7.5 Peer Review and the Reporting of Psychological Research

AQA 7182 · about 55 minutes · Write-in edition

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions.

1 Define the process of peer review as it is used before psychological research is published in an academic journal. Name the actors involved and the main purpose.

(Total for Question 1 is 2 marks)

2 Briefly state one economic implication of psychological research for society, for example how evidence-based interventions can affect public spending or productivity. Give a concise example.

(Total for Question 2 is 3 marks)

3 State two typical decisions a journal editor can make after receiving peer reviewers' reports on a psychology manuscript.

(Total for Question 3 is 2 marks)

4 Outline one strength of using anonymous peer review, where reviewers' identities are hidden from authors, in the publication of psychological research.

(Total for Question 4 is 3 marks)

5 Outline one limitation of the peer review process that can contribute to publication bias in psychological journals.

(Total for Question 5 is 2 marks)

6 List the standard sections of a scientific report for a psychological experiment, in the order they normally appear in a journal article. Give the section names only.

(Total for Question 6 is 6 marks)

7 For the 'Abstract' section of a psychology research report, outline what must be included so a reader understands the study at a glance. Mention aim, method, key results and conclusion.

(Total for Question 7 is 3 marks)

8 For the 'Method' section of a psychology research report, outline what must be reported so the study is reproducible. Mention participants, materials/apparatus and procedure.

(Total for Question 8 is 3 marks)

9 For the 'Results' section of a psychology research report, outline what should be presented and how authors should report statistical findings in a clear way.

(Total for Question 9 is 3 marks)

10 For the 'Discussion' section of a psychology research report, outline its three main purposes: interpretation, evaluation and implications. Give one sentence on each purpose.

(Total for Question 10 is 4 marks)

11 Identify and explain two limitations of peer review that relate to the quality and reliability of published psychological research.

(Total for Question 11 is 4 marks)

12 Evaluate the peer review process used to validate psychological research before publication. In your answer consider strengths, limitations and possible ways to improve the system. Refer to anonymity, methodological checking, reviewer bias, publication bias and time delays.

(Total for Question 12 is 8 marks)

Mark scheme · 7.5 Peer Review and the Reporting of Psychological Research

Question 1

a system in which independent experts in the same field evaluate a submitted manuscript before publication oe	**B1**
to check methodological soundness, clarity, ethical handling and suitability for the journal oe	**B1**

Answer: Peer review is a system where independent experts in the same field examine a submitted manuscript before publication to check its methodological soundness, clarity, ethical handling and suitability for the journal.

Question 2

states an economic implication, e.g. evidence-based therapies can reduce long-term healthcare costs oe	**M1**
gives an example, e.g. effective CBT for depression can reduce sick leave and improve workplace productivity oe	**A1**
explains briefly why this matters for public spending or employer costs oe	**A1**

Answer: Evidence-based therapies can reduce long-term healthcare costs; for example, effective CBT for depression can reduce sick leave and increase workplace productivity, lowering costs to employers and the NHS.

Question 3

accept the manuscript for publication, possibly with minor edits oe	**B1**
reject the manuscript, or invite major revisions and resubmission oe	**B1**

Answer: The editor can accept the manuscript for publication (sometimes requesting minor edits), or reject it or invite major revisions and resubmission.

Question 4

identifies a strength, e.g. reduces reviewers' fear of repercussions for critical comments oe	**M1**
explains this allows more honest, critical feedback which can expose methodological flaws oe	**A1**
links this to improving the quality and reliability of published research oe	**A1**

Answer: Anonymity reduces reviewers' fear of repercussions so they can give more honest, critical feedback; this helps expose methodological flaws and improves the quality and reliability of published research.

Question 5

identifies limitation: reviewers and editors tend to favour novel or statistically significant findings oe	**B1**
explains that this leads to publication bias because null results and replications are less likely to be published oe	**B1**

Answer: Reviewers and editors often favour novel or statistically significant results; this causes publication bias because null findings and replications are less likely to be accepted for publication.

Question 6

Abstract oe	**B1**
Introduction oe	**B1**
Method oe	**B1**
Results oe	**B1**
Discussion oe	**B1**
References oe	**B1**

Answer: Abstract; Introduction; Method; Results; Discussion; References.

Question 7

states the abstract summarises the aim and key background/context oe	**M1**
states it includes brief method details, such as participants and design, and the main results oe	**A1**
states it gives the overall conclusion or implication in a concise paragraph oe	**A1**

Answer: The abstract summarises the aim and key context, gives brief method details (participants and design), reports the main results and states the overall conclusion or implication, all concisely.

Question 8

states participant details should be given: sample size, selection method, relevant demographics oe	**M1**
states materials/apparatus or measures must be described or referenced so others can use the same tools oe	**A1**
states the procedure must be described step by step so the study can be replicated oe	**A1**

Answer: The Method must give participant details (sample size, selection, demographics), describe materials, apparatus and measures, and set out the procedure step by step so the study can be replicated.

Question 9

states results should report descriptive statistics and any inferential statistics used oe	**M1**
states results can include tables or figures to summarise data, with clear labels and legends oe	**A1**
states statistical results must include test values, degrees of freedom where relevant, p values and effect sizes where appropriate oe	**A1**

Answer: The Results should present descriptive and inferential statistics, include labelled tables or figures, and report test statistics, degrees of freedom where relevant, p values and effect sizes as appropriate.

Question 10

interpretation: explains what the results mean in relation to the study's aims and hypotheses oe	**B1**
evaluation: discusses strengths and limitations of the method and results, including validity and reliability oe	**B1**
implications: describes theoretical and practical implications, and suggests directions for future research oe	**B1**
may mention ethical issues and limitations in generalisability oe	**B1**

Answer: Interpretation: explain the results in relation to the aims and hypotheses. Evaluation: discuss strengths and limitations, including validity and reliability. Implications: outline theoretical and practical implications, suggest future research, and note ethical or generalisability limits.

Question 11

identifies limitation 1: reviewer bias or conflicts of interest oe	**M1**
explains how bias can lead to unfair negative reviews or favour established views, reducing diversity of published findings oe	**A1**
identifies limitation 2: time delay and inconsistent reviewer quality oe	**M1**
explains that long review times slow dissemination and inconsistent reviewer expertise can allow poor studies to be published or good studies to be delayed oe	**A1**

Answer: One limitation is reviewer bias or conflicts of interest, which can produce unfair rejections or favour established theories and reduce the diversity of published findings. A second limitation is the time delay and inconsistent reviewer quality, where long peer-review timelines slow dissemination and variability in reviewers' expertise can allow poor studies through or delay valid work.

Question 12

Level 4 Detailed and accurate knowledge of the peer review process and its role in publication. Evaluation is thorough and balanced, discussing multiple strengths and limitations with justification and specific examples. Suggestions for improvement are relevant and evaluated. Specialist terms are used appropriately and the response is well organised.	**7-8**
Level 3 Good knowledge of peer review and reasonable evaluation. Both strengths and limitations are discussed with some development and examples, and at least one plausible improvement is suggested. Argument is mostly clear and coherent.	**5-6**
Level 2 Some knowledge of peer review is shown. Limited evaluation with brief points about strengths or limitations, but development and examples are shallow. Suggestions for improvement may be present but not well justified.	**3-4**
Level 1 Very limited knowledge or list-like points. Evaluation is minimal or absent. Response lacks organisation and specialist terminology.	**1-2**
Level 0 No creditable content.	**0**

Indicative content:

- AO1: peer review involves independent experts checking manuscripts for methodological soundness, clarity, ethical compliance and novelty before an editor decides on publication.
- AO1: anonymity can be single blind, double blind or open; reviewers typically check sample size, control of variables, operationalisation of variables and appropriateness of analysis.
- AO3 strengths: peer review can catch methodological flaws, improve clarity and reporting, and act as a quality filter that increases trust in published research.
- AO3 limitations: reviewer bias or conflicts of interest can unfairly influence decisions; publication bias favours novel or significant findings over null results and replications; lengthy review times delay dissemination of useful findings.
- AO3 practical issues: variability in reviewer expertise and workload can make reviews inconsistent; anonymity may reduce social pressure but can also reduce accountability for poor reviews.
- AO3 improvements: open peer review or publication of reviewer reports increases transparency; registered reports and pre-registration reduce publication bias by committing journals to publish based on methods not results; editorial checks and training for reviewers can reduce inconsistency and bias; faster processes and clear deadlines can reduce time delays.
- AO3 evaluation: trade-offs exist, for example open review increases accountability but may deter critical comments; registered reports reduce bias but require cultural change in journals and researchers; some improvements may reduce certain problems while creating others, so a mixed approach is often best.