wong and Baker's study the children were not in pain at the time, and reliability fell with age, so results may differ when children are actually in pain. Conclusion: child-specific measures are necessary because adult measures rely on language children do not have, but they should be matched to the child's age and combined with observation by parents or nurses so that the rating can be checked.

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	Psychology and organisations
4(a)	A decision support system is a (usually computerised) information system that helps managers make better decisions by organising and analysing information. A pre-decision support system, as proposed by Wedley and Field, helps before the decision is made: the manager answers situational questions (such as those in Table 4.1) to identify the best decision-making approach for less structured problems that need management judgement.
4(b)(i)	Closed (yes/no) questions.
4(b)(ii)	Quantitative data, specifically nominal (categorical) data, as each answer is put in a category.
4(b)(iii)	Closed yes/no answers give no detail or reasons. For example, for question 2 "Have you sufficient information?" the manager answered No, but this does not show what information is missing or how much more is needed, so the data may lack validity and depth.
4(c)	First, it can improve personal efficiency: the system allows a manager to perform a task in a different way that uses less time or less effort, e.g. a computer analyses sales data instantly instead of the manager working through it by hand. Second, it can expedite problem solving by giving faster turnaround, new insights, better consistency and greater accuracy, e.g. answering the situational questions leads the manager to the same suitable approach every time a similar problem arises. It can also help communication across the organisation, as everyone can see the same information.

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4(d)	One advantage is that workers may want to please management and show organisational commitment (Mowday et al.), so they are willing to take part fully and give detailed information about how decisions are made. A second advantage is that managers gathering data from their own workers know them and the organisation well, so they can ask relevant questions and understand the answers in context. One disadvantage is that workers may respond to demand characteristics or want to impress, as in the Hawthorne effect, so they say what they think managers want to hear rather than the truth about decision-making. A second disadvantage is that managers may have a hidden agenda, e.g. wanting to show their own decisions are good, so they may report information selectively; workers with low commitment may even give false answers to go against management. Conclusion: gathering data from managers and workers is essential, because they are the people who make and experience the decisions, but it is more valid if the data are collected anonymously by an independent researcher rather than by the organisation itself.
	Section B: Psychology and abnormality
5(a)	Method: a questionnaire survey of the general public. Aim: to find which type of phobia people believe is the most common. Sample: 200 adults aged 18 and over, chosen by opportunity sampling in a busy city shopping centre on different days and times so that a range of ages, genders and backgrounds are included. Equal numbers of males and females will be recruited. Questionnaire: section 1 collects demographic data (age, gender, whether they have a phobia themselves). Section 2 has closed questions. Q1: "Which one of these

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	phobias do you think is the most common?" with a list: agoraphobia, social phobia, animal phobia (e.g. dogs, spiders), blood-injection-injury phobia, button phobia, heights, other. Q2: "Rank these phobias from 1 (most common) to 7 (least common)." Section 3 has an open question: "Why do you think this phobia is the most common?"
	Procedure: the researcher approaches people, explains the study, and gives them the questionnaire on a clipboard to complete there and then (about 5 minutes). Terms such as agoraphobia are explained in a short definition beside each option, so all participants understand them in the same way.
	Data and analysis: quantitative data from Q1 are shown as frequencies and percentages for each phobia in a bar chart; the mode identifies the phobia thought most common. Mean ranks from Q2 are compared. Qualitative answers are analysed by thematic analysis.
	Reliability and validity: the questionnaire is standardised, so every person gets the same questions; a test-retest check with 20 participants a week later checks reliability. Answers are anonymous to reduce social desirability.
	Ethics: informed consent is obtained, the right to withdraw is explained, no names are recorded, and a debrief sheet gives information about phobias and where to get help in case the topic causes distress.
5(b)	Psychological evidence: a phobia is an anxiety disorder involving an intense, irrational fear of an object or situation, leading to avoidance. DSM classifies agoraphobia and specific phobias, and the syllabus studies show the range of types: DiNardo et al. (1988) studied people with dog phobia, Saavedra and Silverman (2002) a boy with button phobia, Watson and Rayner (1920) conditioned Little Albert to fear a white rat, and Freud (1909) described Little Hans's fear of horses. I therefore listed agoraphobia, animal, blood and button phobias as options. Because the study measures what the public think, not actual

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prevalence, I included agoraphobia with a definition, as many people may not know the term.

Methodological evidence: a questionnaire was chosen because it can collect data quickly from a large sample, which is needed to generalise to the general public. Closed questions give quantitative data that can be compared easily and converted into percentages, so the most common choice can be identified objectively. The open question adds qualitative data, giving the reasons behind choices and increasing validity. Opportunity sampling in a shopping centre is practical and reaches a varied population, although it may not be fully representative. Standardised instructions and definitions improve reliability, and anonymity reduces social desirability bias, which might occur if people felt embarrassed to say they have a phobia. Ethical guidelines were followed because the topic could cause anxiety for people with phobias.

Psychology and consumer behaviour

6(a) Method: a questionnaire. Aim: to find whether car buyers prefer a customer-focused or a product-focused sales approach.

Sample: 120 people who have bought a new car in the last 12 months, recruited by asking five car dealerships to post the questionnaire to recent customers (a sample of customers from each, so different brands and price ranges are covered). It could also be completed online via a link.

Questionnaire: section 1 collects demographic data (age, gender, car bought). Section 2 describes two short scenarios. In scenario A (product-focused) the salesperson explains the car's features, engine size, safety specification and fuel economy in detail. In scenario B (customer-focused) the salesperson asks about the buyer's needs, family, budget and lifestyle and then suggests a car to fit them.

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	Questions: "I would prefer to be sold a car in the way shown in scenario A" rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree), and the same for scenario B. A closed question: "Which approach would you prefer? A / B." An open question: "Explain why you prefer this approach." Analysis: quantitative data: mean ratings for A and B are compared, and the percentage choosing each approach is calculated and shown in a bar chart. Qualitative data from the open question are analysed into themes, e.g. "feels personal", "wanted facts". Controls: the two scenarios are of equal length; the order is counterbalanced so half the participants read A first and half B first, to avoid order effects. Ethics: a cover letter gives informed consent information and the right to withdraw; responses are anonymous and returned in a sealed envelope; a debrief explains the aim.
6(b)	Psychological evidence: sales techniques can be customer-focused, competitor-focused or product-focused. In a product-focused approach the emphasis is on the product: its special features and design specifications, and educating the customer about it, so the salesperson needs excellent product knowledge. In a customer-focused approach each customer is seen as unique; the seller asks about the customer's needs, wants and desires and fits the product to the customer. My two scenarios were based directly on these definitions, so each participant compares exactly the two techniques the question asks about. A car is a high-involvement purchase, so buyers are likely to have clear views on how they were sold to. Methodological evidence: a questionnaire was named in the question and allows a large sample of genuine recent buyers to be reached cheaply by post or online, improving generalisability. The Likert scale gives quantitative data so the strength of preference for each approach can be compared using means. The forced-choice

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question gives a clear answer to the aim, and the open question gives qualitative data to explain the reasons, increasing validity. Scenarios standardise what participants are judging, which increases reliability. Counterbalancing controls order effects. Anonymity reduces social desirability, as people will not feel pressure to praise a particular dealership.

Psychology and health

7(a) Method: semi-structured interview. Aim: to find what students in a school understand by acute and chronic pain.

Sample: 40 students aged 11 to 18, chosen by stratified sampling: 8 from each of five year groups, half male and half female, selected randomly from the school register in each stratum. This allows age differences to be compared.

Setting: a quiet room in the school, one student at a time, lasting about 15 minutes. The interviewer is a trained researcher, not a teacher, so students do not feel they are being tested.

Questions: fixed questions asked to everyone, plus follow-up questions where needed. Q1: "What does the word pain mean to you?" Q2: "Have you heard the term acute pain? What do you think it means?" Q3: "What do you think chronic pain means?" Q4: "Can you give an example of each?" Q5 (closed): "A broken arm that hurts for a week is: acute / chronic / don't know." Q6 (closed): "Back pain lasting six months is: acute / chronic / don't know."

Scoring: the answers to the open questions are recorded (with consent) and transcribed. Each definition is scored 0 (incorrect), 1 (partly correct) or 2 (fully correct, e.g. mentions duration). Two researchers score the answers independently to check inter-rater reliability. Closed answers give the percentage correct.

Analysis: mean understanding scores are compared between year groups; qualitative answers are analysed into themes, e.g. "acute means very strong", a common

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	misunderstanding. Ethics: consent from the head teacher, parents and the students; right to withdraw; confidentiality; students are debriefed with correct definitions so they do not feel they failed.
7(b)	Psychological evidence: pain can be defined as acute or chronic. Acute pain is short-term and temporary, lasting less than about three months, and usually has a clear cause, e.g. a finger trapped in a door; it acts as a warning and goes when the injury heals. Chronic pain is long-term, lasting three months or more, e.g. arthritis or back pain, and may continue after healing. My scenario questions (broken arm for a week, back pain for six months) were based on these definitions, so students' understanding can be scored against the correct distinction of duration rather than intensity. Students may confuse "acute" with "severe", which the open questions can reveal. Methodological evidence: an interview was named and suits this aim, because understanding is best explored by letting students explain in their own words; a semi-structured format keeps core questions standardised for reliability while allowing follow-up questions for depth and validity. The mixture of open and closed questions gives both qualitative and quantitative data. Stratified sampling makes the sample representative of all year groups. Individual interviews in a quiet room avoid conformity to friends' answers. Using two scorers allows inter-rater reliability to be checked. Because participants are under 16, parental consent is needed.
	Psychology and organisations
8(a)	Method: a covert, non-participant naturalistic observation in a toy factory. Aim: to find which of Kelley's followership types is the most common. Sample and setting: 50 production and office workers in one toy-producing

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organisation, chosen by opportunity sampling from those working on the days of observation. Two trained observers are placed in the workplace, presented as staff carrying out a routine efficiency review, so behaviour remains natural (with the management's agreement).

Behavioural categories (response categories) based on Kelley (1988): exemplary (suggests improvements and carries them out, works without supervision); conformist (agrees with and does whatever the supervisor says, positive but rarely questions); passive (waits to be told what to do, does the minimum, needs constant direction); alienated (criticises decisions, e.g. complains about a new toy design, but does not help to improve things); pragmatist (changes behaviour to suit the situation, e.g. works hard only when the manager is present).

Sampling frame: time sampling. Each worker is observed for one minute every 15 minutes across a full working week, and each observer ticks the category that best describes the behaviour shown in a tally chart.

Reliability: both observers record the same workers independently; their tallies are correlated to check inter-rater reliability, after a pilot study to train them on the categories.

Analysis: each worker is assigned the followership type they showed most often; the frequency and percentage of each type are calculated and shown in a bar chart, and the mode is the most common type.

Ethics: as observation is covert, workers are debriefed afterwards, told the purpose, and given the right to withdraw their data; no names are recorded, so data cannot be used against workers.

8(b)

Psychological evidence: Kelley (1988) classified followers on two dimensions: independent, critical thinking versus dependent, uncritical thinking, and active versus passive engagement. This gives five types: exemplary ("star") followers think for themselves, have positive energy and are actively engaged; conformist followers

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("yes people") are active but let the leader think for them; passive followers ("sheep") are low on both and are motivated by the leader rather than themselves; alienated followers think for themselves but are negative and do not contribute to the organisation's direction; pragmatists show a minimal level of both and change to suit the situation. My behavioural categories were operationalised directly from these descriptions so that each observed behaviour could be classified as one of Kelley's types.

Methodological evidence: observation was named in the question; a naturalistic setting gives high ecological validity as workers are in their real jobs. Making it covert avoids the Hawthorne effect, where workers change behaviour because they know they are being watched, which would bias the results towards exemplary behaviour. Clear behavioural categories make the data quantitative and objective, and time sampling makes recording manageable and representative across the day. Two observers allow inter-rater reliability to be checked. Debriefing and confidentiality address the ethical problem of lack of consent.

Section C: Psychology and abnormality

9 Symptom assessment of schizophrenia normally relies on a doctor interviewing the patient, e.g. using DSM or ICD criteria. Freeman et al. (2003) used virtual reality instead: participants entered a virtual library populated by neutral avatars and then reported their thoughts about them. Some people interpreted the neutral avatars as hostile, showing that VR can reveal persecutory (paranoid) thinking.

There is evidence to agree. In VR the patient can show how they actually behave and think in a situation, rather than trying to describe it to a doctor, who otherwise has no idea how the patient behaves in the real world. Because the avatars were programmed to be neutral, any paranoid interpretation must come from the person, so the measure is objective and standardised, giving high

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reliability. Patients may also be more honest: Robinson and West (1992) found patients disclosed more information to a computer than to a doctor in a face-to-face interview, so a computer-based assessment may reveal symptoms a patient would hide. In the future, computers may be programmed to interpret responses and suggest a diagnosis.

However, there are strong reasons to disagree. Freeman et al. used a non-clinical sample, so VR has not been shown to diagnose schizophrenia itself, and VR can only test some symptoms, such as paranoia; it cannot easily assess hallucinations, disorganised speech or negative symptoms. A doctor will always be needed to interpret the behaviour, take a history, rule out other causes such as drug use, and make a diagnosis. A doctor can ask follow-up questions as they arise, whereas VR cannot genuinely interact. Treatment, such as prescribing antipsychotic medication, also requires a doctor. Some patients with paranoid symptoms may find VR frightening, raising ethical issues of harm that need clinical judgement. Experience cannot be fully programmed into a computer.

Conclusion: I largely disagree. VR is a useful, objective tool that can add evidence about how a patient reacts in realistic situations, but it assesses only certain symptoms and cannot diagnose, treat or interact; so it will support rather than remove the need for a doctor.

Psychology and consumer behaviour

10 The theory of planned behaviour (Ajzen, 1991) says behaviour is predicted by intention, and intention is formed by three factors: attitude towards the behaviour (e.g. "buying this phone would be good"), subjective norms (what important others think) and perceived behavioural control (whether the person believes they can do it, e.g. can afford it). Perceived control can also affect behaviour directly.

There is evidence to agree. The model proposes that intentions lead to behaviour

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and it has much supporting evidence in consumer settings: intentions predicted the purchase of a specific brand of grape drink (Bonfield, 1974) and of toothpaste (Wilson et al., 1975). Bagozzi et al. (2000) suggest the model applies across cultures. This means that if a consumer plans and intends to buy, they usually do, which is useful to marketers.

However, the word "definitely" is too strong. What people say they intend and what they do is often different: this is the intention-behaviour gap. A consumer may intend to buy but be prevented by situational factors not in the model, such as the product being out of stock, a price rise or a better offer from a competitor. Perceived behavioural control is only the person's belief, not actual control. There are individual differences, e.g. different shopper types, and impulse buying shows people buy without any plan, while the model assumes rational decision-making. The model may be too general: it was developed for behaviours such as health, and may apply less well to consumer behaviour. Alternative models, such as the black box model and the consumer decision model, include more stages such as information search and evaluation of alternatives. Studies supporting the theory also usually rely on self-report intentions, which may be affected by social desirability.

Conclusion: I disagree with the statement. Planning and intending to buy make a purchase more likely, and the theory predicts behaviour reasonably well for brands like grape drink and toothpaste, but because of the intention-behaviour gap and situational factors, intention never guarantees that a consumer will definitely buy.

Psychology and health

11 The five-city project (Farquhar et al., 1985) was a community health promotion programme in California. Two treatment cities received a multi-media campaign (TV, radio, newspapers, education in schools and workplaces) about reducing

Question number

cardiovascular risk, e.g. smoking, blood pressure and cholesterol, while other cities acted as controls. The treatment cities showed greater reductions in risk factors such as blood pressure and smoking.

There are reasons to agree. The project was designed for the USA, where poor heart health and obesity are major problems; other countries may have different health priorities, such as infectious disease. The USA has many cities of similar size, so treatment and control cities could be matched, which may not be possible elsewhere. It also relied on high exposure to TV and newspapers, which some countries lack. Cultural differences in diet, attitudes to authority and collectivism may mean the same messages are interpreted differently, so the results may be ethnocentric.

However, the word "never" is too strong. All countries need their inhabitants to improve their health to live longer, and the techniques of health promotion, such as providing information and fear arousal (Janis and Feshbach, 1953), are used everywhere. The project measured outcomes physiologically, e.g. blood pressure and cholesterol, which are objective and reliable, so the same measures can be taken on anyone anywhere and the results compared. There is evidence of generalisation: the North Karelia project in Finland also used a community-wide campaign to reduce heart disease risk factors with success, and school-based programmes such as the Food Dudes (Tapper et al., 2003), developed in the UK, have been used in other countries. Strategies can be adapted to local culture, e.g. using local media and language, while keeping the same principles.

Conclusion: I disagree. The exact campaign may not transfer directly, as cultures, media and health problems differ, but the principles of community-wide, multi-media promotion measured with objective physiological measures can generalise to other countries when adapted to local conditions.

Psychology and organisations

Question number	
12	Forsyth (2006) described how groups make errors because of the cognitive limitations of individual members. Sins of commission include belief perseverance (holding on to a belief after it is shown to be false) and sunk cost bias. Sins of omission include ignoring base rates, and sins of imprecision include relying on heuristics such as the availability heuristic. Janis (1971) described groupthink, where a cohesive group strives for agreement so strongly that it fails to consider alternatives, e.g. the Bay of Pigs invasion. There is some support for the statement. Individuals are sometimes limited in their understanding and bring biases such as belief perseverance into the group, so the group decision is only as good as the information processing of its members. Some people are poor at interacting in groups, have personalities that are less suited to group work, or have interpersonal conflicts with other members, which harms the decision. These are individual explanations. However, the word "always" is too strong, because groupthink shows that errors can come from the situation. Groupthink results from the group, not individual decision-making: symptoms such as the illusion of invulnerability, the illusion of unanimity, self-censorship, direct pressure on dissenters and self-appointed mindguards occur because members want to stay cohesive. Individuals may agree with the leader to impress the boss rather than question the decision, and raising questions may be avoided because conflict could harm group cohesiveness. Intelligent, capable individuals made the Bay of Pigs error, so it cannot be blamed only on their cognitive limits. Janis's strategies to avoid groupthink, such as an impartial leader, a devil's advocate and outside experts, change the situation, and they work, which supports a situational cause. This is the individual versus situational debate. Conclusion: I disagree. Individual cognitive limitations do cause some errors, but group factors such as cohesiveness and pressure to conform also cause errors

Question number

through groupthink, and often the two interact, as groupthink stops the group correcting individual biases.

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PSYCHOLOGY **9990/42**

Paper 4 Specialist Options: Application **May/June 2020**

1 hour 30 minutes

3871129979

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 The use of nalmefene, a biochemical treatment, is believed by Grant et al. (2008) to help reduce the urge to gamble. To test its effectiveness, participants were assessed to ensure they were suitable to participate. They were then randomly allocated to either a group receiving nalmefene or to a group receiving a placebo.

(a) Explain what is meant by the term 'placebo'. [2]

(b) Outline **two** testing procedures used to assess participants' gambling severity in the study by Grant et al. (2008). [4]

(c) Give **two** reasons why this assessment excluded some participants from the study. [4]

(d) Discuss the strengths and weaknesses of using biochemicals to treat gambling disorder. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 From the study by Robson et al. (2011) on consumers' responses to table spacing in restaurants:

Comparison of survey items by table spacing: Privacy

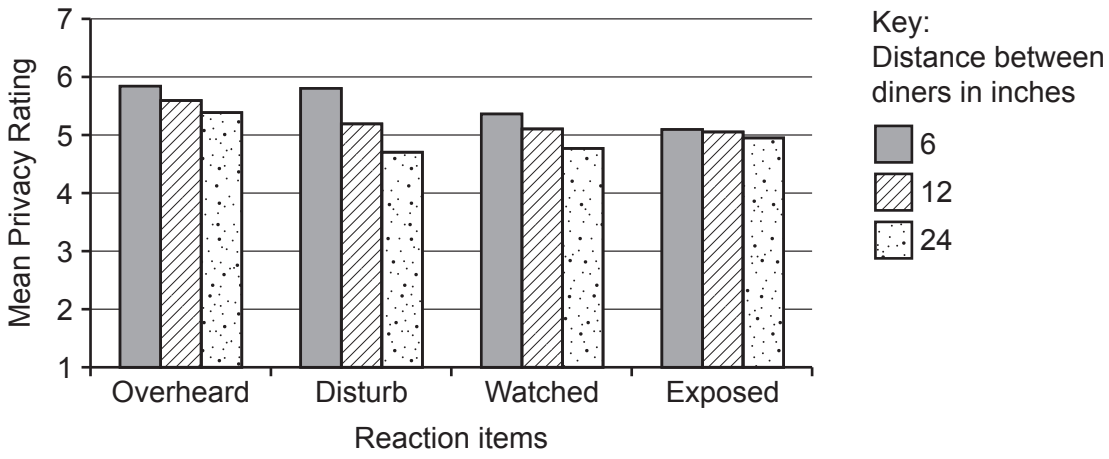


Fig. 2.1

(a) Identify **two** features of the questionnaire used in the study by Robson et al. (2011). [2]

(b) Give **two** findings from the data in Fig. 2.1. [4]

(c) Suggest **two** ways that could be used to collect data about the effect of table spacing in restaurants, other than a questionnaire. [4]

(d) Discuss the advantages and disadvantages of using internet-based questionnaires to gather data about the effect of table spacing in restaurants. You should include a conclusion in your answer. [5]

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Psychology and health

3 Poor adherence in asthma patients has been associated with more wheezing and more frequent need for hospitalisations. Patients with the most severe asthma appear to have worse adherence than other asthma patients. The study by Sherman et al. (2000) was conducted to investigate whether telephoning the patient's pharmacy to obtain a prescription refill history gathers accurate information about medication-taking behaviour.

(a) Explain how the participants were selected for the study by Sherman et al. (2000). [2]

(b) Give **one** strength and **one** weakness of selecting the participants in this way. [4]

(c) **(i)** Suggest **one** way in which data on adherence could be gathered, other than by using pharmacy records. [2]

(ii) Suggest **one** advantage of the way to gather data that you suggested in **(c)(i)**. [2]

(d) Discuss the strengths and weaknesses of using pharmacy records to gather data on adherence to taking medication. You should include a conclusion in your answer. [5]

Psychology and organisations

4 The Minnesota satisfaction questionnaire (MSQ) measures satisfaction with the work environment. The long version takes 15–20 minutes to complete, using 100 satisfaction items. It is easy to read and Weiss et al. (1967) say it is both reliable and valid. It can be completed as a postal questionnaire or in an interview setting.

(a) Explain how Weiss et al. (1967) know the MSQ is reliable. [2]

(b) **(i)** Give **two** MSQ satisfaction items. [2]

(ii) Suggest **one** problem that would arise if the questionnaire took longer than 20 minutes to complete. [2]

(c) Suggest **two** disadvantages of using a five-point scale, using an example from the MSQ. [4]

(d) Discuss the advantages and disadvantages of using postal questionnaires to gather data about work satisfaction. You should include a conclusion in your answer. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design an experiment to investigate the effectiveness of covert sensitisation for treating kleptomania. [10]

(b) Explain the psychological and methodological evidence on which your experiment is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a study to investigate whether males are 'raider' type shoppers and females are 'explorer' type shoppers. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and health

7 **(a)** Design a study to investigate age differences in the disclosure of medical information to a health practitioner. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study to investigate how colour of lighting in a factory affects productivity level. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Telephone-administered cognitive-behavioural therapy (CBT) to treat obsessive-compulsive disorder (OCD) will never be as effective as face-to-face treatment.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'Satisficing is the only model needed to explain consumer decision-making.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'It does not matter whether patients understand the medical terms their doctor uses. In order to get better, they just have to do what their doctor tells them.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'The two-factor theory of job satisfaction is too reductionist to be useful.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/42

Section A: Psychology and abnormality

1(a) A placebo is a substance, such as a sugar pill or saline injection, that has no active therapeutic ingredient. It is given to the control group so they believe they are being treated; any improvement is due to expectation, so it can be compared with the effect of the real drug (nalmefene).

1(b) First, psychiatric comorbidity was assessed using the Structured Clinical Interview for DSM-IV, and only people meeting DSM-IV criteria for pathological gambling were enrolled; a semi-structured, rater-administered questionnaire collected clinical information.

Second, gambling severity was measured with the Yale Brown Obsessive Compulsive Scale Modified for Pathological Gambling (PG-YBOCS). Its first five items form the gambling urge/thought subscale and the final five the gambling behaviour subscale.

1(c) First, people whose gambling was infrequent (less than once a week) and did not meet DSM-IV criteria for pathological gambling were excluded, because they did not have the disorder being treated, so they could not show whether nalmefene reduces urges.

Second, people with a lifetime history of bipolar disorder, schizophrenia or another psychotic disorder, or current substance abuse or dependence, were excluded. These conditions, or medication taken for them, could affect the urge to gamble or

Question number	
	interact with nalmefene, acting as confounding variables or putting the participant at risk.
1(d)	One strength is that biochemicals are easy to take: the gambler simply swallows a pill, so little time or effort is needed compared with weekly therapy sessions, which many people prefer as they can stay passive in their treatment. A second strength is that opioid antagonists such as nalmefene block the production and effects of endorphins and other neurochemicals associated with the arousal and pleasure of gambling, so the urge is reduced at its biological source. Grant et al. found nalmefene reduced gambling urges compared with a placebo. One weakness is that the aim is to treat an addictive behaviour, yet some biochemicals may themselves cause dependence or side effects such as nausea, and patients may not take them as prescribed (non-adherence). A second weakness is that drugs ignore alternative reasons why a person gambles, such as cognitive distortions (e.g. the gambler's fallacy), stress or social factors, so when the drug is stopped, relapse is likely. Conclusion: biochemicals are useful for quickly reducing strong urges, but because they do not address the learned and cognitive causes of gambling, they are best used together with a psychological therapy such as CBT rather than alone.
	Psychology and consumer behaviour
2(a)	It used closed questions with a 7-point rating scale (from strongly disagree to strongly agree). The questions were based on scenarios of eating in a restaurant (romantic, friends and business settings), supported by photographs of tables at different spacings.
2(b)	First, the closest spacing (6 inches) produced the most negative reaction on all

Question number

four items: e.g. for "Overheard" the mean rating was about 5.8 at 6 inches, compared with about 5.6 at 12 inches and 5.4 at 24 inches.
Second, the effect of spacing was largest for "Disturb" and smallest for "Exposed": "Disturb" fell from about 5.8 at 6 inches to about 4.7 at 24 inches, whereas "Exposed" hardly changed, from about 5.1 to about 5.0.

2(c) First, an observation in real restaurants: diners at tables set at 6, 12 or 24 inches apart could be covertly observed, recording behaviours such as how loudly they talk, leaning away from neighbours, and how long they stay. Space invasion should lead to flight behaviour, so shorter stays would show discomfort at close spacing.
Second, interviews: diners who have just eaten at tables with different spacing could be interviewed as they leave, asking open questions such as "How did you feel about the distance from the next table?", giving detailed qualitative data on reasons for their feelings.

2(d) One advantage is that an internet questionnaire can reach a very large sample, potentially from all over the world, cheaply and quickly, so results about table spacing can be generalised to many types of diner.
A second advantage is that people are asked directly how they feel, e.g. whether they would feel overheard, rather than the researcher guessing from behaviour, and the standardised questions are easy to replicate and give quantitative data that can be compared across spacings.
One disadvantage is that participants may give socially desirable answers or respond to demand characteristics, and as they are imagining a scenario rather than actually eating, what they say may not match how they would behave in a real restaurant.
A second disadvantage is that closed, fixed-choice questions may force people into answers that do not reflect their true opinion, and the sample is self-selecting:

Question number	
	only people who find the link and have internet access take part, so it may be biased.
	Conclusion: internet questionnaires are a practical and efficient way to gather attitudes to table spacing from large samples, but their validity is limited, so they should be supported by observations of real diners.
	Psychology and health
3(a)	Asthma patients attending the clinic were identified beforehand by a review of their medical charts. At the start of the clinic visit, a research nurse briefly interviewed the patient, caretaker or both to find out the name and location of each pharmacy from which they obtained prescription medication.
3(b)	One strength is that identifying patients by chart review meant only appropriate people were included, those who actually had asthma and were prescribed medication, so the data were relevant. The interview also allowed the nurse to explain the purpose of the study so participants could give informed consent.
	One weakness is that this was opportunity sampling of patients at one clinic, so the nurse may have chosen people who seemed more likely to adhere, and the sample may not be representative. Being interviewed by a nurse may also make patients feel obliged to take part.
3(c)(i)	A biochemical test (Roth and Caron, 1978): a blood or urine sample is taken from the patient and tested for the presence or level of the medication, showing whether it has been taken.
3(c)(ii)	It is an objective measure: if the medicine has been taken, the test will detect it, so the result does not depend on the patient being honest, unlike self-report, and

Question number	
	it is more accurate than knowing only that a prescription was collected.
3(d)	One strength is that pharmacy records involve no subjective comment from the patient, who might give a dishonest or socially desirable answer about taking their medication. A second strength is that the records are objective and quantitative, e.g. the number of refills collected compared with the number expected, so adherence can be statistically analysed and compared between patients. One weakness is validity: the records only show that medication left the pharmacy, not that the patient actually used the inhaler correctly or at all, so adherence may be overestimated. A second weakness is that records give numbers but no explanation of why a patient is not adhering, e.g. side effects or cost, and they may not be reliable if prescriptions are recorded wrongly or the patient uses more than one pharmacy. Conclusion: pharmacy records are a useful, cheap and objective first check on adherence, as Sherman et al. showed, but they should be combined with a self-report or interview so that the reasons for non-adherence can be found and addressed.
	Psychology and organisations
4(a)	They used test-retest reliability: the MSQ was given to the same workers twice, after one week (N = 75) and after one year (N = 115), and the scores were correlated; correlations ranged from about 0.66 to 0.91. Internal consistency was also checked with Hoyt's analysis of variance, and most coefficients were above 0.9.
4(b)(i)	Ability utilisation, e.g. "the chance to do the kind of work that I do best".

Question number	
	Independence, e.g. "the chance to work alone on the job".
4(b)(ii)	Participants may start enthusiastically but become bored or tired as time passes, so they stop reading the items carefully and answer quickly, e.g. ticking the same point for every item. They no longer answer in the right way, so the validity of the later answers is lost.
4(c)	First, the five-point scale has a neutral midpoint ("neither dissatisfied nor satisfied"), so workers can opt out of giving a real answer. For example, on the item about supervision, a worker who fears management will see the response may simply choose the neutral point. Second, these neutral responses do not help the researcher to draw conclusions, e.g. if many workers choose "neither" for compensation, the organisation does not know whether pay needs changing. A four- or six-point scale would force a decision one way or the other.
4(d)	One advantage is that workers can complete a postal questionnaire at home, at their own leisure, so they can think about their answers without pressure from managers or colleagues. A second advantage is that it can be completed anonymously, so workers are more likely to give honest answers about dissatisfaction, e.g. with supervision, and it can give quantitative data for comparisons as well as qualitative data from open questions. One disadvantage is the low response rate: people may not receive it, may read it and not act on it, or may forget to return it, so perhaps only about 10% are returned, and those who reply may be the most satisfied or most dissatisfied, giving a biased sample. A second disadvantage is cost: printing, envelopes and postage both ways are

Question number

expensive compared with an online questionnaire, and there is no researcher to explain a confusing item.

Conclusion: postal questionnaires are useful for gathering honest, anonymous views on work satisfaction, but because of the low and biased response rate, an online or workplace questionnaire is often a better choice today.

Section B: Psychology and abnormality

5(a) Method: a laboratory-based (clinical) experiment with an independent measures design. Aim: to test whether covert sensitisation reduces the urge to steal in people with kleptomania.

Sample: 30 adults diagnosed with kleptomania using DSM criteria, recruited through clinics and volunteer adverts (volunteer sampling). They are randomly allocated to two groups of 15, matched for age, gender and severity of symptoms.

IV: type of treatment. Group 1 receives covert sensitisation: in 8 weekly one-hour sessions the therapist asks the patient to imagine, in detail, approaching an item in a shop and being about to take it, then immediately imagine an aversive scene, such as feeling nauseous, or being caught by a security guard and arrested in front of family. They then imagine walking away and feeling relief. They practise this imagery at home every day. Group 2 (control) receives 8 sessions of general supportive counselling for the same time.

DV: effectiveness, measured in two ways: (1) a self-rated urge-to-steal scale from 0 (no urge) to 10 (strongest urge), recorded daily in a diary; (2) the number of stealing episodes reported per week. Measures are taken at baseline, at the end of treatment and at a 6-month follow-up.

Controls: the same trained therapist delivers both treatments, sessions are the same length, and a standardised script is used for the imagery.

Analysis: mean urge scores and episodes are compared between groups and over

Question number	
	time and shown in a line graph.
	Ethics: informed consent; the right to withdraw; confidentiality, as stealing is illegal; aversive imagery is kept mild and patients are debriefed; the control group is offered covert sensitisation after the study.
5(b)	Psychological evidence: kleptomania is an impulse control disorder involving a recurrent failure to resist urges to steal objects that are not needed, with tension before and relief or pleasure after the theft. Covert sensitisation is a cognitive-behavioural treatment based on classical conditioning: the undesired behaviour (stealing) is paired in the imagination with an aversive stimulus, so the behaviour becomes associated with unpleasant feelings rather than pleasure. Covert means imagery is used rather than the actual behaviour, which is essential as patients cannot be asked to steal. Glover (2011) treated a woman with kleptomania using covert sensitisation with aversive imagery, and her urges and stealing reduced greatly and were maintained at follow-up. My procedure copied this, adding daily practice and a follow-up.
	Methodological evidence: an experiment allows cause and effect to be established, as the IV (treatment) is manipulated and other variables controlled. Glover was a single case study, so a larger sample with a control group improves generalisability and shows whether the effect is due to the technique rather than simply contact with a therapist. Random allocation and matching reduce participant variables. Self-report urge ratings give quantitative data that can be compared, and a baseline allows change to be measured. The follow-up checks whether improvement lasts. Confidentiality is crucial because the behaviour is illegal.
	Psychology and consumer behaviour
6(a)	Method: a covert, non-participant observation of shopper movement in a large

Question number

supermarket. Aim: to find whether males are more often "raider" shoppers and females "explorer" shoppers.

Sample: 100 male and 100 female adult shoppers, entering the store alone, observed by time sampling: the next lone shopper to enter after each 10-minute interval is followed, across different days and times of day.

Procedure: two trained observers, dressed as ordinary shoppers, follow each shopper at a distance and draw their route on a printed floor plan of the store, recording the time spent in the store and at each aisle.

Behavioural categories: Raider: walks fast, makes quick decisions, uses mainly the main aisles, short trip, few items, e.g. a basket. Explorer: long trip, goes down most aisles, visits some areas more than once, moves slowly, interacts with many products (picks up, reads labels), buys a lot, e.g. a full trolley. Each shopper is coded as raider, explorer or neither.

Additional measures: total time in store (minutes), number of aisles visited, number of items bought (checked at the till).

Analysis: a frequency table of gender against shopper type; percentages of males who are raiders and females who are explorers are calculated and shown in a bar chart. Mean time in store is compared for males and females.

Reliability: the observers code the first 20 shoppers together to check inter-rater reliability.

Ethics: the store manager gives consent; it is a public place where people expect to be seen; no names or images are recorded; shoppers are not followed outside the store.

6(b)

Psychological evidence: Gil et al. (2009) recorded the movement traces of shoppers in a supermarket and grouped them into patterns. The raider walks fast, makes decisions quickly and prefers the main aisles, going far into the store only if necessary on "top-up" or "food for tonight" missions; most raiders were male. The

Question number

explorer makes the longest trips, going everywhere, often more than once, slowly, with long interactions with products and buying a lot, covering all aisles on a "main" shopping mission. My behavioural categories, route maps and time measures were taken directly from these descriptions so that shoppers can be classified objectively.

Methodological evidence: observation was chosen because shopping movement is behaviour that people may not remember or report accurately in a questionnaire. A covert naturalistic observation in a real store gives high ecological validity and avoids demand characteristics, as shoppers do not know they are being watched. Time sampling gives every lone shopper an equal chance of selection and reduces observer bias in choosing whom to follow. Clear behavioural categories give quantitative data, so frequencies of male and female raiders and explorers can be compared. Two observers allow inter-rater reliability to be checked. Only lone shoppers were chosen because a partner could influence the route.

Psychology and health

7(a) Method: a quasi-experiment comparing three age groups (the IV is naturally occurring), using a computerised symptom questionnaire. Aim: to find whether age affects how much medical information patients disclose.

Sample: 90 patients attending a general practice clinic, 30 aged 18 to 30, 30 aged 31 to 59 and 30 aged 60 and over, recruited by opportunity sampling in the waiting room.

Procedure: before seeing the doctor, each patient completes a standardised computer-based interview about their health, with questions on sensitive and non-sensitive topics, e.g. "How many units of alcohol do you drink per week?", "Do you smoke?", "Have you had any problems with your mood?", "How many symptoms have you noticed in the last month?". Afterwards the doctor carries out

Question number

a standard face-to-face interview covering the same topics.

DV: amount of information disclosed, measured as the number of symptoms and risk behaviours reported in each format, scored by two independent researchers from the records.

Controls: all patients answer the same questions in the same order; the same doctors are used for all age groups; the computer interview is designed to be easy to use with large text, so older people are not disadvantaged.

Analysis: mean number of disclosures for each age group, for computer and doctor formats, shown in a bar chart.

Ethics: informed consent, confidentiality of medical information, right to withdraw without affecting their care, and a debrief; any serious symptom disclosed is passed to the doctor.

7(b) Psychological evidence: Robinson and West (1992) studied patients attending a clinic for sexually transmitted diseases. Symptoms were recorded by a computerised interview, a paper questionnaire and a standard physician interview. More information was given to the computer than on paper, and both gave more than the face-to-face consultation with a doctor, suggesting patients are embarrassed to disclose sensitive information to a person. My study used both a computer interview and a doctor interview so that I could see whether this pattern differs with age; for example, older people may be less familiar with computers or more used to telling the doctor, whereas younger people may prefer the computer.

Methodological evidence: a quasi-experiment is needed because age cannot be manipulated. Three age groups give a clear comparison. A standardised computer interview means every participant gets identical questions, increasing reliability, and counting disclosures gives quantitative data for comparing means. A real clinic gives ecological validity. Using two scorers checks inter-rater reliability.

Confidentiality is essential because medical information is sensitive.

Question number

Psychology and organisations

8(a) Method: a field experiment in a factory with a repeated measures design. Aim: to find whether the colour of lighting affects productivity.

Sample: 40 workers on one assembly line in a factory making a single product, all doing the same task; opportunity sample of the workers on that shift.

IV: colour of lighting: white (control), blue and yellow, each of the same brightness (measured in lux). Each colour is used for two weeks, and the order is counterbalanced across two production lines to control order effects. A week of normal lighting is left between conditions.

DV: productivity, measured as the number of correctly completed units per worker per hour, taken from the factory's automatic production records; errors (rejected units) are also recorded.

Controls: same shift times, same tasks, same supervisors, temperature and noise kept constant. To reduce the Hawthorne effect, workers are told the lights are being updated as normal maintenance and are not told productivity is being studied; a baseline is recorded for two weeks before any change.

Additional data: a short questionnaire at the end of each condition: "How comfortable did you find the lighting this week?" rated 1 to 5.

Analysis: mean units per hour in each colour condition are compared with the baseline and shown in a bar chart.

Ethics: management consent; workers are debriefed at the end, told the true aim and allowed to withdraw their data; no individual's productivity is reported to management, so no one can be disadvantaged.

8(b) Psychological evidence: the Hawthorne studies at the Western Electric Company (reviewed by Wikstrom and Bendix, 2000) investigated physical work conditions. In

Question number

the illumination experiments, lighting was changed for a test group, and productivity increased in both the test and control groups, even when lighting was reduced. This suggested that workers increased production because management were observing them and showing interest in them, rather than because of the lighting itself (the Hawthorne effect). My design therefore measured a baseline, kept workers unaware of the true aim and used a white-light control condition, so that any change with colour can be separated from the effect of being observed. Methodological evidence: a field experiment gives high ecological validity, as workers do their real jobs, while still manipulating the IV so cause and effect can be inferred. A repeated measures design removes participant variables such as skill, and counterbalancing controls order effects such as practice and fatigue. Keeping brightness constant means only colour changes, so the IV is valid. Productivity records are objective quantitative data, avoiding self-report bias, while the comfort rating adds some workers' views. Not revealing the aim raises an ethical issue of deception, so a full debrief is needed.

Section C: Psychology and abnormality

9 Lovell et al. (2006) compared exposure and response prevention for OCD delivered by telephone with the same treatment delivered face-to-face. Patients were randomly allocated to ten sessions in either format and their OCD symptoms were measured, e.g. with the Y-BOCS, before, after and at follow-up. Both groups improved by a similar amount, so telephone treatment was as effective as face-to-face treatment.

This evidence argues against the statement. The therapy and procedures are exactly the same, with the same exposure hierarchy and homework. Telephone treatment has practical advantages: there is no travelling time, sessions are shorter (around 30 minutes rather than an hour), and the patient is in their familiar

Question number

home environment, which may be less stressful than a therapist's office. Exposure can also be practised where the compulsions actually happen, e.g. touching items in their own kitchen. Lehmkuhl et al. (2008) showed that parents can help a child practise ERP at home, supporting the idea that treatment does not need to happen in person to work. Patients with contamination fears or agoraphobia may find it hard to attend a clinic, so telephone CBT may be more effective for them because they actually engage with treatment.

However, there is some support for the statement. On the telephone there is no non-verbal communication, so the therapist cannot see signs of anxiety or check whether the patient is secretly performing a compulsion during exposure. Verbal communication may also be restricted, as patients may talk less than face-to-face. The therapist cannot easily review materials such as the homework diary and cannot control the environment: at home there may be distractions such as family members. Building a trusting relationship may be harder, and Lovell et al.'s sample may not represent patients with very severe OCD.

Conclusion: I disagree with the word "never". Evidence from Lovell et al. shows telephone CBT can be as effective, especially for mild to moderate OCD, though face-to-face treatment may still be better for severe cases where the therapist needs to observe the patient directly.

Psychology and consumer behaviour

10 Satisficing (Simon, 1956) combines "satisfy" and "suffice". It says consumers have limited time, information and processing capacity (bounded rationality), so rather than finding the best option they search until they find one that is good enough and then stop.

There are reasons to agree. Satisficing is simple and realistic: why continue searching when this one will do? It explains why consumers do not spend hours

Question number

comparing every brand of milk or toothpaste. It cuts out the time needed, unlike utility theory, which assumes consumers consider every option and rank them consistently by preference to choose the one with the highest utility, something most people cannot do. Satisficing removes this unrealistic assumption.

However, it is not the only model needed. It assumes decisions can be made quickly and simply; some can, but high-involvement purchases such as a car or house involve careful comparison of features, which compensatory strategies and utility theory explain better. Prospect theory (Kahneman and Tversky, 1979) goes beyond satisficing by showing that value matters: people weigh losses more heavily than equal gains, so a "save 20%" message is processed differently from "pay 20% more", and the endowment effect means people value products more once they own them. Satisficing cannot explain these effects. It also does not describe how the "good enough" threshold is set, or the processes people actually go through.

Other approaches, such as consideration theory and involvement theory, explain why the effort a consumer puts in varies with the product. Satisficing is useful for describing consumer choices but is of little help to a seller trying to persuade an undecided customer. There are also individual differences, as some people are "maximisers".

Conclusion: I disagree. Satisficing explains many everyday, low-involvement decisions well, but a full explanation of consumer decision-making also needs utility theory for careful comparisons and prospect theory for the role of value and framing.

Psychology and health

11 Practitioner style can be doctor-centred, where the doctor controls the consultation and makes decisions, or patient-centred, where the patient is involved and understanding is checked. Byrne and Long (1976) analysed about 2500 recorded

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consultations and found most doctors used a doctor-centred style, which suggests doctors often expect patients simply to follow instructions.

There is some support for the statement. Savage and Armstrong (1990) found that patients in a general practice were more satisfied when the doctor used a directing (doctor-centred) style than a sharing style, so some patients simply want to be told what to do. The patient may use vague terms ("it really hurts") and the doctor may use complex terms; if the treatment is a simple instruction, e.g. take one tablet twice a day, the patient does not need to understand the medical term to get better.

However, there are strong reasons to disagree. McKinlay (1975) found that women in a maternity ward often did not understand the medical terms doctors used with them, and that doctors used these terms even though they expected patients not to understand. If patients do not understand, they cannot follow instructions correctly. Ley's cognitive hypothesis (1988) suggests that understanding and memory of what the doctor says lead to satisfaction and so to adherence; poor understanding therefore leads to non-adherence, so the patient does not get better. Patients also know how they feel and the type of pain they experience, so the doctor needs two-way communication to diagnose correctly, and patients need to ask questions about their treatment. Some studies show patients prefer a patient-centred approach, and the preference may depend on the individual and the condition. Patients may also make rational decisions not to adhere, e.g. because of side effects, which shows that simply being told what to do is not enough. The statement is also unethical, as patients have a right to understand and consent to treatment.

Conclusion: I disagree. Some patients prefer being directed, but because understanding affects memory, satisfaction and adherence, it does matter whether patients understand medical terms, and doctors should check understanding while adapting their style to the patient.

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Psychology and organisations

12 Herzberg's two-factor theory (1959) was developed from interviews with engineers and accountants, using the critical incident technique. It says job satisfaction and dissatisfaction are caused by different factors. Motivators, such as achievement, recognition, the work itself, responsibility and advancement, lead to satisfaction. Hygiene factors, such as company policy, supervision, salary, interpersonal relations and working conditions, do not create satisfaction but cause dissatisfaction when they are poor.

There are reasons to agree that it is reductionist. Job satisfaction is broken down into just two components, and each is broken down into a small number of factors. Breaking it down in this way may lose sight of overall job satisfaction and does not consider how the factors interact; e.g. a low salary may reduce the value of recognition. It ignores individual differences: for some workers pay is a motivator, not just a hygiene factor. The critical incident method may also be biased, as people attribute good events to themselves (motivators) and bad events to the organisation (hygiene factors), and the sample of engineers and accountants may not generalise to other jobs or cultures.

However, the reductionism also makes the theory useful. Breaking satisfaction down allows each factor to be studied in detail and measured; for example, one factor can be isolated as an IV while others are controlled. Separating satisfiers from dissatisfiers is justified because they really are different: improving working conditions may stop complaints but will not make workers enthusiastic. This has practical applications: managers know to fix hygiene factors first and then use job enrichment, giving responsibility and recognition, to increase satisfaction. The model is also only slightly reductionist, as it includes many factors, and more can be added as they are discovered. Measures such as the Minnesota Satisfaction

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Questionnaire (Weiss et al., 1967) also break satisfaction into components and are widely used.

Conclusion: I disagree. The two-factor theory is reductionist, but this is what makes it useful, as it gives managers clear, testable factors to act on; its weakness is that it oversimplifies how factors interact and vary between individuals, so it should be used with that limitation in mind.

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PSYCHOLOGY **9990/43**

Paper 4 Specialist Options: Application **May/June 2020**

1 hour 30 minutes

8848790949

You must answer on the enclosed answer booklet.

You will need: Answer booklet (enclosed)

INSTRUCTIONS

- Answer **four** questions in total:
  - Answer questions from **two** options.
    - Section A: answer **two** questions.
    - Section B: answer **one** question.
    - Section C: answer **one** question.
- Follow the instructions on the front cover of the answer booklet. If you need additional answer paper, ask the invigilator for a continuation booklet.

INFORMATION

- The total mark for this paper is 60.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **8** pages. Blank pages are indicated.

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Section A

You must answer **two** questions from this section.
Answer all the parts for the two questions you choose.

Psychology and abnormality

1 Newspaper headline: Treatment for schizophrenia is successful.
Sensky et al. (2000) conducted a longitudinal study and found that cognitive-behavioural therapy was effective. It treated both negative and positive symptoms in patients that were resistant to drug treatments for schizophrenia.

(a) Explain what is meant by the term 'baseline' when gathering data. [2]

(b) Suggest **two** weaknesses of the longitudinal method in the study by Sensky et al. (2000). [4]

(c) A randomised controlled design was used by Sensky et al.

(i) Identify the **two** therapies that this design compared. [2]

(ii) Suggest why a randomised controlled design was used. [2]

(d) Discuss the strengths and weaknesses of cognitive-behavioural therapy as an alternative to drug treatments for schizophrenia. You should include a conclusion in your answer. [5]

Psychology and consumer behaviour

2 *'There has been little attempt to understand the influence on children of branded products that appear in television programs and movies. A study exposed children of two different age groups (6–7 and 11–12) in classrooms to a brief film clip. They were then individually asked to demonstrate their witness skills by describing in as much detail as possible what they had seen.'*
Extract from the abstract from Auty and Lewis (2004)

(a) Explain what is meant by 'brand recognition'. [2]

(b) Give the **two** conclusions from the study by Auty and Lewis (2004). [4]

(c) **(i)** Give **two** examples of what Auty and Lewis did to ensure that the ethical guideline of informed consent was followed. [2]

(ii) Suggest **one** way in which this study could be considered to be unethical. [2]

(d) Discuss the advantages and disadvantages of using interviews to investigate brand recognition in children. You should include a conclusion in your answer. [5]

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Psychology and health

3 The Wong-Baker faces pain rating scale for children.

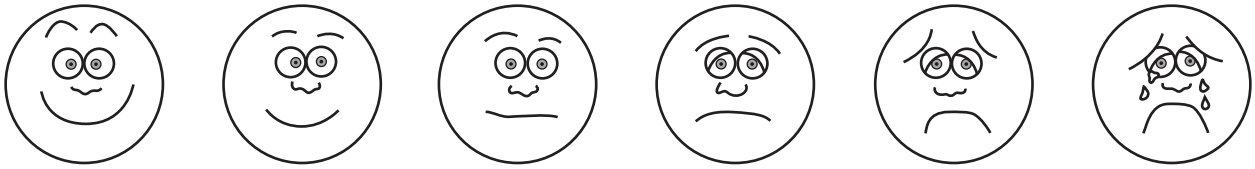


Fig. 3.1

(a) Explain how the Wong-Baker scale is used to measure pain in children. [2]

(b) **(i)** Explain how the test-retest reliability of this scale could be tested. [2]

(ii) Suggest **one** reason why this scale might be less useful with older children than with younger children. [2]

(c) Suggest **two** ways in which pain can be measured in children without using a pain rating scale. [4]

(d) Discuss the advantages and disadvantages of having pain measures specifically for use with children. You should include a conclusion in your answer. [5]

Psychology and organisations

4 Wedley and Field (1984) proposed that the decision-making process of any group can be improved using a pre-decision support system. Their model of the pre-decision process begins with the manager answering situational questions. Examples of these questions and how they could be answered appear in Table 4.1.

Table 4.1

Question number	Questions	Your answers
1	Is quality required?	Yes ~~No~~
2	Have you sufficient information?	~~Yes~~ No
3	Is the problem structured?	~~Yes~~ No
4	Is acceptance important?	Yes ~~No~~
5	Would your autocratic decision be accepted?	Yes ~~No~~

(a) Explain what is meant by the term ‘pre-decision support system’. [2]

(b) **(i)** Identify the type of questions used to gather the data in Table 4.1. [1]

(ii) Identify the type of data gathered in Table 4.1. [1]

(iii) Suggest **one** disadvantage of this type of data, using an example from Table 4.1. [2]

(c) Suggest **two** ways in which any decision support system can improve managerial effectiveness. [4]

(d) Discuss the advantages and disadvantages of gathering data from managers and workers about decision-making in their organisation. You should include a conclusion in your answer. [5]

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Section B

You must answer **one** question from this section.

Psychology and abnormality

5 **(a)** Design a study to investigate which type of phobia the general public think is the **most** common. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and consumer behaviour

6 **(a)** Design a study using a questionnaire to investigate whether people prefer a customer-focused approach or a product-focused approach when buying a new car. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and health

7 **(a)** Design a study using an interview to investigate what the students in a school understand by the terms ‘acute pain’ and ‘chronic pain’. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

Psychology and organisations

8 **(a)** Design a study using observations to investigate which followership type is the **most** common in an organisation producing toys. [10]

(b) Explain the psychological and methodological evidence on which your study is based. [8]

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Section C

You must answer **one** question from this section.

Psychology and abnormality

9 *'Symptom assessment of schizophrenia using virtual reality will one day remove the need for a doctor.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and consumer behaviour

10 *'The theory of planned behaviour: if you plan to buy and you intend to buy, you definitely will buy.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and health

11 *'Health promotion strategies developed in one country, such as those in the five-city project (Farquhar et al., 1985), can never generalise to other countries.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

Psychology and organisations

12 *'Errors in group decision-making are always due to the cognitive limitations of an individual rather than to being part of a groupthink situation.'*

To what extent do you agree with this statement? Use examples of research you have studied to support your answer. [12]

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Surname	StemUp Model Solution
Answer booklet	Write the question number in the left-hand margin at the start of each answer.

Question number

Answers for paper 9990/43

Section A: Psychology and abnormality

1(a) A baseline is a measure of the participants' symptoms or behaviour taken at the start, before any treatment is given. Later measurements (e.g. after nine months of CBT) can be compared with this baseline, so changes can be tracked to show whether the intervention has been effective.

1(b) One weakness is participant attrition. Sensky et al. followed patients over nine months of therapy and a further nine months of follow-up, so some patients may drop out, e.g. because their symptoms worsen or they move away. The final sample may then be biased towards those who responded well, which exaggerates the effectiveness of CBT.

A second weakness is that over such a long time extraneous variables cannot be controlled. Patients may not follow the treatment programme exactly, may change or take other medication, or may experience life events or other illnesses, so it is hard to be sure that any change in their schizophrenic symptoms was caused by the CBT itself.

1(c)(i) Manualised cognitive-behavioural therapy developed specifically for schizophrenia, compared with a non-specific befriending intervention used as a control.

1(c)(ii) In a randomised controlled design the researchers do not choose who goes into each condition; patients are allocated randomly, by chance. This removes

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researcher bias and spreads participant variables (e.g. severity of symptoms) evenly across the CBT and befriending groups, so any difference in outcome can be attributed to the therapy. The befriending group also acts as a control for the attention patients receive from a therapist.

1(d) One strength of CBT is that no drugs are taken, so the patient avoids side effects such as weight gain or tardive dyskinesia, and cannot become dependent on medication. This is important for the drug-resistant patients in Sensky et al.'s study, for whom drugs had not worked anyway.

A second strength is that the patient plays an active role in their own treatment, guided by a therapist who helps them challenge beliefs about voices or delusions. Sensky et al. found that the improvement after CBT was maintained at the nine-month follow-up, suggesting the patient learns lasting coping skills.

However, one weakness is that CBT needs much more effort from the patient than passively swallowing a pill, and patients with severe negative symptoms such as avolition, or with disorganised thinking, may not be able to engage with it.

A second weakness is that the cause of schizophrenia may be biochemical, e.g. excess dopamine, so a drug treatment targets the cause directly, whereas CBT only helps the patient cope. CBT also needs a trained therapist for many sessions, which costs more and takes more time than taking medication.

Conclusion: CBT should not replace drugs for every patient, because it depends on the patient being able and willing to engage, but for drug-resistant patients it is a valuable alternative, and for most patients the best outcome is likely to come from using it alongside medication.

Psychology and consumer behaviour

2(a) Brand recognition is the consumer's ability to identify a particular brand or firm

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	from its distinctive cues, such as its logo, motto, colours or packaging, e.g. recognising Coca-Cola from its red and white logo without seeing the name.
2(b)	First, it is not simply exposure to the film clip that affects choice. The interviews suggested that it was previous exposure to the brand together with a reminder in the form of recent exposure (seeing Pepsi in the Home Alone clip) that made children more likely to choose that brand. Second, age, and so processing skill, does not appear to be a mediating factor in choice. Both the 6 to 7 and the 11 to 12 year olds were affected, because implicit memory (mere exposure) seems to be more important than explicit recall of the brand.
2(c)(i)	Prior written permission to offer the children a soft drink during a brief interview was obtained from the parents. Parents and teachers were told that the children would be asked questions about their observations after they had viewed a film clip.
2(c)(ii)	The children may not have been properly debriefed. Each interview took about five minutes, after which the child was returned to the classroom and the next one called out, so there is no evidence the children were told the true purpose of the study (that it was about product placement, not witness skills).
2(d)	One advantage is that an interview allows children to give their own view in full detail, explaining what they saw and why they chose a drink, which a questionnaire could not capture, especially for young children who cannot read or write well. A second advantage is that the interview can be done individually, as in Auty and Lewis, so the child is not embarrassed or influenced by classmates, and it can be

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	recorded as evidence of exactly what was said.
	One disadvantage is that children may be reluctant to be interviewed by a strange adult but go along with it because they think it is what the adult wants, so their answers may reflect demand characteristics rather than genuine brand recognition.
	A second disadvantage is that children may misunderstand the questions, especially the younger 6 to 7 year olds, or may hide or change information, which lowers the validity of the data.
	Conclusion: interviews are probably the most suitable method with children, provided the questions are simple and structured, because they need no reading or writing skills, but they should be combined with a behavioural measure such as which drink the child actually chooses to check validity.
	Psychology and health
3(a)	The scale is shown to the child, who is asked to point to the face that best reflects how much pain they feel. The faces range from a happy face (no hurt, scored 0) to a crying face (hurts worst, scored 5), so the chosen face gives a number for the child's pain.
3(b)(i)	The same children would rate the same painful events on the scale again after a period of time, e.g. the day after the first test (2 to 4 days later in some cases, as in Wong and Baker), and the two sets of ratings would be correlated. A high positive correlation shows good test-retest reliability.
3(b)(ii)	Older children may find the cartoon faces childish and lose interest, so they are less motivated to rate their pain accurately than younger children who enjoy the task. Wong and Baker found reliability decreased at around age 12, so the scale is less useful for older children.

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3(c)	One way is an observational (behavioural) measure. A nurse or parent observes the child for signs of pain such as crying, facial grimacing, guarding the painful area or distorted walking. This is useful for very young children who cannot describe their pain. A second way is the McGill Pain Questionnaire (Melzack, 1975). The child could mark on a drawing of the body where the pain is, and choose words describing what the pain feels like (e.g. throbbing, stabbing) and how it changes with time. A clinical interview, in which the practitioner asks the child about the pain, could also be used.
3(d)	One advantage is that children may be too young to explain their pain or take part in an adult clinical interview, so a simple measure like choosing a face lets them express their pain without needing a large vocabulary. A second advantage is that children may be nervous of the practitioner or the procedure. A child-friendly task such as a row of cartoon faces or a colouring task may put them at ease, so they give a more honest rating. One disadvantage is validity: the smiley faces may not translate into the actual amount or type of pain the child is feeling, e.g. a child may choose the crying face because they are scared rather than in pain. A second disadvantage is that such measures may not be reliable or may be tested in artificial conditions. In Wong and Baker's study the children were not in pain at the time, and reliability fell with age, so results may differ when children are actually in pain. Conclusion: child-specific measures are necessary because adult measures rely on language children do not have, but they should be matched to the child's age and combined with observation by parents or nurses so that the rating can be checked.

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	Psychology and organisations
4(a)	A decision support system is a (usually computerised) information system that helps managers make better decisions by organising and analysing information. A pre-decision support system, as proposed by Wedley and Field, helps before the decision is made: the manager answers situational questions (such as those in Table 4.1) to identify the best decision-making approach for less structured problems that need management judgement.
4(b)(i)	Closed (yes/no) questions.
4(b)(ii)	Quantitative data, specifically nominal (categorical) data, as each answer is put in a category.
4(b)(iii)	Closed yes/no answers give no detail or reasons. For example, for question 2 "Have you sufficient information?" the manager answered No, but this does not show what information is missing or how much more is needed, so the data may lack validity and depth.
4(c)	First, it can improve personal efficiency: the system allows a manager to perform a task in a different way that uses less time or less effort, e.g. a computer analyses sales data instantly instead of the manager working through it by hand. Second, it can expedite problem solving by giving faster turnaround, new insights, better consistency and greater accuracy, e.g. answering the situational questions leads the manager to the same suitable approach every time a similar problem arises. It can also help communication across the organisation, as everyone can see the same information.

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4(d)	One advantage is that workers may want to please management and show organisational commitment (Mowday et al.), so they are willing to take part fully and give detailed information about how decisions are made. A second advantage is that managers gathering data from their own workers know them and the organisation well, so they can ask relevant questions and understand the answers in context. One disadvantage is that workers may respond to demand characteristics or want to impress, as in the Hawthorne effect, so they say what they think managers want to hear rather than the truth about decision-making. A second disadvantage is that managers may have a hidden agenda, e.g. wanting to show their own decisions are good, so they may report information selectively; workers with low commitment may even give false answers to go against management. Conclusion: gathering data from managers and workers is essential, because they are the people who make and experience the decisions, but it is more valid if the data are collected anonymously by an independent researcher rather than by the organisation itself.
	Section B: Psychology and abnormality
5(a)	Method: a questionnaire survey of the general public. Aim: to find which type of phobia people believe is the most common. Sample: 200 adults aged 18 and over, chosen by opportunity sampling in a busy city shopping centre on different days and times so that a range of ages, genders and backgrounds are included. Equal numbers of males and females will be recruited. Questionnaire: section 1 collects demographic data (age, gender, whether they have a phobia themselves). Section 2 has closed questions. Q1: "Which one of these

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	phobias do you think is the most common?" with a list: agoraphobia, social phobia, animal phobia (e.g. dogs, spiders), blood-injection-injury phobia, button phobia, heights, other. Q2: "Rank these phobias from 1 (most common) to 7 (least common)." Section 3 has an open question: "Why do you think this phobia is the most common?"
	Procedure: the researcher approaches people, explains the study, and gives them the questionnaire on a clipboard to complete there and then (about 5 minutes). Terms such as agoraphobia are explained in a short definition beside each option, so all participants understand them in the same way.
	Data and analysis: quantitative data from Q1 are shown as frequencies and percentages for each phobia in a bar chart; the mode identifies the phobia thought most common. Mean ranks from Q2 are compared. Qualitative answers are analysed by thematic analysis.
	Reliability and validity: the questionnaire is standardised, so every person gets the same questions; a test-retest check with 20 participants a week later checks reliability. Answers are anonymous to reduce social desirability.
	Ethics: informed consent is obtained, the right to withdraw is explained, no names are recorded, and a debrief sheet gives information about phobias and where to get help in case the topic causes distress.
5(b)	Psychological evidence: a phobia is an anxiety disorder involving an intense, irrational fear of an object or situation, leading to avoidance. DSM classifies agoraphobia and specific phobias, and the syllabus studies show the range of types: DiNardo et al. (1988) studied people with dog phobia, Saavedra and Silverman (2002) a boy with button phobia, Watson and Rayner (1920) conditioned Little Albert to fear a white rat, and Freud (1909) described Little Hans's fear of horses. I therefore listed agoraphobia, animal, blood and button phobias as options. Because the study measures what the public think, not actual

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prevalence, I included agoraphobia with a definition, as many people may not know the term.

Methodological evidence: a questionnaire was chosen because it can collect data quickly from a large sample, which is needed to generalise to the general public. Closed questions give quantitative data that can be compared easily and converted into percentages, so the most common choice can be identified objectively. The open question adds qualitative data, giving the reasons behind choices and increasing validity. Opportunity sampling in a shopping centre is practical and reaches a varied population, although it may not be fully representative. Standardised instructions and definitions improve reliability, and anonymity reduces social desirability bias, which might occur if people felt embarrassed to say they have a phobia. Ethical guidelines were followed because the topic could cause anxiety for people with phobias.

Psychology and consumer behaviour

6(a) Method: a questionnaire. Aim: to find whether car buyers prefer a customer-focused or a product-focused sales approach.

Sample: 120 people who have bought a new car in the last 12 months, recruited by asking five car dealerships to post the questionnaire to recent customers (a sample of customers from each, so different brands and price ranges are covered). It could also be completed online via a link.

Questionnaire: section 1 collects demographic data (age, gender, car bought). Section 2 describes two short scenarios. In scenario A (product-focused) the salesperson explains the car's features, engine size, safety specification and fuel economy in detail. In scenario B (customer-focused) the salesperson asks about the buyer's needs, family, budget and lifestyle and then suggests a car to fit them.

Question number

Questions: "I would prefer to be sold a car in the way shown in scenario A" rated on a Likert scale from 1 (strongly disagree) to 5 (strongly agree), and the same for scenario B. A closed question: "Which approach would you prefer? A / B." An open question: "Explain why you prefer this approach."

Analysis: quantitative data: mean ratings for A and B are compared, and the percentage choosing each approach is calculated and shown in a bar chart. Qualitative data from the open question are analysed into themes, e.g. "feels personal", "wanted facts".

Controls: the two scenarios are of equal length; the order is counterbalanced so half the participants read A first and half B first, to avoid order effects.

Ethics: a cover letter gives informed consent information and the right to withdraw; responses are anonymous and returned in a sealed envelope; a debrief explains the aim.

6(b)

Psychological evidence: sales techniques can be customer-focused, competitor-focused or product-focused. In a product-focused approach the emphasis is on the product: its special features and design specifications, and educating the customer about it, so the salesperson needs excellent product knowledge. In a customer-focused approach each customer is seen as unique; the seller asks about the customer's needs, wants and desires and fits the product to the customer. My two scenarios were based directly on these definitions, so each participant compares exactly the two techniques the question asks about. A car is a high-involvement purchase, so buyers are likely to have clear views on how they were sold to.

Methodological evidence: a questionnaire was named in the question and allows a large sample of genuine recent buyers to be reached cheaply by post or online, improving generalisability. The Likert scale gives quantitative data so the strength of preference for each approach can be compared using means. The forced-choice

Question number

question gives a clear answer to the aim, and the open question gives qualitative data to explain the reasons, increasing validity. Scenarios standardise what participants are judging, which increases reliability. Counterbalancing controls order effects. Anonymity reduces social desirability, as people will not feel pressure to praise a particular dealership.

Psychology and health

7(a) Method: semi-structured interview. Aim: to find what students in a school understand by acute and chronic pain.

Sample: 40 students aged 11 to 18, chosen by stratified sampling: 8 from each of five year groups, half male and half female, selected randomly from the school register in each stratum. This allows age differences to be compared.

Setting: a quiet room in the school, one student at a time, lasting about 15 minutes. The interviewer is a trained researcher, not a teacher, so students do not feel they are being tested.

Questions: fixed questions asked to everyone, plus follow-up questions where needed. Q1: "What does the word pain mean to you?" Q2: "Have you heard the term acute pain? What do you think it means?" Q3: "What do you think chronic pain means?" Q4: "Can you give an example of each?" Q5 (closed): "A broken arm that hurts for a week is: acute / chronic / don't know." Q6 (closed): "Back pain lasting six months is: acute / chronic / don't know."

Scoring: the answers to the open questions are recorded (with consent) and transcribed. Each definition is scored 0 (incorrect), 1 (partly correct) or 2 (fully correct, e.g. mentions duration). Two researchers score the answers independently to check inter-rater reliability. Closed answers give the percentage correct.

Analysis: mean understanding scores are compared between year groups; qualitative answers are analysed into themes, e.g. "acute means very strong", a common

Question number	
	misunderstanding. Ethics: consent from the head teacher, parents and the students; right to withdraw; confidentiality; students are debriefed with correct definitions so they do not feel they failed.
7(b)	Psychological evidence: pain can be defined as acute or chronic. Acute pain is short-term and temporary, lasting less than about three months, and usually has a clear cause, e.g. a finger trapped in a door; it acts as a warning and goes when the injury heals. Chronic pain is long-term, lasting three months or more, e.g. arthritis or back pain, and may continue after healing. My scenario questions (broken arm for a week, back pain for six months) were based on these definitions, so students' understanding can be scored against the correct distinction of duration rather than intensity. Students may confuse "acute" with "severe", which the open questions can reveal. Methodological evidence: an interview was named and suits this aim, because understanding is best explored by letting students explain in their own words; a semi-structured format keeps core questions standardised for reliability while allowing follow-up questions for depth and validity. The mixture of open and closed questions gives both qualitative and quantitative data. Stratified sampling makes the sample representative of all year groups. Individual interviews in a quiet room avoid conformity to friends' answers. Using two scorers allows inter-rater reliability to be checked. Because participants are under 16, parental consent is needed.
	Psychology and organisations
8(a)	Method: a covert, non-participant naturalistic observation in a toy factory. Aim: to find which of Kelley's followership types is the most common. Sample and setting: 50 production and office workers in one toy-producing

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	organisation, chosen by opportunity sampling from those working on the days of observation. Two trained observers are placed in the workplace, presented as staff carrying out a routine efficiency review, so behaviour remains natural (with the management's agreement).
	Behavioural categories (response categories) based on Kelley (1988): exemplary (suggests improvements and carries them out, works without supervision); conformist (agrees with and does whatever the supervisor says, positive but rarely questions); passive (waits to be told what to do, does the minimum, needs constant direction); alienated (criticises decisions, e.g. complains about a new toy design, but does not help to improve things); pragmatist (changes behaviour to suit the situation, e.g. works hard only when the manager is present).
	Sampling frame: time sampling. Each worker is observed for one minute every 15 minutes across a full working week, and each observer ticks the category that best describes the behaviour shown in a tally chart.
	Reliability: both observers record the same workers independently; their tallies are correlated to check inter-rater reliability, after a pilot study to train them on the categories.
	Analysis: each worker is assigned the followership type they showed most often; the frequency and percentage of each type are calculated and shown in a bar chart, and the mode is the most common type.
	Ethics: as observation is covert, workers are debriefed afterwards, told the purpose, and given the right to withdraw their data; no names are recorded, so data cannot be used against workers.
8(b)	Psychological evidence: Kelley (1988) classified followers on two dimensions: independent, critical thinking versus dependent, uncritical thinking, and active versus passive engagement. This gives five types: exemplary ("star") followers think for themselves, have positive energy and are actively engaged; conformist followers

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("yes people") are active but let the leader think for them; passive followers ("sheep") are low on both and are motivated by the leader rather than themselves; alienated followers think for themselves but are negative and do not contribute to the organisation's direction; pragmatists show a minimal level of both and change to suit the situation. My behavioural categories were operationalised directly from these descriptions so that each observed behaviour could be classified as one of Kelley's types.

Methodological evidence: observation was named in the question; a naturalistic setting gives high ecological validity as workers are in their real jobs. Making it covert avoids the Hawthorne effect, where workers change behaviour because they know they are being watched, which would bias the results towards exemplary behaviour. Clear behavioural categories make the data quantitative and objective, and time sampling makes recording manageable and representative across the day. Two observers allow inter-rater reliability to be checked. Debriefing and confidentiality address the ethical problem of lack of consent.

Section C: Psychology and abnormality

9 Symptom assessment of schizophrenia normally relies on a doctor interviewing the patient, e.g. using DSM or ICD criteria. Freeman et al. (2003) used virtual reality instead: participants entered a virtual library populated by neutral avatars and then reported their thoughts about them. Some people interpreted the neutral avatars as hostile, showing that VR can reveal persecutory (paranoid) thinking.

There is evidence to agree. In VR the patient can show how they actually behave and think in a situation, rather than trying to describe it to a doctor, who otherwise has no idea how the patient behaves in the real world. Because the avatars were programmed to be neutral, any paranoid interpretation must come from the person, so the measure is objective and standardised, giving high

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reliability. Patients may also be more honest: Robinson and West (1992) found patients disclosed more information to a computer than to a doctor in a face-to-face interview, so a computer-based assessment may reveal symptoms a patient would hide. In the future, computers may be programmed to interpret responses and suggest a diagnosis.

However, there are strong reasons to disagree. Freeman et al. used a non-clinical sample, so VR has not been shown to diagnose schizophrenia itself, and VR can only test some symptoms, such as paranoia; it cannot easily assess hallucinations, disorganised speech or negative symptoms. A doctor will always be needed to interpret the behaviour, take a history, rule out other causes such as drug use, and make a diagnosis. A doctor can ask follow-up questions as they arise, whereas VR cannot genuinely interact. Treatment, such as prescribing antipsychotic medication, also requires a doctor. Some patients with paranoid symptoms may find VR frightening, raising ethical issues of harm that need clinical judgement. Experience cannot be fully programmed into a computer.

Conclusion: I largely disagree. VR is a useful, objective tool that can add evidence about how a patient reacts in realistic situations, but it assesses only certain symptoms and cannot diagnose, treat or interact; so it will support rather than remove the need for a doctor.

Psychology and consumer behaviour

10 The theory of planned behaviour (Ajzen, 1991) says behaviour is predicted by intention, and intention is formed by three factors: attitude towards the behaviour (e.g. "buying this phone would be good"), subjective norms (what important others think) and perceived behavioural control (whether the person believes they can do it, e.g. can afford it). Perceived control can also affect behaviour directly.

There is evidence to agree. The model proposes that intentions lead to behaviour

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and it has much supporting evidence in consumer settings: intentions predicted the purchase of a specific brand of grape drink (Bonfield, 1974) and of toothpaste (Wilson et al., 1975). Bagozzi et al. (2000) suggest the model applies across cultures. This means that if a consumer plans and intends to buy, they usually do, which is useful to marketers.

However, the word "definitely" is too strong. What people say they intend and what they do is often different: this is the intention-behaviour gap. A consumer may intend to buy but be prevented by situational factors not in the model, such as the product being out of stock, a price rise or a better offer from a competitor. Perceived behavioural control is only the person's belief, not actual control. There are individual differences, e.g. different shopper types, and impulse buying shows people buy without any plan, while the model assumes rational decision-making. The model may be too general: it was developed for behaviours such as health, and may apply less well to consumer behaviour. Alternative models, such as the black box model and the consumer decision model, include more stages such as information search and evaluation of alternatives. Studies supporting the theory also usually rely on self-report intentions, which may be affected by social desirability.

Conclusion: I disagree with the statement. Planning and intending to buy make a purchase more likely, and the theory predicts behaviour reasonably well for brands like grape drink and toothpaste, but because of the intention-behaviour gap and situational factors, intention never guarantees that a consumer will definitely buy.

Psychology and health

11 The five-city project (Farquhar et al., 1985) was a community health promotion programme in California. Two treatment cities received a multi-media campaign (TV, radio, newspapers, education in schools and workplaces) about reducing

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cardiovascular risk, e.g. smoking, blood pressure and cholesterol, while other cities acted as controls. The treatment cities showed greater reductions in risk factors such as blood pressure and smoking.

There are reasons to agree. The project was designed for the USA, where poor heart health and obesity are major problems; other countries may have different health priorities, such as infectious disease. The USA has many cities of similar size, so treatment and control cities could be matched, which may not be possible elsewhere. It also relied on high exposure to TV and newspapers, which some countries lack. Cultural differences in diet, attitudes to authority and collectivism may mean the same messages are interpreted differently, so the results may be ethnocentric.

However, the word "never" is too strong. All countries need their inhabitants to improve their health to live longer, and the techniques of health promotion, such as providing information and fear arousal (Janis and Feshbach, 1953), are used everywhere. The project measured outcomes physiologically, e.g. blood pressure and cholesterol, which are objective and reliable, so the same measures can be taken on anyone anywhere and the results compared. There is evidence of generalisation: the North Karelia project in Finland also used a community-wide campaign to reduce heart disease risk factors with success, and school-based programmes such as the Food Dudes (Tapper et al., 2003), developed in the UK, have been used in other countries. Strategies can be adapted to local culture, e.g. using local media and language, while keeping the same principles.

Conclusion: I disagree. The exact campaign may not transfer directly, as cultures, media and health problems differ, but the principles of community-wide, multi-media promotion measured with objective physiological measures can generalise to other countries when adapted to local conditions.

Psychology and organisations

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12	Forsyth (2006) described how groups make errors because of the cognitive limitations of individual members. Sins of commission include belief perseverance (holding on to a belief after it is shown to be false) and sunk cost bias. Sins of omission include ignoring base rates, and sins of imprecision include relying on heuristics such as the availability heuristic. Janis (1971) described groupthink, where a cohesive group strives for agreement so strongly that it fails to consider alternatives, e.g. the Bay of Pigs invasion. There is some support for the statement. Individuals are sometimes limited in their understanding and bring biases such as belief perseverance into the group, so the group decision is only as good as the information processing of its members. Some people are poor at interacting in groups, have personalities that are less suited to group work, or have interpersonal conflicts with other members, which harms the decision. These are individual explanations. However, the word "always" is too strong, because groupthink shows that errors can come from the situation. Groupthink results from the group, not individual decision-making: symptoms such as the illusion of invulnerability, the illusion of unanimity, self-censorship, direct pressure on dissenters and self-appointed mindguards occur because members want to stay cohesive. Individuals may agree with the leader to impress the boss rather than question the decision, and raising questions may be avoided because conflict could harm group cohesiveness. Intelligent, capable individuals made the Bay of Pigs error, so it cannot be blamed only on their cognitive limits. Janis's strategies to avoid groupthink, such as an impartial leader, a devil's advocate and outside experts, change the situation, and they work, which supports a situational cause. This is the individual versus situational debate. Conclusion: I disagree. Individual cognitive limitations do cause some errors, but group factors such as cohesiveness and pressure to conform also cause errors

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through groupthink, and often the two interact, as groupthink stops the group correcting individual biases.

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