**PSYA4**

**Validating New Knowledge and the Process of Peer Review**

How is peer review important in validating new knowledge and telling fact from fiction?

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Peer review is very important throughout the whole of the scientific community and it has two major functions:

1. Researchers get to read other people’s studies and keep in touch with new ways of thinking and scientific developments. They may also be working on the same topic or think they could improve upon or even disprove someone else’s theory. Knowledge grows through the sharing of information.
2. Studies submitted for publication are subjected to critical appraisal, which acts as a **brake to ensure poor quality research does not enter the public domain.**

Most researchers aim to publish their findings in prestigious scientific journals and there is an agreed format for the way in which work is presented.

Fill in the gaps for the agreed format for publishing psychological research. Then give a brief description of each:

• Title -

• A -

• Introduction -

• M -

• R -

• Discussion -

• R -

• Appendices

![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\QH81ZNJ6\MC900423553[1].wmf]()Having your study published means that the scientific community has given it a seal of approval; **this is very important for university departments as they are assessed for future government funding on the quality of their published research.**

The system of peer review is held in high esteem and begins when a research paper submitted to a journal is considered to be worthy of publication. The editor sends this to other experts (who are generally unpaid) in the field who critically appraise all aspects of the study then return it with their recommendations as to whether the work is of acceptable quality. If not, researchers revise their work and re-submit their paper. This ensures that high standards are maintained.

However, peer review is not infallible and the system sometimes breaks down. Proven cases of fraud are a rarity, but include plagiarism, falsification of data and fabrication of data (UK Parliamentary Office of Science and Technology, 2002).

**Problems:**

![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\8NKS037H\MC900056642[1].wmf]()Bordens and Abbot (2008) refer to the following issues as causes for concern:

* Peer review can act to maintain the status quo and prevent potentially revolutionary research from being published. This is because science is generally very conservative and resistant to large changes in opinion – what we in psychology would refer to as a *paradigm shift, e.g.,* behaviourist theories ushered in a radical change of thinking compared to the causes of behaviour from a psychodynamic viewpoint. If the results of a study do not fit with the accepted existing knowledge, it can be rejected.
* Bias:
	+ ![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DOJLTV0A\MP900431333[1].jpg]()![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\8NKS037H\MP900148484[1].jpg]()Objectivity - a reviewer may strongly support an opposing view, making them less likely to provide an unbiased opinion of the work. Many believe that it is not possible to separate a reviewer from their personal, political or cultural values. Although peer review is supposed to be anonymous, in reality, the research world is very small, especially if the proposed paper is in a highly specialist area. The cloak of anonymity can be used to settle old scores or kill off research that might potentially threaten the reviewer’s own chance of gaining funding. Similarly, the reviewer is more likely to look favourably upon research presented by someone within their social circle.
	+ ![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\8NKS037H\MP900442480[1].jpg]()Institution bias – research from prestigious universities is favoured.
	+ Gender Bias – male researchers seem to be favoured.

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* The ‘file-drawer’ problem – there is a bias towards publishing studies with *positive results*. i.e., those supporting the hypothesis, but negative findings are just as important if we are to achieve a balanced view of research. Negative findings tend to be either rejected or are never submitted for publication. For every study showing positive findings, there could be a hundred with negative results stuffed in university filing cabinets – our understanding of a subject becomes distorted.
1. ![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\DOJLTV0A\MC900174351[1].wmf]()Describe the role of a research ethics committee:
2. Briefly outline why statistically insignificant findings and conflicting evidence between researchers are important for the advancement of knowledge:
3. ![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\2GM72DY4\MC900235379[1].wmf]()Why must the methods and procedures sections in research reports be sufficiently detailed?
4. ![C:\Users\Admin\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\2GM72DY4\MC900078823[1].wmf]()Why might research findings be rejected by peer reviewers?

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1. Outline why replicability is such an important characteristic of science:

**Answer the previous exam question:**

Some psychological researchers produced a report. It was then subjected to peer review before it was published in a journal.

* What is meant by peer review? (2 marks)
* Explain why peer review is an important aspect of the scientific process. (4 marks)