

Psychology
Higher level and Standard level
Paper 1

Thursday 5 November 2015 (afternoon)

2 hours

Instructions to candidates

- Do not turn over this examination paper until instructed to do so.
- Section A: answer all the questions.
- Section B: answer one question.
- The maximum mark for this examination paper is **[46 marks]**.

Section A

Answer **all** questions in this section. Marks will be awarded for focused answers demonstrating accurate knowledge and understanding of research.

Biological level of analysis

1. Describe **one** study related to localization of function in the brain. [8]

Cognitive level of analysis

2. Describe **one** ethical consideration related to **one** research study at the cognitive level of analysis. [8]

Sociocultural level of analysis

3. Outline how **one** principle that defines the sociocultural level of analysis has been demonstrated in **one** example of research (theory or study). [8]

Section B

Answer **one** question in this section. Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

4. Discuss **one or more** effects of the environment on **one or more** physiological processes. [22]
5. Discuss how **and** why **one** particular research method is used at the cognitive level of analysis. [22]
6. Discuss the role of **one** cultural dimension on human behaviour. [22]

Psychology
Higher level
Paper 3

Friday 6 November 2015 (morning)

1 hour

Instructions to candidates

- Do not turn over this examination paper until instructed to do so.
- Read the passage carefully and then answer all the questions.
- The maximum mark for this examination paper is **[30 marks]**.

The stimulus material below is based on a research article investigating immigration experiences of teenage female Afghan refugees.

The aim of this case study was to investigate the challenges faced by teenage females from Afghanistan moving to the West. The lead researcher of the study was an Afghan refugee herself. She had a similar experience in her late teenage years and is now a community support worker.

- 5 A purposive sample of fourteen teenage Afghan females who had left Afghanistan within the last five years was collected from the researcher's personal contacts. The lead researcher visited the participants one week before the interviews and informed participants of the questions. This was so that they could provide feedback about the questions they felt comfortable to answer. She also had informal discussions with them in the Afghan language in order to build rapport.
- 10 The participants gave their informed consent to participating in the study before the study began.

Semi-structured interviews were conducted. These were followed by a focus group interview a week later. All communication was conducted in Afghan. The interviews were audio recorded and transcribed into English by the researcher. The transcripts were analysed using inductive content analysis (thematic analysis).

- 15
- The results showed that participants had experienced several educational and social problems, such as problems caused by lack of English language skills and being bullied in school. On the other hand, they all valued education and wanted to continue school. The participants also expressed concerns that they had to play sport and receive sex education with male peers; both these things are considered taboo in Afghanistan. The girls had hopes for further education but some of them were afraid that they would not be allowed to continue going to school. Many parents wanted their daughter to marry at a young age. The experience of being caught between two cultures and disagreements with parents created a feeling that they did not completely belong to either community.
- 20
- 25 According to the researcher, there is limited research exploring the health and social issues of teenage female Afghan refugees. Local educators and social health workers have limited knowledge about the unique experiences of this group, which makes it difficult to respond to their needs appropriately. The researcher hoped that recommendations from the study could contribute to a better understanding of how to help young female refugees adapt to a new country.
- 30

[Source: Nida Iqbal, Andrew Joyce, Alana Russo, and Jaya Earnest, "Resettlement Experiences of Afghan Hazara Female Adolescents: A Case Study from Melbourne, Australia," *International Journal of Population Research*, vol. 2012, Article ID 868230, 9 pages, 2012. doi:10.1155/2012/868230]

Answer **all** of the following three questions, referring to the stimulus material in your answers. Marks will be awarded for demonstration of knowledge and understanding of **qualitative** research methodology.

1. Explain the use of semi-structured interviews and a focus group interview in this case study. [10]
2. Discuss **one or more** ethical considerations relevant to this case study. [10]
3. Explain the use of reflexivity in this case study. [10]

Markscheme

November 2015

Psychology

Higher level

Paper 3

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Paper 3 markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question. The response makes no direct reference to the stimulus material or relies too heavily on quotations from the text.
4 to 7	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question. The response makes limited use of the stimulus material.
8 to 10	The question is answered in a focused and effective manner and meets the demands of the command term. The answer is supported by appropriate and accurate knowledge and understanding of qualitative research methodology. The response demonstrates a critical understanding of qualitative research methodology applied to the stimulus material.

1. Explain the use of semi-structured interviews and a focus group interview in this case study. **[10]**

Refer to the paper 3 markbands when awarding marks.

The command term “explain” requires candidates to give a detailed account of the use of semi-structured interviews as well as the focus group interview in the case study, giving reasons for their use. Although explanation of the use of both semi-structured interviews and a focus group interview is required, it does not have to be evenly balanced to gain high marks.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

Semi-structured interviews (SSIs) use a combination of closed and open-ended questions. This gives the respondents the opportunity to give a subjective account of their own personal experiences as they see it. This could be particularly important in a case study that investigates refugees’ resettlement and the challenges faced by the adolescent Afghan females in this study.

One reason for the choice of SSIs to collect data at the start of this case study could be that the researcher aimed to explore how each adolescent girl experienced her situation. By starting with individual semi-structured interviews in the Afghan language, the researcher could establish rapport with the respondents. The combination of a few closed questions and open-ended questions gives flexibility and ensures that participants have the opportunity to talk freely about their feelings in relation to sensitive issues.

In this case study, the researchers combined the SSI with a focus group interview. The reason for doing that could be to give the adolescents an opportunity to discuss the sensitive issues between them but also to provide the researcher with more data.

Candidates may argue that the method of triangulation is often used in case studies in order to explore a problem in more depth. The focus group involves a facilitator and participants interact with each other as they would in real life. An advantage is that they can use their own language and they can discuss and respond to each other’s statements. This gives a special dynamic to the interview and generates rich data. Normally, a focus group interview is considered to be naturalistic because of its conversational nature. In the context of this study, the focus group also gave the researchers an opportunity to explore if participants could discuss the very sensitive issues with each other or if they chose not to disclose private information in front of the others. This information could be important in relation to establishment of peer groups.

If a candidate discusses only semi-structured interviews or only focus group interview(s), award up to a maximum of **[5 marks]**.

Candidates may evaluate the semi-structured and focus group interviews as part of their explanation. This is acceptable as long as the evaluation is used as part of the explanation.

2. Discuss **one or more** ethical considerations relevant to this case study. [10]

Refer to the paper 3 markbands when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review of ethical considerations in the case study. Conclusions should be supported by appropriate knowledge of ethical considerations in relation to this qualitative study.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

Relevant ethical considerations in this study include but are not limited to:

- Informed consent is important in all research but a particularly relevant factor in this study could be the age of the participants. Some of them are quite young and parental consent should be gained for minors – even though this is not mentioned in the stimulus material, it could be a relevant comment to make.
- The researcher took care not to violate ethics by giving the participants the questions in advance so that they would not be asked anything that they did not feel comfortable answering. This could be seen as part of the briefing process but also that the researcher respected the participants and accepted that they should not be harmed in any way by talking about things they found too sensitive.
- Anonymity/confidentiality are particularly important in a case study exploring personal and sensitive issues, especially because the girls have a cultural background where girls and women are not expected to have much education and should obey their parents. Candidates could discuss various reasons for confidentiality, for example that the girls’ experience of being caught between two cultures could perhaps result in more conflict with their parents if they knew how the girls felt. It would be relevant to say that anonymity could be ensured in the report by anonymizing the names of the participants as all the girls knew each other and probably came from a very small community. This would protect the girls so that their parents and other people from the Afghan community could not identify them.

Candidates may use anonymity and confidentiality interchangeably. This is acceptable.

Candidates may discuss one ethical consideration in order to demonstrate depth of knowledge, or may discuss a larger number of ethical considerations in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

Candidates may discuss ethical considerations that were taken in the study or ethical considerations that could have been taken. Both approaches are equally acceptable.

3. Explain the use of reflexivity in this case study. [10]

Refer to the paper 3 markbands when awarding marks.

The command term “explain” requires candidates to give a detailed account of why reflexivity was used in this case study and give reasons or causes for the use of reflexivity by referring to details of the study.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

Candidates could argue that in qualitative research, it is believed that the research process affects the researcher as well as the people being studied and it is argued that in qualitative research researcher bias could add to the richness of knowledge of a complex problem. Therefore the researcher could use reflexivity as a strategy to examine how the researcher’s own subjectivity contributes to the findings in this particular study. Such an approach acknowledges that the researcher may be biased towards the findings because she perceives and interprets data through her own lens (subjectivity) but this is taken as an extra perspective of the topic under investigation as is also the case in this study. There is no specific reference to “reflexivity” in the stimulus material but the question indicates that it was applied.

Reasons for applying reflexivity in this case study and how to apply reflexivity could include but are not limited to:

- To handle researcher bias: the lead researcher had the exact same experience as the participants and she now works as a social worker with Afghan refugee girls. Furthermore, she recruited the participants from her personal contacts (line 6). This could potentially bias the results unless reflexivity is applied. **Personal reflexivity** could therefore be relevant in this case study. A reflective journal could give an inside view of the researcher’s approach and thoughts during the research process. This would enable the researcher to examine her own values, experiences and beliefs, and how these could affect the research process, eg in terms of specific decisions such as the selection and wording of questions in the interviews. It could also involve thinking about how this particular research has affected the researcher personally and professionally. Reflecting on the research could also involve examining her relationship to the respondents, who share her own experiences and how this could affect responses to questions.
- To increase credibility/trustworthiness of the data: the researcher could ask participants or other researchers to check whether the way the study was conducted or the interpretation of the data is credible. Asking other researchers to check the research process (choice of participants, data collection, analysis and interpretation of data etc.) **Epistemological reflexivity** involves examining the way in which knowledge has been generated in the study, eg she could examine whether the focus of the study has limited what could possibly be found on the challenges faced by these Afghan adolescents; or if the design of the study and the analysis of data has biased the results. Reflections such as these encourage any qualitative researcher to think critically about the credibility of the findings.

Candidates may refer to personal reflexivity and epistemological reflexivity without using specific terminology and still be awarded marks across the full range.

Candidates may explain why reflexivity is relevant to the study by referring to details of the study and they may explain how reflexivity could be applied to the study. Both approaches are acceptable.

Psychology
Higher level and standard level
Paper 1

Tuesday 15 November 2016 (afternoon)

2 hours

Instructions to candidates

- Do not turn over this examination paper until instructed to do so.
- Section A: answer all the questions.
- Section B: answer one question.
- The maximum mark for this examination paper is **[46 marks]**.

Section A

Answer **all** questions in this section. Marks will be awarded for focused answers demonstrating accurate knowledge and understanding of research.

Biological level of analysis

1. Explain how **one** principle that defines the biological level of analysis has been demonstrated in **one** example of research (theory or study). [8]

Cognitive level of analysis

2. Describe how **one** biological factor may affect **one** cognitive process, with reference to **one** research study. [8]

Sociocultural level of analysis

3. Describe social learning theory with reference to **one** relevant study. [8]

Section B

Answer **one** question in this section. Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

4. To what extent does genetic inheritance influence behaviour? [22]
5. Evaluate **one** theory of how emotion may affect **one** cognitive process. [22]
6. Discuss why **two** particular research methods are used to investigate behaviour at the sociocultural level of analysis. [22]

Markscheme

November 2016

Psychology

Higher level and standard level

Paper 1

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Section A

Biological level of analysis

1. Explain how **one** principle that defines the biological level of analysis has been demonstrated in **one** example of research (theory or study). [8]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “explain” requires candidates to give a detailed account of an appropriate principle and show how this principle is clearly demonstrated in a study or theory relevant to the biological level of analysis.

Acceptable principles may include, but are not limited to:

- patterns of behaviour may be inherited
- animal research may inform our understanding of human behaviour
- there are biological correlates to human behaviour.

Responses should focus on the link between the principle and the theory or study – for example, a specific example of what animal research teaches us about human behaviour.

If a candidate explains more than one principle in relation to one or more theories or studies, credit should be given only to the first principle explained in the first theory or study used.

If a relevant principle and a relevant theory or study are provided, but no explicit link is made between them, a maximum of **[6]** should be awarded.

If a candidate explains a principle making no link to an example of research at the biological level of analysis, up to a maximum of **[4]** should be awarded.

If a candidate makes reference to a study or theory at the biological level of analysis but no relevant principle is stated/identified, up to a maximum of **[3]** should be awarded.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Cognitive level of analysis

2. Describe how **one** biological factor may affect **one** cognitive process, with reference to **one** research study. [8]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “describe” requires candidates to give a detailed account of how one biological factor affects one cognitive process.

Possible cognitive processes include, but are not limited to: memory, language acquisition, problem solving, attention, decision-making and perception.

Research studies may include, but are not limited to:

- Broca’s (1861) and Wernicke’s (1874) studies of localization of function investigating language production and language understanding
- Martinez and Kesner’s (1991) investigation of neurotransmission and memory
- Milner *et al.*’s (1968) and Blakemore’s (1988) case studies of HM and Clive Wearing, investigating the role of the hippocampus on memory
- Bruce and Young’s (1986) investigations into specific brain areas and face recognition
- biological changes caused by Alzheimer’s disease leading to dementia (Lorenzo *et al.* 2000; Kensinger and Corkin, 2003).

The focus of the response should be on the description of how one biological factor affects one cognitive process, not only on the description of the study.

If a candidate refers to more than one study, credit should be given only to the first study.

If a candidate refers to more than one biological factor, credit should be given only to the description of the first biological factor.

If a candidate refers to more than one cognitive process, credit should be given only to the description of the first cognitive process.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Sociocultural level of analysis

3. Describe social learning theory with reference to **one** relevant study. [8]

Refer to the paper 1 section A markbands below when awarding marks.

The learning outcome “describe” requires candidates to give a detailed account of social learning theory in relation to one relevant study.

The main aspects of social learning theory may include:

- imitation of models
- observational learning
- the role of attention, retention, motivation and reproduction
- the role of vicarious reinforcement and/or punishment.

Responses may refer to studies such as, but not limited to:

- Bandura *et al.*’s studies on aggression
- Totten (2003) observational learning of violent behaviour towards girlfriends
- Sprafkin *et al.* (1975) on children’s prosocial behaviour and television model
- Fagot *et al.* (1992) on parental influences on gender development.

If a candidate refers to more than one study, credit should be given only to the first study.

If a candidate only describes an appropriate study without describing the theory, up to a maximum of [3] should be awarded.

If a candidate describes social learning theory without making reference to a study, up to a maximum of [4] should be awarded.

Section A markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4 to 6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7 to 8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Section B assessment criteria

A — Knowledge and comprehension

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer demonstrates limited knowledge and understanding that is of marginal relevance to the question. Little or no psychological research is used in the response.
4 to 6	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
7 to 9	The answer demonstrates detailed, accurate knowledge and understanding relevant to the question, and uses relevant psychological research effectively in support of the response.

B — Evidence of critical thinking: application, analysis, synthesis, evaluation

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
4 to 6	The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.
7 to 9	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

C — Organization

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 2	The answer is organized or focused on the question. However, this is not sustained throughout the response.
3 to 4	The answer is well organized, well developed and focused on the question.

Section B

4. To what extent does genetic inheritance influence behaviour? [22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “to what extent” requires candidates to consider the merits of the principle that genetic inheritance influences behaviour.

Candidates may choose a single behaviour (such as intelligence, depression or obesity), or they may choose a number of behaviours and take a more holistic approach.

In order to address the command term “to what extent”, candidates may address:

- the interaction of genes with the environment
- strengths and limitations of genetic research
- alternative explanations – i.e. cognitive and sociocultural explanations.

Examples of relevant studies include, but are not limited to:

- Heston’s (1966), Gottesman’s (1991) and Kety *et al.*’s (1975) studies examining the genetic inheritance of schizophrenia
- Kendler *et al.* (2006), Caspi *et al.* (2003) and Nurnberger and Gershon (1982) on the possible genetic factors involved in depression
- Garn *et al.* (1981) and Stunkard *et al.* (1990) examining obesity and genetic factors
- Bouchard *et al.* (1990), Scarr and Weinberg (1977), and Plomin and Petrill (1977) examining IQ and genetic inheritance.

Explanations of the role of genetic inheritance may refer to concordance rates, specific research regarding the properties of specific genes, or findings from twin and adoption studies. If a candidate makes reference to research from evolutionary psychology, the focus of the response must be on how genetic inheritance influences the behaviour.

5. Evaluate **one** theory of how emotion may affect **one** cognitive process. [22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing the strengths and limitations of one theory demonstrating the influence of emotion on one cognitive process. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Responses may focus on any cognitive process that is affected by emotion, such as perception, attention, memory, problem solving or decision-making.

Examples of theories include, but are not limited to:

- Brown and Kulik’s flashbulb memory theory
- Bower’s theory of state-dependent cues
- Frank’s emotional precommitment model of decision making
- Loftus’s theory of weapon focus
- McGinnies’s perceptual defence research.

Evaluation of the selected theory includes, but is not limited to:

- degree of empirical support
- methodological considerations
- cultural and gender considerations
- contrary findings or explanations
- accuracy and clarity of the concepts
- application and/or usefulness of the empirical findings.

The focus of the response should be on the evaluation of the theory of how emotion may affect one cognitive process and not just on an evaluation of the studies. Responses that only evaluate studies and not the theory itself, should be awarded up to a maximum of [6] for criterion B, critical thinking.

If a candidate evaluates more than one theory, credit should be given only to the first evaluation, unless the other theory or theories are clearly used to evaluate the main theory; for example, used to illustrate the strengths and/or limitations of the main theory.

If a candidate discusses only strengths or only limitations, the response should be awarded up to a maximum of [5] for criterion B, critical thinking, and up to a maximum of [2] for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.

6. Discuss why **two** particular research methods are used to investigate behaviour at the sociocultural level of analysis. [22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “discuss” requires candidates to offer a considered and balanced review of why two particular research methods are used at the sociocultural level of analysis.

Research methods may include, but are not limited to, two of the following:

- case studies
- correlational studies
- experiments (laboratory, field or natural/quasi)
- interviews
- observations
- surveys/questionnaires

Candidates may address the different ways in which a research method is done – for example, a covert or naturalistic observation – but the focus should be on the nature of the research method itself.

Discussion about why the methods are used might refer to the appropriateness of the methods for the aim, issues of validity and reliability, sample choice and size, ease and cost of the procedure and the generalizability of findings. Candidates may address the strengths of the methods as well as how they reflect the principles of the sociocultural level of analysis, that is, candidates could make clear how the selected research methods underpin one or more principles of the level of analysis.

Examples of research studies could include, but are not limited to:

- Festinger’s (1956) covert observation studying cult behaviour
- Bandura’s (1961, 1963, 1965) laboratory experiments investigating social learning theory
- Hofstede’s (1973) use of questionnaires to study cultural differences in the workplace
- Sherif’s (1954) “Robber’s Cave” field experiment investigating the realistic conflict theory.

If a candidate discusses more than two research methods, credit should be given only to the first two discussions. Candidates may address other research methods and be awarded marks for these as long as they are clearly used to discuss one or both of the two main research methods in the response.

If a candidate discusses only one research method, the response should be awarded up to a maximum of **[5]** for criterion A, knowledge and comprehension, up to a maximum of **[4]** for criterion B, critical thinking and up to a maximum of **[2]** for criterion C, organization.

If a candidate discusses two types of experiments (e.g. field and laboratory), interviews (e.g. semi-structured and focus groups) or observations (e.g. covert and participant), this is considered a single research method.

Psychology Higher level Paper 2

Wednesday 16 November 2016 (afternoon)

2 hours

Instructions to candidates

- Do not open this examination paper until instructed to do so.
- Answer two questions, each from a different option. Each question is worth **[22 marks]**.
- The maximum mark for this examination paper is **[44 marks]**.

Answer **two** questions, each from a different option.

Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

Abnormal psychology

1. To what extent do sociocultural factors influence abnormal behaviour?
2. Discuss concepts of normality and abnormality.
3. Evaluate the use of an eclectic approach to treatment.

Developmental psychology

4. Discuss **one** example of psychological research (theory or study) into adolescence.
5. To what extent does attachment in childhood play a role in the formation of relationships later in life?
6. Analyse cultural variation in gender roles.

Health psychology

7. To what extent do cognitive factors influence health-related behaviour (stress, substance abuse, addictive behaviour, overeating and/or obesity)?
8. Evaluate **one or more** treatments for obesity.
9. Evaluate **one or more** models and/or theories of health promotion.

Psychology of human relationships

10. Evaluate psychological research relevant to strategies for reducing violence.
11. Discuss **one or more** biological origins of attraction.
12. Explain why relationships may change or end.

Sport psychology

13. Evaluate **two or more** theories of motivation in sport.
 14. Discuss the use of **two or more** techniques for skill development in sport.
 15. Evaluate **one or more** examples of psychological research relevant to sport psychology.
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Psychology
Higher level
Paper 3

Wednesday 16 November 2016 (afternoon)

1 hour

Instructions to candidates

- Do not turn over this examination paper until instructed to do so.
- Read the passage carefully and then answer all the questions.
- The maximum mark for this examination paper is **[30 marks]**.

The stimulus material below is based on a research article that describes some of the positive experiences of teenage motherhood that can occur in spite of challenges to the mothers' future plans.

In the United Kingdom, there is a general concern about teenage pregnancy because it is often associated with negative outcomes such as poverty, interrupted education and early entrance into the welfare system.

5 The aim of this study was to investigate how teenage mothers experienced motherhood and how this had influenced their expectations of the future. The two female researchers already worked with teenage mothers in a city in the United Kingdom before the study. According to them, previous research has primarily focused on the disadvantages of early motherhood, and not on how young mothers can overcome obstacles, even gaining psychological benefit from having a child.

10 Young mothers were identified based on specific criteria (for example, the child was born before the mother was twenty and was living with her). The mothers were found through a patient database of family doctors. Seventeen mothers were selected initially and nine agreed to be part of this purposive sample. The local research ethics committee gave ethical approval for the study. The participants were all informed about the study and their rights. They all gave consent to participate. The names of the participants were changed in the final report.

The researchers carried out semi-structured interviews in the participants' homes. The interviews were audio-recorded and later transcribed verbatim to allow for inductive content analysis.

20 The results showed that at this point in their lives the young mothers were very positive about their experience of motherhood in spite of the challenges. Most of them had felt an immediate bond with the baby once it was born. Some said it was the right decision to keep the baby and that being a mother had made them "grow up". Some said that having responsibility for the baby made them more ambitious and determined to have a career although the pregnancy had for a time forced them to stop their education or work.

25 The researchers concluded that early motherhood does not necessarily have only negative outcomes. It may also be the turning point to maturity and development of a career, especially if young mothers are supported by family, health professionals and society.

[Source: Adapted from Clare J. Seamark and Pamela Lings, "Positive experiences of teenage motherhood: a qualitative study." *British Journal of General Practice*, 2004, 54, 813–818.]

Answer **all** of the following three questions, referring to the stimulus material in your answers. Marks will be awarded for demonstration of knowledge and understanding of **qualitative** research methodology.

1. Explain **one** effect of participant expectations **and one** effect of researcher bias that could be relevant to this study. [10]
2. Evaluate the purposive sampling technique used in this study. [10]
3. Explain **two or more** ethical considerations relevant to this study. [10]

Markscheme

November 2016

Psychology

Higher level

Paper 3

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Paper 3 markbands

Marks	Level descriptor
0	The answer does not reach a standard described by the descriptors below.
1 to 3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question. The response makes no direct reference to the stimulus material or relies too heavily on quotations from the text.
4 to 7	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question. The response makes limited use of the stimulus material.
8 to 10	The question is answered in a focused and effective manner and meets the demands of the command term. The answer is supported by appropriate and accurate knowledge and understanding of qualitative research methodology. The response demonstrates a critical understanding of qualitative research methodology applied to the stimulus material.

1. Explain **one** effect of participant expectations **and one** effect of researcher bias that could be relevant to this study. **[10]**

Refer to the paper 3 markbands when awarding marks.

The command term “explain” requires candidates to give a detailed account, including reasons and causes, of one effect of participant expectations and one effect of researcher bias that could be relevant to this study.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

Participant expectations can be described as participant factors that could influence the outcome of the research.

Effects of participants’ expectations in this study could include, but are not limited to:

- Participants’ ideas of the study could lead them to give answers they think are in line with what they think the researchers want, which would bias the data. This could be particularly true if there is a good rapport between the interviewer and the participants. In this study, the participants could perhaps assume that the researcher is more interested in the positive aspects of teenage motherhood than the negative and therefore adjust their answers in that direction. However, it is very difficult to check if this happens.
- Social desirability effects could be a factor in a socially sensitive study like the one in the stimulus material: participants may behave in ways that they think will give them social approval. In this study it could be that the young mothers answer the researchers’ questions in ways that make them appear in a better light because they don’t want to admit to undesirable traits such as not being able to live up to their role as a mother. They could for example say that they feel happier than they actually do in order to avoid negative reactions. If this is the case the results would be biased.

Effects of researcher bias can be described as researcher factors such as the researchers’ beliefs or values that could potentially bias the research process. For example, the researchers argue that previous research on teenage mothers has mainly focused on the negative consequences of early motherhood (lines 6–9 “According to them, previous research has primarily focused...”).

Effects of researcher bias in this study could include, but are not limited to:

- Collection of data (interviewing): the researchers conducted the interviews themselves and they may have influenced the outcome of the interview by nodding and smiling more when participants respond as expected and smiling less when they give less expected answers.
- Data analysis: the researchers’ beliefs and expectations of a more positive way of experiencing early motherhood could influence the way the data is analyzed. This could be dealt with by having another researcher check the analysis (credibility check).

If a candidate explains more than one effect of participant expectations or more than one effect of researcher bias that could be relevant to the study, credit should be given only to the first explanation.

If a candidate addresses only participant expectations or only researcher bias apply the markbands up to a maximum of **[5]**.

2. Evaluate the purposive sampling technique used in this study.

[10]

Refer to the paper 3 markbands when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of the purposive sampling technique used in the study. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

The purposive sample is constructed to serve a specific need or purpose. In this study, the researchers chose the participants because they met salient characteristics that are relevant to the research study (selection criteria). For example, in this study, the mother should have given birth to the child before she was twenty and the child should live with her.

Strengths of the purposive sampling method could include, but are not limited to:

- Because the participants accurately represent the topic under investigation they could provide rich data.
- It is relatively easy to select a sample once the selection criteria are clear. In this study, seventeen potential participants were found through a database but only nine of them agreed to be interviewed. It is a small sample but the participants all fit the selection criteria and eventually, more participants could be recruited in the same way or perhaps, through snowballing.

Limitations of the purposive sampling method could include, but are not limited to:

- Sampling may be biased. For example, in this study only nine out of seventeen originally found to match the selection criteria agreed to participate. It could be that they were the ones who were particularly positive about their experience as a young mother.
- The sample is not representative in a statistical sense because it is based on specific criteria so it is difficult to generalize. However, in this qualitative study representational or theoretical generalization could be considered.

Candidates may refer to other sampling methods but this should only be credited if it is done as part of their evaluation of the purposive sampling method used in this study.

Responses that refer to only strengths or only limitations of the purposive sampling method used in this study should be awarded up to a maximum of [5].

3. Explain **two or more** ethical considerations relevant to this study.

[10]

Refer to the paper 3 markbands when awarding marks.

The command term “explain” requires candidates to give a detailed account, including reasons or causes, of two or more ethical considerations that could be relevant to the research study in the stimulus material.

Responses that use the term “experiment” as a generic term for “study” should not be penalized.

Relevant ethical considerations in this study include, but are not limited to:

- The researchers informed the participants about the study and their rights before the participants gave their consent.
- Anonymity (and confidentiality) is particularly important in a qualitative study like this one exploring personal and sensitive issues around teenage pregnancy and motherhood. The researchers made sure that the names of the participants were anonymous by changing them in the final report (line 15). The stimulus material mentions that there are negative expectations surrounding teenage pregnancy so the young mothers could feel stigmatized so anonymity is very important – especially as the research is conducted in the city where the young mothers live.
- The researchers also presented their project to a local research ethics committee in order to be sure that they would not violate ethical rules.
- Protection of participants – the interviews were conducted in the participants’ homes. This could be in order to make them feel more at ease discussing this sensitive topic.

Candidates may refer to ethical considerations taken by the researchers in the study in the stimulus material and/or considerations that could have been taken. Both approaches are equally acceptable.

Candidates may explain a small number of ethical considerations in order to demonstrate depth of knowledge, or may explain a larger number of ethical considerations in order to demonstrate breadth of knowledge. Both approaches are equally acceptable.

If a candidate explains only one ethical consideration, apply the markbands up to a maximum of [5].

Psychology
Higher level and standard level
Paper 1

Thursday 16 November 2017 (afternoon)

2 hours

Instructions to candidates

- Do not turn over this examination paper until instructed to do so.
- Section A: answer all the questions.
- Section B: answer one question.
- The maximum mark for this examination paper is **[46 marks]**.

Section A

Answer **all** questions in this section. Marks will be awarded for focused answers demonstrating accurate knowledge and understanding of research.

Biological level of analysis

1. Describe **one** study related to localization of function in the brain. [8]

Cognitive level of analysis

2. Explain how **one** principle that defines the cognitive level of analysis may be demonstrated in **one** example of research (theory or study). [8]

Sociocultural level of analysis

3. Describe **one** ethical consideration related to **one** study at the sociocultural level of analysis. [8]

Section B

Answer **one** question in this section. Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

4. Examine **one** interaction between cognition and physiology in terms of behaviour. [22]
5. Evaluate schema theory. [22]
6. Discuss **one or more** examples of psychological research (theories or studies) on conformity to group norms. [22]
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Markscheme

November 2017

Psychology

Higher and standard level

Paper 1

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Section A

Biological level of analysis

1. Describe **one** study related to localization of function in the brain. **[8]**

Refer to the paper 1 section A markbands below when awarding marks.

The command term “describe” requires candidates to give a detailed account of one study related to localization of function in the brain.

Candidates should clearly identify the specific part of the brain and its function, and use a relevant study to demonstrate localization of function.

Responses should describe the aim, procedure, findings and/or conclusions of the study.

Examples of localization include, but are not limited to:

- localization of speech production/understanding
- the role of the hippocampus and memory
- the role of the amygdala in aggression
- the role of the prefrontal lobe in decision-making.

If Sperry and Gazzaniga’s study of split-brain patients is described, it is important that the focus of the response is on localization of function.

If a candidate describes more than one study, credit should be given only to the first description.

If a candidate addresses localization of function without making reference to a relevant study, apply the markbands up to a maximum of **[3]**.

If a candidate describes a study that is not relevant to localization of function, **[0]** should be awarded.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4–6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7–8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Cognitive level of analysis

2. Explain how **one** principle that defines the cognitive level of analysis may be demonstrated in **one** example of research (theory or study). **[8]**

Refer to the paper 1 section A markbands on the next page when awarding marks.

The command term “explain” requires candidates to give a detailed account of how one principle that defines the cognitive level of analysis is clearly demonstrated in one relevant theory or study.

Acceptable principles include, but are not limited to:

- cognitive processes can be scientifically investigated
- cognitive processes are important mediators between stimuli and responses
- mental representations guide behaviour
- cognitive processing can be compared to computer function

After outlining the principle and giving a brief summary of one study or theory, candidates should make an explicit link between the research and the principle. If a relevant principle and research are identified but are not explicitly linked, then apply the markbands up to a maximum of **[6]**.

If a candidate explains a principle without making reference to research, apply the markbands up to a maximum of **[4]**.

If a candidate only describes a study or theory relevant to the cognitive level of analysis without addressing a principle at the cognitive level of analysis, apply the markbands up to a maximum of **[3]**.

If a candidate explains more than one principle and/or uses more than one example of research, credit should be given only to the first explanation of the first principle and to the first example demonstrating that principle.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1-3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4-6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7-8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Sociocultural level of analysis

3. Describe **one** ethical consideration related to **one** study at the sociocultural level of analysis. [8]

Refer to the paper 1 section A markbands below when awarding marks.

The command term “describe” requires candidates to give a detailed account of one ethical consideration related to one study at the sociocultural level of analysis.

The ethical consideration may be positive (what guidelines were followed) or negative (what guidelines were not followed).

Ethical considerations which may be addressed include, but are not limited to:

- deception
- protection from physical or mental harm
- briefing and debriefing
- right to withdraw from a study
- informed consent
- anonymity/confidentiality.

Responses should make a clear link between the study at the sociocultural level of analysis and the ethical consideration. If there is no explicit link between the study and the ethical consideration, award up to a maximum of [6].

If a candidate describes one ethical consideration without making reference to one research study from the sociocultural level of analysis, the response should be awarded up to a maximum of [4].

If a candidate describes a study from the sociocultural level of analysis but one ethical consideration is not addressed, up to a maximum of [3] should be awarded.

If a candidate describes more than one ethical consideration or addresses more than one study, credit should be given only to the first ethical consideration or the first study.

Section A markbands

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1-3	There is an attempt to answer the question, but knowledge and understanding is limited, often inaccurate, or of marginal relevance to the question.
4-6	The question is partially answered. Knowledge and understanding is accurate but limited. Either the command term is not effectively addressed or the response is not sufficiently explicit in answering the question.
7-8	The question is answered in a focused and effective manner and meets the demands of the command term. The response is supported by appropriate and accurate knowledge and understanding of research.

Section B assessment criteria

A — Knowledge and comprehension

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	The answer demonstrates limited knowledge and understanding that is of marginal relevance to the question. Little or no psychological research is used in the response.
4–6	The answer demonstrates limited knowledge and understanding relevant to the question or uses relevant psychological research to limited effect in the response.
7–9	The answer demonstrates detailed, accurate knowledge and understanding relevant to the question, and uses relevant psychological research effectively in support of the response.

B — Evidence of critical thinking: application, analysis, synthesis, evaluation

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–3	The answer goes beyond description but evidence of critical thinking is not linked to the requirements of the question.
4–6	The answer offers appropriate but limited evidence of critical thinking or offers evidence of critical thinking that is only implicitly linked to the requirements of the question.
7–9	The answer integrates relevant and explicit evidence of critical thinking in response to the question.

C — Organization

Marks	Level descriptor
0	The work does not reach a standard described by the descriptors below.
1–2	The answer is organized or focused on the question. However, this is not sustained throughout the response.
3–4	The answer is well organized, well developed and focused on the question.

Section B

4. Examine **one** interaction between cognition and physiology in terms of behaviour. [22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “examine” requires candidates to consider an argument or concept in a way that uncovers the assumptions and interrelationships between cognition and physiology in terms of behaviour.

In examining the interaction, examples may be either uni-directional (that is, one factor influences the other factor) or bi-directional (that is, looking at the true interdependence of both factors), but candidates are not required to make the distinction. The focus of the response, however, must be on the interaction between the cognitive and physiological factors.

Uni-directional interactions include, but are not limited to:

- the role of acetylcholine or beta-amyloid proteins in Alzheimer’s disease (eg Lorenzo *et al.* 2000)
- the effect of meditation on physiological processes (for example, Davidson, 2004; Luders *et al.* 2009)
- the role of the hippocampus in memory (for example, Maguire *et al.* 2000; Milner, 1957).

Bi-directional interactions include, but are not limited to:

- models of emotions (for example, LeDoux’s The Emotional Brain model, Schachter & Singer’s two-factor theory)
- Ramachandran & Hirstein (1998) on perception and pain in phantom limb syndrome
- stress and immune function (for example, Kiecolt-Glaser *et al.* 1984)
- cognitive appraisal and biological reactions (for example, Lazarus and Folkman, 1975; Speisman, 1964).

The examination of the interaction may include, but is not limited to:

- methodological considerations
- the relevance of animal studies
- the issue of reductionism
- the role of information processing in behaviour
- supporting and/or contradicting evidence

If a candidate examines more than one interaction between cognition and physiology in terms of behaviour, credit should be given only to the first interaction.

5. Evaluate schema theory.

[22]

Refer to the paper 1 section B assessment criteria when awarding marks.

The command term “evaluate” requires candidates to make an appraisal by weighing up the strengths and limitations of schema theory. Although a discussion of both strengths and limitations is required, it does not have to be evenly balanced to gain high marks.

Research may include, but is not limited to:

- Bartlett’s (1932) seminal study “War of the Ghosts”
- Loftus and Palmer (1974) on schema processing as a consequence of leading questions
- Anderson and Pichert’s (1978) study on the effect of schema processing on memory encoding and retrieval
- Wynn and Logie’s (1998) study using real-life experiences in schema processing
- Brewer and Treyen’s (1981) “office schema” study
- Piaget’s studies on the reorganization of schema during child development
- studies on gender schemas (for example, Martin *et al.*, 1995; Bee, 1999).

Evaluation of the theory may include, but is not limited to:

- the degree of empirical support
- methodological considerations of research used to support the theory
- application to real life (for example, eye witness testimony, stereotypes)
- predictive value (for example, in research studies on stereotyping)
- if the theory has relevance for understanding cognition and/or behaviour (for example, gender or cultural roles)
- Cohen’s (1993) criticism of schema theory regarding the vagueness of the concept.

If a candidate addresses only strengths or only limitations, the response should be awarded up to a maximum of [5] for criterion B, critical thinking, and up to a maximum of [2] for criterion C, organization. Up to full marks may be awarded for criterion A, knowledge and comprehension.

6. Discuss **one or more** examples of psychological research (theories or studies) on conformity to group norms.

[22]

The command term “discuss” requires candidates to offer a considered review of one or more examples of psychological research (theories or studies) on conformity.

Theories may include, but are not limited to:

- informational/normative social influence theory
- social comparison theory
- bystander effect
- groupthink

Studies may include, but are not limited to:

- Asch (1951, 1952, 1956) testing conformity under non-ambiguous conditions
- Sherif (1935) testing conformity with autokinetic effect illusion
- Crutchfield (1955) on the influence of intellectual competence and personality
- Moscovici *et al.* (1969, 1976, 1985) on minority influence
- Berry (1967) on the role of cultural dimensions
- Kagitcibasi (1984) on cultural norms and conformity
- Bond and Smith (1996) on changes over time and cross-cultural differences.

Discussion may include, but is not limited to:

- methodological, cultural, ethical and gender considerations
- contrary explanations and/or findings
- application of the theory and/or empirical findings.

If research addressing obedience, rather than conformity, is discussed, no marks should be awarded for this discussion.

Responses that focus on one example of research must include other theories and/or studies in the discussion in order to be awarded marks in the top markband for criterion A.

Psychology
Higher level
Paper 2

Friday 17 November 2017 (morning)

2 hours

Instructions to candidates

- Do not open this examination paper until instructed to do so.
- Answer two questions, each from a different option. Each question is worth **[22 marks]**.
- The maximum mark for this examination paper is **[44 marks]**.

Answer **two** questions, each from a different option.

Marks will be awarded for demonstration of knowledge and understanding (which requires the use of relevant psychological research), evidence of critical thinking (for example, application, analysis, synthesis, evaluation), and organization of answers.

Abnormal psychology

1. Discuss the relationship between etiology and therapeutic approach(es) in relation to **one** disorder.
2. Discuss cultural variations in the **prevalence** of psychological disorders.
3. Discuss **two or more** ethical considerations in diagnosis.

Developmental psychology

4. To what extent do social and/or environmental variables affect cognitive development?
5. Discuss **two** strategies to build resilience.
6. Contrast **two** examples of psychological research (theories or studies) relevant to developmental psychology.

Health psychology

7. Discuss social and/or psychological aspects of stress.
8. Discuss the effectiveness of **one or more** health promotion strategies.
9. Evaluate **one or more** prevention strategies for obesity.

Psychology of human relationships

10. To what extent do biological factors influence human relationships?
11. Discuss **two or more** factors influencing bystanderism.
12. Evaluate **one or more** sociocultural explanations of the origins of violence.

Sport psychology

13. Explain the role of goal-setting in the motivation of individuals engaged in sport.
 14. Discuss **two or more** effects of drug use in sport.
 15. Discuss athlete response to chronic injury.
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